

Public Document Pack



Agenda Supplement 1

Dear Councillor

EXTRAORDINARY COUNCIL - THURSDAY, 8TH NOVEMBER, 2018

I am now able to enclose, for consideration on Thursday, 8th November, 2018 meeting of the Extraordinary Council, the following reports that were unavailable when the agenda was printed.

Agenda No	Item
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| 3. | <u>Brentwood Local Development Plan: Publication (Regulation 19) (Pages 3 - 932)</u> |
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Yours sincerely



Chief Executive

Encs

26/10/18

8 November 2018

Extraordinary Council

**Brentwood Local Development Plan: Pre-Submission
(Regulation 19)**

Report of: *Phil Drane, Director of Strategic Planning*

Wards Affected: *All*

This report is: *Public*

1. Executive Summary

- 1.1 The National Planning Policy Framework (NPPF) requires local planning authorities to produce a Local Plan for their area. Brentwood Borough Council is producing a new Local Plan and has reached Pre-Submission stage (Regulation 19). Once approved, the Plan must be published for public consultation. Once public consultation has concluded, the Council should submit the Plan to the Planning Inspectorate for examination on behalf of the Secretary of State (Regulation 22).
- 1.2 The Pre-Submission Local Plan includes a spatial strategy for how the borough should be managed up to 2033, both for growth that meets local development needs and for maintaining the “Borough of Villages” character. It includes overarching aims to meet local development needs, including housing and employment, by delivering transit-orientated growth that is sustainable, responding to the natural environment and enabling healthy communities.
- 1.3 The Pre-Submission Local Plan is supported by several appendices, part of the wider evidence base, which includes a Sustainability Appraisal (SA) and Infrastructure Delivery Plan (IDP). In addition, several technical studies have been published on the Council’s website to inform and provide further detail on a wide range of themes covered in the Plan.
- 1.4 As part of the plan-making process a revised Local Development Scheme (LDS) timetable has been prepared, taking account of the recent publication of the revised NPPF by Government and implications to the Brentwood Local Plan. Delivery of the Plan against the published timescales is monitored by the Ministry of Housing, Communities and Local Government.

2. Recommendation

2.1 That the Council approve:

- a) The Pre-Submission Local Plan (Appendix A), associated documentation related to Appendices B-G, and all other procedural and evidence documents, for Publication and public consultation under Regulation 19 of the Town and Country Planning (Local Plan) (England) Regulations 2012 (as amended), prior to submission to the Secretary of State.**
- b) The Pre-Submission Local Plan (Appendix A), associated documentation related to Appendices B-G, and all other procedural and evidence documents, for Submission to the Secretary of State under Regulation 22 of the Town and Country Planning (Local Plan) (England) Regulations 2012 (as amended), after public consultation provided that only non-material and minor amendments are required.**
- c) To Delegate authority to the Director of Strategic Planning, in consultation with the Chief Executive and Leader of the Council, to finalise and approve the Submission documents, as set out in b) above for submission to the Secretary of State, including to:**

 - i. Make non-material or minor amendments to the proposed Submission documents;**
 - ii. Undertake any further consultation required arising as a result of the Regulation 19 consultation;**
 - iii. Enter into Statements of Common Ground with relevant bodies before and during the Examination in Public; and**
 - iv. Make modifications to the Submission documents during, and as a result of, the Examination in Public as advised to be necessary by the appointed Planning Inspector.**

3. Introduction and Background

- 3.1 The National Planning Policy Framework (NPPF) requires local planning authorities to produce a Local Plan for their area (Chapter 3 “Plan-making”). Brentwood Borough Council is producing a new Local Development Plan (or ‘Local Plan’) and has undertaken various stages of public consultation as part of the plan-making process. The Local Plan sets out the long-term vision for how and where the Borough will develop over the next 15 years to meet local needs in line with our unique local character, our “Borough of Villages”.
- 3.2 Post amendments made to the national planning regulations and the introduction of a new planning system through publication of the NPPF in 2012, the Council has carried out work as part of Regulation 18 or the early stages of the plan-making process. This includes documents and public consultations on Preferred Options Local Plan in 2013; Strategic Growth Options in 2015; Draft Local Plan in 2016; and Preferred Site Allocations earlier in 2018. During this time the Council has engaged with statutory consultees and Duty to Cooperate bodies throughout as the Local Plan spatial strategy has evolved.
- 3.3 In January 2017 the Council’s expression of interest in response to the Government’s locally-led garden villages and towns scheme, was successfully selected as one of 14 garden villages nationwide (and three garden towns). Proposals for Dunton Hills Garden Village have since progressed through the plan-making process and the Council has successfully secured capacity funding from Government (through the Ministry for Housing, Communities and Local Government, and Homes England).
- 3.4 In November 2017 the Council received a letter from the Secretary of State for the Ministry of Housing, Communities and Local Government regarding the threat of Government intervention in the Brentwood plan-making process. The Council responded in January 2018 with details of the exceptional circumstances for why plan-making is particularly difficult in Brentwood, such as substantially increased (and changing) housing needs; 89% of the borough being within London’s Metropolitan Green Belt; and infrastructure capacity issues. In addition, progress made on strategic planning across South Essex displays the Council’s commitment to joint working so that wider aims for housing delivery and infrastructure investment can be achieved. In March 2018 the Secretary of State confirmed that the Council’s plan-making process would not be intervened, but that the Government would be monitoring progress. Officers remain in regular contact with Officials from the Ministry of

Housing, Communities and Local Government. Discussions have indicated that further departures from the programme set out in the Revised Local Development Scheme (Appendix G) will not be viewed favourably and increase the likelihood of intervention.

- 3.5 On 24 July 2018 the Government published a revised NPPF, which provides a new national policy focus and transitional arrangements for the submission of Local Plans. This superseded the 2012 version and has informed preparation of the Brentwood Local Plan.
- 3.6 In progressing the Brentwood Local Plan, the Council has now reached Pre-Submission stage, or Regulation 19. Once approved the Plan must be published for public consultation. Once public consultation has concluded, the Council should submit the Plan to the Planning Inspectorate for examination on behalf of the Secretary of State, known as Regulation 22 stage. The recommendations of this report enable the Council to swiftly meet these requirements in line with the Revised Local Development Scheme timetable (Appendix G).

4. Issue, Options and Analysis of Options

Evidence

- 4.1 Issues and options, and the evolution of the Local Plan spatial strategy, can be seen across various consultation stages (Regulation 18) that have taken place, leading up to the Pre-Submission Local Plan (Appendix A). The spatial strategy has been informed by evidence available to view on the Council's website.
- 4.2 This includes technical studies on numerous subjects used to inform a variety of themes contained within the Plan, including (but not limited to) assessments on: housing needs; site suitability; economic needs; viability; transport and sustainable travel; environmental studies such as flood risk; Green Belt; landscape character; sports provision; and town centre uses. Several other assessments consider subjects such as health and wellbeing, which is a cross-cutting theme and priority through the Plan's policies.

Pre-Submission Local Plan (Appendix A)

- 4.3 The Pre-Submission Local Plan includes a spatial strategy for how the borough should be managed over the plan period (2016-2033), both for growth that meets local development needs and for maintaining the borough's local "Borough of Villages" character. The spatial strategy

includes an overarching vision and cross-cutting strategic objectives, along with the Plan's policies (both strategic and non-strategic).

4.4 The Pre-Submission Local Plan includes the following proposals:

a) Growth Strategy

- i. **Transit-orientated growth:** Focusing growth in our two transit corridors – the 'Central Brentwood Growth Corridor', with the A12, Great Eastern Main Line to London Liverpool Street Station, and the Elizabeth Line; and the 'Southern Brentwood Growth Corridor', with the A127 and the London, Tilbury and Southend Railway to London Fenchurch Street Station. These form key connectivity axes and growth in these areas will sustainably maximise the benefits of transport infrastructure. While some investment to improve the transport network will be inevitable, this growth strategy ensures economies of scale are reached, with the critical mass of development making it more viable for such investment to occur.
- ii. **Developing Naturally and Sustainably:** Development must be mindful of the ecological sensitivity and disruption to ecosystem services. For this reason, development should take a 'design & build with nature' approach. This will not only plan for resilient and smart infrastructure but also create living environments conducive to human health.
- iii. **Healthy Communities:** Development should balance diverse employment opportunities for all - adapting to a changing economic context - with vibrant hubs of economic and social-cultural activity to provide attractive, connected, walkable, lively and stimulating destinations with necessary facilities, recreation opportunities and services required to sustain healthy communities.

b) Housing and Specialist Housing Need

- i. **Objectively Assessed Need:** Since the first NPPF was published in 2012, local planning authorities have been required to plan for their Objectively Assessed Housing Need, involving a set of calculations informed by evidence and involving wider housing market areas. Objectively Assessed Need for the Borough is 380 homes a year, which over the plan period (2016-2033) is 6,460 new homes. In addition to this, it is good practice to apply an uplift to allow for flexibility in the plan period, where sites may not come forward as planned. A 20% uplift results in provision for 456 homes per year, which over the plan period is 7,752 new homes. In addition, Objectively Assessed Need requires consideration of the backlog of need from previous

years, which has been applied since the introduction of the NPPF in 2012.

- ii. **Standard Method (2017):** In 2017 the Government published a Standard Method for calculating housing need, which was proposed to supersede the calculation of Objectively Assessed Need and housing market areas. The calculation is based on household projections published by the Office for National Statistics and includes an uplift for areas considered to need more affordable housing on the basis of high house prices, like Brentwood Borough. The Standard Method (2017) need for the Borough was 454 homes a year, which over the plan period is 7,718 new homes. The standard method is calculated from the current year and does not contain backlog of need.
- iii. **Standard Method (2018):** In July 2018 the Government published the revised NPPF, which confirmed that the Standard Method should be used to determine local housing need. In September 2018 the Office of National Statistics published a new household projection base (2016), which amended results of the calculation for local authorities. The Standard Method (2018) resulted in a reduction of need for the Borough, to 350 homes a year, which over the plan period is 5,950 new homes. Importantly, before the household projections were published, the Chief Planner for England advised in his Planning Update Newsletter (September 2018) that the Government was aware of the likelihood of significant reduction in the minimum number of homes to be delivered across England and as such, indicated that once the extent of this reduction is known, the method may be adjusted to increase requirements again. Therefore, any reduction in need based on using the current Standard Method is expected to be short-lived, and the Council is therefore advised to note the new figures, but not seek any amendment to the Pre-Submission Local Plan in respect of them.
- iv. **Pre-Submission Local Plan housing provision:** Considering the above context, the Plan continues to provide for housing growth at 380 new homes per year, more than the latest Standard Method need figure (2018), consistent with the current Objectively Assessed Need, and when a 20% uplift is applied this is consistent with the previous Standard Method need figure (2017). This is considered to be a pragmatic approach that recognises the Council's responsibility to provide for local needs with a high degree of certainty for delivery of new homes. The approach to provide a buffer is supported by national guidance and protects the Plan through examination should the Standard Method need figure increase above 380 homes a year.

- v. **Affordable housing:** The Plan proposes that 35% affordable housing be provided on all sites with 11 or more units. This maintains the percentage in the Brentwood Replacement Local Plan (2005) but reduces the threshold. The policy is in line with national guidance, is deemed to be viable by evidence, and will result in the borough meeting its affordable housing needs (subject to total housing provision being delivered).
 - vi. **Provision for Gypsies & Travellers:** The Council has a duty to identify land to meet the local needs of Gypsies, Travellers and Travelling Showpeople. National policy seeks to ensure fair and equal treatment for Travellers. Evidence sets out the Borough's need as 13 pitches. Policy proposes to meet this need by regularising 8 existing unauthorised pitches (Oaktree Farm (Greenacres), Chelmsford Road, Blackmore; and Hunters Green, Albyns Lane, Navestock), and providing 5 new pitches as part of Dunton Hills Garden Village. No current need has been identified in the Borough for accommodation for Travelling Showpeople. However, any need that arises over the life of the Plan is addressed using a criteria-based policy.
- c) Site Allocations**
- i. **Selection of sites:** Led by the spatial strategy and its objectives for maintaining the borough's character, this includes selection of sites according to a transit-corridor approach and settlement hierarchy, ensuring sustainable choices are made about the most appropriate places to grow.
 - ii. **Sequential approach:** This is informed by the settlement hierarchy and prioritises the redevelopment of all available brownfield locations first. Beyond this, options are taken in appropriate locations in urban areas that are greenfield. This is to protect the Green Belt, in line with national policy and guidance. Given the lack of brownfield and sites in urban areas to meet local housing and employment needs, some Green Belt is proposed to be developed where land can be contained and form urban extensions to the Brentwood urban area, and larger villages like Ingatestone. In addition, modest extensions to villages in the north of the borough are proposed to maintain thriving communities where land is considered available and suitable. Finally, the Plan proposes a strategy to create a new garden village at Dunton Hills, providing self-contained development of a size that can deliver local facilities without reliance on existing services at capacity; invest in transport infrastructure improvements in a meaningful way; and deliver a significant quantity of new homes to contribute to overall need. Delivery of a new garden village is consistent with the spatial

strategy to maintain the ‘borough of villages’ character and protects the Green Belt from more piecemeal release.

- iii. **Housing and employment allocations:** Those sites proposed to be allocated in the Pre-Submission Local Plan are the same as those proposed in the Draft Local Plan Preferred Site Allocations (January 2018). Whilst the sites are maintained, fine-tuning has taken place in terms of the approximate development that sites are able to accommodate.
- iv. **Strategic sites:** These are considered to be those that can deliver around 500 homes or more, or significant new employment land. In most cases these are made up of more than one land ownership and so supporting high-level work has been undertaken to identify key considerations and the way in which landowners will need to work together with the Council to deliver sustainable development.
- v. **Site specific policies:** Each site allocation in the Plan has a specific policy to highlight key considerations and relevant infrastructure requirements.

d) Economic Needs and Allocations

- i. **Need and site availability:** Economic needs have remained consistent, as informed by evidence. However, the options for new employment land are limited.
- ii. **Employment land strategy:** The strategy to deliver new employment first looks to intensify, regularise and extend existing employment land. Dunton Hills Garden Village will provide opportunities for mixed-use development with employment opportunities embedded within the new community, and a specific employment land requirement to be met through development of land at East Horndon Hall, adjoining the Dunton Hills Garden Village boundary. This will provide some off-set for the loss of employment nearby due to the redevelopment of West Horndon industrial land.
- iii. **Brentwood Enterprise Park:** This strategic employment site takes the opportunity to allocate brownfield land in the Green Belt at M25 junction 29 (Brentwood Enterprise Park). This site will provide for most of the borough’s employment need and is well located to the strategic highway network, providing a significant business advantage and responding to market needs. A sustainable transport strategy has been developed as part of Transport Assessment evidence to consider how sites in the South Brentwood Growth Corridor can be better linked via walking/cycling and public transport links.
- iv. **Lower Thames Crossing:** The recent publication of Lower Thames Crossing consultation (October-December 2018) shows

proposals at M25 junction 29 that require further discussion and an assessment of options for access arrangements to Brentwood Enterprise Park. A response to the latest Lower Thames Crossing proposals will be prepared and considered by the Council for approval in December 2018.

- e) **Strategic Policies:** These cross-cutting policies implement the Council's strategy for sustainable growth throughout all types of development in the borough. They set out how sustainable development is to be achieved, where development is best placed to ensure accessible and sustainable growth, and what development proposals must respond to. The revised NPPF now requires there to be definition between strategic and non-strategic policies, which are broadly considered to be Development Management policies.
- f) **Development Management Policies:** These policies provide the tools for an effective Development Management service in Brentwood for future years, setting out requirements that planning applications need to respond to. In addition to the subjects mentioned above, these include: housing standards; green & blue infrastructure; climate change; design & place making; heritage; retail & commercial leisure; community infrastructure; Green Belt & rural development; and natural environment.
- g) **Policies Map:** This is the map that accompanies the Local Plan and presents current development policies in map form. For Pre-Submission stage, a list is provided in the Plan of the designations that will change or be removed from the current Brentwood Replacement Local Plan Proposals Map (2005). This includes development allocations by mapping individual sites.

Sustainability Appraisal (Appendix B)

- 4.5 The Pre-Submission Local Plan is informed by several supporting documents (Appendices B-E), that are proposed submission documents, along with the Plan, according to the Regulations. One of these is the Sustainability Appraisal (SA), which includes a Strategic Environmental Assessment (SEA) (Appendix B). The SA is a systematic process that must be carried out during the preparation of a Local Plan to promote sustainable development, by assessing proposals against reasonable alternatives to help achieve relevant environmental, economic and social objectives. The SEA ensures that potential environmental effects are given full consideration alongside social and economic issues.
- 4.6 The scope of the SA is reflected in the list of sustainability topics and objectives that provide the framework for appraisal, such as air quality; biodiversity; climate change mitigation; community and wellbeing;

economy and employment; flooding; heritage; housing; landscape; soils; waste; and water. This follows SA work that has been undertaken at each of the previous Local Plan consultation stages.

- 4.7 Part one of the SA Report explains how work was undertaken to develop and appraise a range of alternative approaches to site allocation, or 'spatial strategy alternatives', to inform the Pre-Submission Local Plan. Part one:
- a) Explains the process of establishing the reasonable spatial strategy alternatives;
 - b) Presents the outcomes of appraising the reasonable spatial strategy alternatives; and
 - c) Explains the reasons for establishing the preferred spatial strategy option, in light of the appraisal.
- 4.8 Chapter 5 of the main report explains how reasonable alternatives were established after the process of evidence gathering and refining options. Following appraisal, a need is identified for plan-makers to make decisions regarding how best to balance competing objectives, and in turn decide which option best represents sustainable development overall. This then informs the establishment of the preferred option; the spatial strategy presented in the Pre-Submission Local Plan.
- 4.9 Part 2 of the SA Report sets out the appraisal findings at this stage by presenting an appraisal of the Preferred Allocations. Appraisal findings are presented as a series of narratives under the 'SA framework' headings, followed by an overall conclusion. Part 3 sets out the next stages by discussing plan finalisation and monitoring.

Habitats Regulation Assessment (Appendix C)

- 4.10 Another proposed submission document is the Habitats Regulation Assessment (HRA). The HRA responds to the requirement for policies, plans or projects with potential to affect designated European sites to undergo assessment under the European Habitats Directive. Whilst there are no European designated habitats within Brentwood Borough, Epping Forest Special Area of Conservation (SAC) is nearby along with other wider environmental considerations, such as the Recreational disturbance Avoidance Migration Strategy (RAMS) work being undertaken in partnership with other Essex boroughs and Natural England in response to the recreational impact on internationally important coastal biodiversity areas.

- 4.11 Conclusions from the HRA make a number of recommendations that have been reflected in policy, such as the need to reflect that development should not be permitted where an adverse effect on the integrity of a European site will result (wildlife and nature conservation); and the need to make specific reference to the interim strategic guidance set out by Natural England in their letter regarding Essex coastal site recreational pressure (RAMS).

Infrastructure Delivery Plan (Appendix F)

- 4.12 The Pre-Submission Local Plan is informed by an Infrastructure Delivery Plan (IDP). The IDP sets out the capacity and opportunities for key infrastructure such as schools, healthcare and transport to inform the growth required through the plan-making process. This is a living document, published online in website form to allow for regular updates over time. For the purposes of Regulation 19, a document version has been created (Appendix F).

- 4.13 A summary of the IDP priorities include:

a) Transport & Movement (Chapter 3)

- i. In the Brentwood urban area, consideration of School Clear Zone restrictions for AM/PM peaks; delivery of park & ride/stride facilities or drop-off/pick-up points for children to and from school; and car-light development and encouragement of electric vehicles/charging.
- ii. To reduce vehicle emissions and future proof infrastructure across the Borough, encouragement of electric vehicle charging points and delivery of other IT infrastructure; consideration of the role of large freight vehicles in central areas during AM/PM peaks; and a review of the air quality management area (AQMA) action plan.
- iii. For public realm improvements, delivery of public wayfinding system (i.e. Legible London); prioritise Brentwood Town Centre improvements linked to new development; and support improvements at Brentwood and Shenfield railway stations.
- iv. Requirements for improvements to walking and cycling infrastructure within new developments, and analysis of wider cycling network.
- v. To improve public transport provision, feasibility study into bus service improvements linked to new development; and the creation of innovations for community transport, car hire/clubs and similar provision for cycling hire/clubs.

- vi. In the Southern Growth Corridor (A127), public realm improvements at West Horndon village centre; a strategic cycle route connecting major development to West Horndon railway station; new bus route infrastructure; and a new West Horndon transport interchange.
 - vii. For Dunton Hills Garden Village, specific consideration of pedestrian/cycle connectivity across A127 & A128; walkways and cycleways across the development; cycle-hub and charging points; and pedestrian focused public realm.
- b) Energy (Chapter 4):** Opportunities to explore the delivery of renewable energy infrastructure, including district or localised heating schemes at strategic sites (Dunton Hills Garden Village, Brentwood Enterprise Park, West Horndon industrial land, land North of Shenfield, and Ford HQ/Warley Depot).
- c) Water & Drainage (Chapter 5)**
- i. Sewage network upgrade in Ingatestone;
 - ii. Surface Water Flood risk mitigation across a wide range of sites; and
 - iii. Hydrology modelling and layout design for potential flooding at Officer's Meadow and Dunton Hills Garden Village.
- d) Waste (Chapter 6)**
- i. Warley Depot relocation, rebuild or alternative service delivery needs to be resolved;
 - ii. Encourage the introduction of underground refuse and recycling facilities; and
 - iii. Community composting.
- e) Broadband and Mobile Communications (Chapter 7)**
- i. Establish a wider range of fibre optic cabling infrastructure options;
 - ii. Encourage Fibre to the Home infrastructure delivery on new sites (FTTH); and
 - iii. Need to upgrade mobile communications infrastructure for further advancements in 5G and mobile tech.
- f) Education (Chapter 8)**
- i. New 2fe primary school with pre-school as part of land North of Shenfield allocation;
 - ii. Forecast need for three new 2fe primary schools at Dunton Hills Garden Village;
 - iii. Forecast need for 6fe secondary school at Dunton Hills Garden Village; and
 - iv. Significant investment need for early years provision across the Borough.
- g) Community & Social (Chapter 9)**

- i. New multipurpose community building at Dunton Hills Garden Village;
 - ii. Community investment chest for Dunton Hills Garden Village with supporting organisational structure;
 - iii. Maximise current community assets across the Borough; and
 - iv. Establish list of rural priorities.
- h) Health (Chapter 10)**
- i. Identified need for investment in GP health infrastructure across the Borough;
 - ii. New health centre / practice at Dunton Hills Garden Village, subject to option analysis on possible options for integration with other nearby services and facilities; and
 - iii. Potential for funding towards Basildon Hospital expansion.
- i) Heritage (Chapter 11):** Support for local heritage projects, signage and interpretation as part of redevelopment proposals.
- j) Sport (Chapter 12)**
- i. Need for 3G multi-sport play pitches;
 - ii. Multiple play pitch / sports facility upgrades; and
 - iii. Feasibility work supported on potential strategic sport investment sites (i.e. King Georges and Brentwood Centre).
- k) Emergency Services (Chapter 13):** Potential flexible drop-in / surgery space within multi-agency facilities.
- l) Green Infrastructure (Chapter 14)**
- i. Continue to protect Local Wildlife Sites and ancient woodland;
 - ii. Identified range of improvements for parks and churchyards;
 - iii. New allotment space required as part of strategic growth sites; and
 - iv. Monitor and manage numbers to key green infrastructure assets.

Local Development Scheme (Appendix G)

- 4.14 The Local Development Scheme provides information on the preparation of key documents that will comprise the Borough's development plan. Most importantly it provides a timetable for anticipated stages of the plan-making process.
- 4.15 Section 15 of the Planning and Compulsory Purchase Act 2004 (as amended by the Localism Act 2011) requires local planning authorities to prepare and maintain a Local Development Scheme. Planning Practice Guidance sets out that Local Development Schemes must be made available publicly and kept up-to-date so that local communities and interested parties can keep track of progress.

- 4.16 The revised timetable set out in Appendix G provides timescales and key milestones for preparation of the Local Plan, and other related documents. This has been revised following the Government's publication of the revised NPPF in July 2018 and the need for more time to consider implications in the Local Plan.
- 4.17 Delivery of the Plan against the published timescales set out in the Local Development Scheme is monitored by the Ministry of Housing, Communities and Local Government.

5. Reasons for Recommendation

- 5.1 In progressing the Brentwood Local Plan, the Council has now reached Pre-Submission stage, or Regulation 19. According to National Planning Practice Guidance this plan should be the document that the local authority considers ready for examination. This Plan must be published for public consultation so that representations can be made in response to it, together with other "proposed submission documents" (Appendices B-E), before it can be submitted to the Planning Inspectorate for examination. This provides a formal opportunity for the local community and other interests to consider the Local Plan, which the local planning authority would like to adopt. Specific publication requirements are set out at regulations 17, 19 and 35 (and 21) of the Town and Country Planning (Local Planning) (England) Regulations 2012. The Pre-Submission document is set out in Appendix A, along with other proposed submission documents set out in Appendices B-G.
- 5.2 Once public consultation has concluded and representations on the Pre-Submission Local Plan have been received, the Council should submit the Plan and any proposed changes considered appropriate along with supporting documents to the Planning Inspectorate for examination on behalf of the Secretary of State. This is Regulation 22 stage. A Statement of Representations Procedure should also be published alongside the submission version of the Plan. Submitted documents should include those made available at the Pre-Submission or Publication stage (Regulation 19), updated as necessary, including details of who was consulted when preparing the Plan (at Regulation 18 stage) and how the main issues raised have been addressed. The Council must also include details of the representations made following Pre-Submission and a summary of the main issues raised.
- 5.3 The Council could resolve to make minor, non-material amendments to the Pre-Submission Local Plan. If these changes are minor in nature (i.e. do not result in any material changes to the Local Plan's policies), the

Plan can proceed to Regulation 19 public consultation subject to these amendments. However, this could result in a minor delay to the beginning of public consultation, although this will not require amendments to the Revised Local Development Scheme (Appendix G) that the Government is using to monitor the Council's progress on the Local Plan.

- 5.4 The Council could resolve to make material amendments to the Pre-Submission Local Plan policies, including adding or deleting policies or amending proposals. These would not be able to proceed immediately to Publication (Regulation 19) or Submission (Regulation 22) without being subject to statutory processes, such as Sustainability Appraisal. Changes may require further engagement with statutory consultees or Duty to Cooperate bodies, following which, further changes may be necessary to the documents to take legal considerations into account. This would incur additional costs to the Council and time to reach Publication stage. This would require further amendment of the Local Development Scheme, which the Government is using to monitor the Council's progress on the Local Plan, increasing the risk of intervention.
- 5.5 Delegated authority for the Director of Strategic Planning, in consultation with the Chief Executive and Leader of the Council, is recommended to ensure non-material amendments can be made from the Publication stage through to Submission and Examination. This recommendation is considered to be the most efficient way of progressing the Plan to Submission, whilst ensuring Members remain in control of any main modifications, which would affect the policy content.
- 5.6 The Pre-Submission Local Plan has been prepared swiftly during 2018, taking account of the Government's threat of intervention and publication of the Revised NPPF. The Extraordinary Council version of the Pre-Submission Local Plan (Appendix A) may require minor formatting amendments and improvements to graphics before being issued for public consultation.

6. Consultation

- 6.1 The Local Plan has undergone a series of public consultations in past years, known as Regulation 18 stage. The Plan has now progressed to Pre-Submission or Publication stage (Regulation 19). According to statutory requirements a minimum period of six-weeks is required for public consultation. Public consultation at Regulation 19 stage requires representations to reference whether the Plan is considered to be "sound" according to the tests of soundness set out within the NPPF (paragraph 35). Following this the Council will collate representations for the

Submission of the Plan, so that the appointed Planning Inspector can consider the representations at Examination in Public.

- 6.2 If the Pre-Submission Local Plan is approved for public consultation, the soonest consultation can commence in early November will result in the end of the six-week period clashing with the Christmas holiday season. Therefore, it is proposed that public consultation be extended to an eight-week period to take account of this, ending in early-mid January 2019. This will allow sufficient time for the Submission process to begin post consultation, and for submission to occur within quarter 1 of 2019, in line with the revised Local Development Scheme (Appendix G). This will demonstrate to the Secretary of State that the Council is not intending to delay submission.
- 6.3 Consultation starting in mid-November, provided approval of the Pre-Submission Local Plan, will also allow for the Brentwood Town Centre Design Guide to be published alongside the Plan for public consultation. The Design Guide will provide further detail about expectations for quality in Brentwood Town Centre.
- 6.4 Methods of informing people about the consultation will be in line with the Council's Statement of Community Involvement (SCI). Those who have previously responded to Local Plan consultations will be notified through use of the Local Plan consultation database. In addition, use of the Council's business contact database will ensure local businesses are notified of the consultation.

7. References to Corporate Plan

- 7.1 The Local Development Plan is a key priority in the Council's 'Vision for Brentwood' Corporate Plan 2016-2019. The Plan is an important delivery vehicle for several cross-cutting priorities, informed by individual Council strategies.

8. Implications

Financial Implications

Jacqueline Van Mellaerts, Interim Chief Finance Officer

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- 8.1 The cost of carrying out Local Plan consultation at Publication stage, submitting the Plan and accompanying documentation, and running the Examination-in-Public, has been accounted for within the planning policy service budget of the medium-term financial plan. In addition to this,

earmarked reserves of received specific Grants have been utilised to aid and ensure the Plan is delivered within the specified timeframes.

- 8.2 The Council's Infrastructure Delivery Plan (Appendix F) sets out the infrastructure costs of delivering the Plan. This identifies approximate costs for infrastructure investment where required because of new development, to be funded by new development. Any funding gaps will require alternative revenue to be found which could involve the Council. This is a living document and so will be updated regularly through the plan-making process. There is not a requirement for all the funding for the Plan to be identified at the time of inception and so this should not delay the Pre-Submission consultation.

Legal Implications

Daniel Toohey, Head of Legal Services and Monitoring Officer
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- 8.3 This is a necessary consultation within the statutory requirements and the Council's adopted Statement of Community Involvement.
- 8.4 The Local Plan has been prepared in accordance with the primary planning acts, namely the Town and Country Planning Act 1990 (as amended), the Planning and Compulsory Purchase Act 2004 (as amended) and other supporting legislation. It has been informed by the National Planning Policy Framework (NPPF) and other relevant national planning policy. Detailed regulations in relation to plan-making are set out in the Town and Country Planning (Local Planning) (England) Regulations 2012 (as amended). It is a requirement of the Acts and the associated Regulations for the Local Plan to be prepared in accordance with the timetable established in the statutory Local Development Scheme, and subject to an examination into its soundness.
- 8.5 The NPPF sets out national policy in relation to what constitutes sustainable development, plan-making, and the tests of soundness that the Planning Inspector will consider when examining the Local Plan. The NPPF provides a transition date for plans submitted before or after 24 January 2018. Plans submitted on or before this date will be examined against the tests of soundness and policy requirements of the NPPF 2012. For plans submitted after this date, the examination will occur against the tests of soundness and policy requirements of the Revised NPPF 2018.

Other Implications (where significant) – i.e. Health and Safety, Asset Management, Equality and Diversity, Risk Management, Section 17 – Crime & Disorder, Sustainability, ICT.

- 8.6 The Plan is accompanied by a Health Impact Assessment (HIA) (Appendix D). An HIA is undertaken to identify the potential health

consequences of a proposal on a specific population and/or community; maximise the positive health benefits; and minimise potential adverse effects on health and inequalities. The HIA demonstrates at a local level the impacts that development can have on health and wellbeing, and where there are opportunities to enhance health gains and mitigate against negative impacts. The HIA has informed the Pre-Submission Local Plan and led to the recommendation that the process be further embedded to the Brentwood planning process. The HIA is a live document and regular updates will be made as required.

- 8.7 The Plan is accompanied by an Equality Impact Assessment (EqIA) (Appendix E). This assessment is a process designed to ensure that a policy, project or scheme does not discriminate against any disadvantaged or vulnerable people. The Plan's policies have been assessed accordingly. The EqIA is a live document and regular updates will be made as required.
- 8.8 The Plan proposes to allocate development sites across the Borough, including sites owned by the Council. Proposals in the Local Plan have taken account of the Council's Asset Development Project to identify a joint venture partner to bring forward future development on Council owned land. Future development proposals will need to comply with the Plan, once adopted, and take account of emerging policy from Pre-Submission stage through to the examination process.
- 8.9 The Plan is a key delivery vehicle for the Council's corporate objectives and strategies. Council strategies that have been considered in the preparation of the Plan include, but are not limited to, the Leisure Strategy, Housing Strategy, Economic Strategy, and Parking Strategy. Reviews of these strategies will need to consider the Local Plan's strategic objectives and policies.
- 9. Background Papers** (include their location and identify whether any are exempt or protected by copyright)
- 9.1 Previous stages of the Local Plan, including consultation documents and supporting work, can be viewed on the Council's website at <http://www.brentwood.gov.uk/index.php?cid=1650> (Planning and Building Control / Local Development Plan / Work So Far).
- 9.2 All published evidence for the Local Plan can be viewed on the Council's website at <http://www.brentwood.gov.uk/index.php?cid=966> (Planning and Building Control / Local Development Plan / Evidence Base).

10. Appendices to this report

- Appendix A: Pre-Submission Brentwood Local Plan (Regulation 19), October 2018 (Extraordinary Council version)
- Appendix B: Sustainability Appraisal, October 2018
- Appendix C: Habitats Regulations Assessment, October 2018
- Appendix D: Health Impact Assessment, October 2018 (living document)
- Appendix E: Equality Impact Assessment, October 2018 (living document)
- Appendix F: Infrastructure Delivery Plan, October 2018 (living document)
- Appendix G: Revised Local Development Scheme (October 2018)

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Brentwood Local Plan

Pre-Submission (Publication Draft)

Regulation 19

October 2018

Extraordinary Council Version

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Published October 2018

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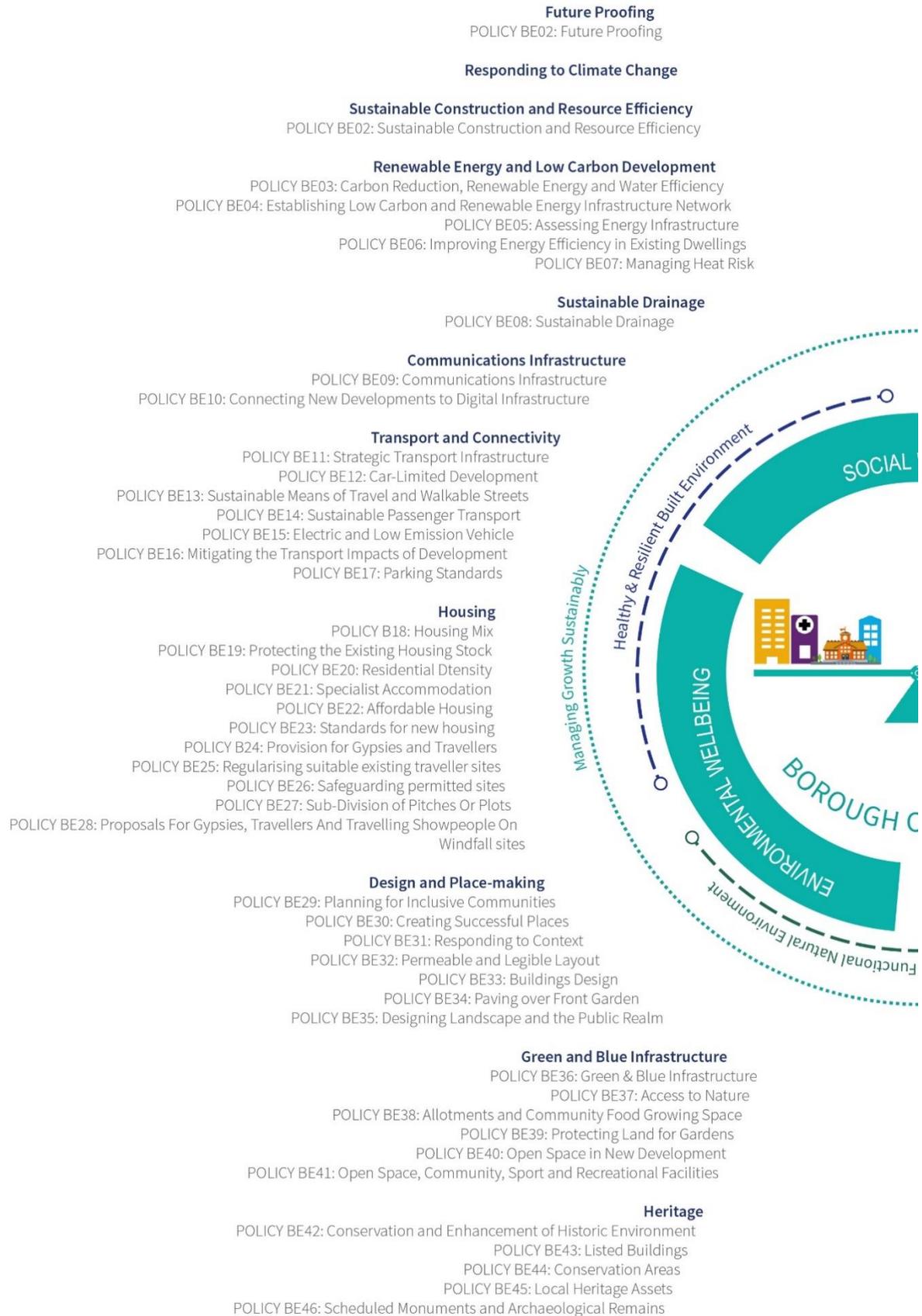


Figure 1.1: Document Structure

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01



1. Introduction

Brentwood Local Plan 2016-33

- 1.1 This Pre-Submission Local Plan (Publication Draft, Regulation 19) Local Plan presents Brentwood Borough Council's vision for how the borough will develop over the next 17 years, from 2016 to 2033. It outlines the Council's strategic priorities and sets out a Spatial Strategy and supporting policies for achieving this vision.
- 1.2 The Plan identifies locations to deliver local housing needs and supporting infrastructure, such as employment, retail, leisure, community and transport. It allocates land for appropriate development, sets out strategic planning policies and an overall strategy to guide decisions on the location, pattern, scale, and quality of development and/or changes in the way land and buildings are used.
- 1.3 Once adopted, the Local Plan will be a statutory document and a material consideration in determining planning applications.
- 1.4 Policies and proposals set out in this document are also illustrated on the Policies Map. The map identifies areas of opportunity within the borough for employment and housing, as well as important local assets that will be protected and, where possible, enhanced.

Plan Period and Review

- 1.1 The Plan period is from 2016 to 2033 inclusive. Considering the lead-up to adoption, this will ensure the period shall be for a minimum of 15 years. Nevertheless, the Local Plan will not remain a static document and will, in line with the legal requirement set out in Regulation 10A of the Town and Country Planning (Local Planning) (England) Regulations 2012 (as

amended), be reviewed at least every five years to ensure it is still delivering on its strategic priorities in the best way possible.

- 1.2 At the time of writing, there are many global challenges in flux that could alter the outlook of the Plan; for example, the decision to leave the European Union; technological advancement especially in relation to the transport and utility sectors; new housing calculation methodologies; and joint strategic work across South Essex. While these conditions have been taken into consideration as far as possible to ensure the future-proofing of the Plan, it will be necessary to ensure that changing circumstances are reflected within the Plan Period. The Council will maintain a watching brief on advancements and respond accordingly.

Plan-Making Process & Next Steps

Local Plan Regulation 19 Stage

- 1.3 This document constitutes the Pre-Submission Local Plan (Publication Draft), published in accordance with Regulation 19 of the Town and Country Planning (Local Planning) (England) Regulations 2012 which Brentwood Borough Council propose to submit to the Secretary of State.
- 1.4 This Plan has been informed by representations received in response to previous consultations, including Preferred Options in 2013; Strategic Growth Options in 2015; Draft Local Plan in 2016; and Preferred Site Allocations in January 2018. The consultation process so far is depicted in Figure 1.2. All consultation documents and assessments of representations received are available to view on the Council's website at www.brentwood.gov.uk/localplan.
- 1.5 This Pre-Submission consultation is the final stage before the Local Plan is submitted to the Secretary of State for an Examination-in-Public, to be undertaken by an Independent Planning Inspector. In accordance with Regulation 20 of The Act, any person may make representations on Pre-Submission Local Plan. Representations must be received by Brentwood Borough Council by the date specified in the statement of representations procedure.
- 1.6 Representations received will form a Statement of Consultation and be published alongside an updated Local Plan showing the proposed modifications as a result of the Regulation 19 Consultation.

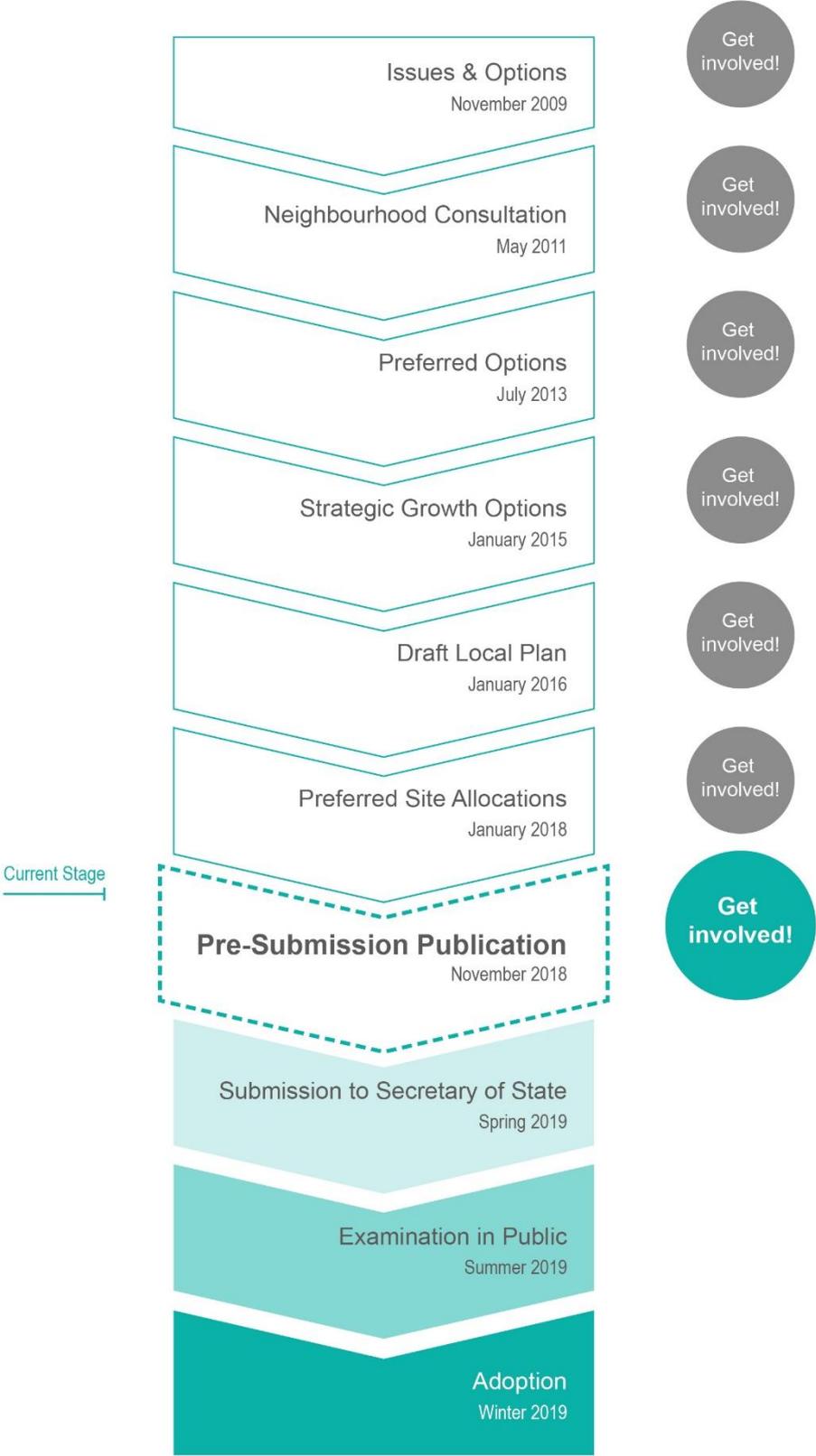


Figure 1.2: Consultation Process So Far

Duty to Cooperate

- 1.7 Brentwood Borough Council has a duty to engage constructively, actively and on an ongoing basis with neighbouring local planning authorities, the County Council and other statutory public bodies to ensure strategic issues that may impact the wider area are considered. This includes cross boundary issues such as transport, flooding, and environmental impacts.
- 1.8 This legal requirement was set out in Section 110 of the Localism Act 2011 and the further amendment of section 33A of the Planning and Compulsory Purchase Act 2004. Maintaining effective cooperation is also reinforced by NPPF (2018) paragraphs 24-27, which calls for one or more 'Statements of Common Ground' to be prepared and maintained on cross-boundary matters being addressed and progress in cooperating to address these. These are to be made publicly available.
- 1.9 The Council is committed to cooperate with neighbouring authorities and key organisations on strategic planning issues. Since January 2018, a Memorandum of Understanding was signed between Basildon, Brentwood, Castle Point, Essex County, Rochford, Southend-on-Sea and Thurrock Councils – forming the Association of South Essex Local Authorities (ASELA), which agreed to jointly work on 'place vision' for the region. This new venture will continue to look across borough boundaries. This work is progressing at early stages and Brentwood Borough Council is committed to engaging with partners as discussions and evidence gathering progresses through the plan-making process.
- 1.10 The Council will publish a Duty to Co-operate Position Statement to describe the ongoing engagement and providing an update on the activities undertaken so far.
- 1.11 In addition, the Council will continue to have regards to neighbouring authority plans, Essex County Council plans, and strategies of other relevant bodies.

Evidence Base

- 1.12 The Pre-Submission Local Plan is supported by evidence from a variety of sources, which can be found on the Council's website at www.brentwood.gov.uk/localplan.
- 1.13 Evidence is presented in the form of technical studies that identify key issues and strategic priorities for transport, leisure, housing, among others. The Council has carried out a Sustainability Appraisal to test the evidence underpinning the Plan and help demonstrate that the Plan, when judged against reasonable alternatives, will help achieve sustainable development; and undertaking engagement and consultation to address issues being raised by local communities and other interested parties. This approach has shaped preparation and content of the Local Plan.
- 1.14 Additionally, a Brentwood Borough Profile has been developed, serving as an illustrative summary of the borough's key issues that have been considered as part of the plan-making process.

Sustainability Appraisal

- 1.15 In line with the Environmental Assessment of Plans and Programmes Regulations 2004, a Sustainability Appraisal (SA) has been carried out at key stages in the plan-making process. The Sustainability Appraisal recommendations at each stage have informed the production of this Pre-Submission Local Plan.
- 1.16 The SA has considered potential impacts of the Plan on economic, social and environmental considerations and how they can be mitigated. It has also considered several reasonable alternatives to ensure Brentwood's growth strategy is sound. The Sustainability Appraisal is available for public consultation alongside the Pre-Submission Local Plan.

Habitats Regulation Assessment

- 1.17 In accordance with Regulation 61 of the Conservation of Habitats and Species Regulations 2010, a Habitats Regulation Assessment (HRA) screening has been undertaken to determine whether the Pre-Submission Plan is likely, either alone or in combination with other plans and projects, to have a significant adverse impact on an internationally important habitat sites.
- 1.18 To assess in-combination impacts of new development, the need to prepare a Recreational disturbance Avoidance and Mitigation Strategy (RAMS) has been identified for the Essex Estuaries and Coastal sites. A RAMS is being prepared to cover these sites, with a view to their subsequent adoption as a Supplementary Planning Document (SPD) by the Council. With residential development that is likely to affect the integrity of European Sites, being required to either contribute towards mitigation measures identified in the RAMS or, in exceptional circumstances, identify and implement bespoke mitigation measures to ensure compliance with the Habitat Regulations.
- 1.19 Similar work assessing impact on the Epping Forest is being considered by the Council and partners.

Planning Policy Context

- 1.20 The Local Plan has been prepared in line with the relevant Acts (Planning and Compulsory Purchase Act 2004; the Localism Act 2011; and the Town and Country Planning (Local Planning) Regulations 2012). It also takes account of the National Planning Policy Framework (2012 & 2018), Planning Practice Guidance and national planning policies (Planning Policy for Traveller Sites 2015).
- 1.21 This Local Plan must be read as a whole. Proposals will be considered against all relevant policies set out in this Plan. Additionally, this Local Plan will sit alongside other key policy

documents that currently exist or that may come forward during the lifespan of the Plan, which together will form the borough's development framework and be used to make decisions on planning applications:

- a. Essex County Council plans, such as transport strategies, education plans, economic growth priorities, and minerals & waste policy;
- b. Future neighbourhood plans, which will provide more detailed planning policies to help shape the development of specific neighbourhoods; and
- c. Future sub-regional plans, such as the South Essex Joint Strategic Plan.

Minerals Local Plan

- 1.22 Essex County Council is the Minerals Planning Authority for the Borough. The County Council is responsible for preparing planning policies and assessing applications for mineral development. The Essex Minerals Local Plan (2014) forms part of the statutory Development Plan and should be read alongside the Brentwood Local Plan. The role of the Minerals Local Plan is to ensure a steady and adequate supply of mineral resources to facilitate development over the Plan period and beyond.
- 1.23 There are currently no active quarry sites in Brentwood. However, there are unworked sand and gravel deposits which are subject to a Minerals Safeguarding policy within the Essex Minerals Local Plan 2014. The safeguarding policy requires that Essex County Council, as minerals planning authority, be consulted on development proposals covering 5 hectares or more within the sand and gravel Minerals Safeguarding Area.
- 1.24 Requirements of the Minerals Local Plan need to be considered where a development falls within a Minerals Safeguarding Area. The Minerals Local Plan also designates Mineral Consultation Areas at a distance of 250m around active quarries, mineral infrastructure and mineral deposits permitted for extraction. Essex County Council must be consulted on all non-mineral related development proposed within these Consultation Areas.

Waste Local Plan

- 1.25 Essex County Council is also the Waste Planning Authority for the Borough. The County Council is responsible for preparing planning policies and assessing applications for waste management development. The Essex and Southend-on-Sea Waste Local Plan was adopted in July 2017 forming part of the statutory Development Plan and should be read alongside the Brentwood Local Plan. The Waste Local Plan covers the period 2017 to 2032. It sets out where and how waste management developments can occur and contains the policies against which waste management planning applications are assessed.
- 1.26 The Essex and Southend-on-Sea Replacement Waste Local Plan does not propose any new waste development in Brentwood.
- 1.27 However, the Waste Local Plan does identify a number of areas of search across the county where the Waste Planning Authority may support development outside of allocated waste

sites. These areas of search are all existing industrial estates, and any waste use proposed on these estates will be required to be in keeping with existing development. The Waste Local Plan seeks to focus any new proposals for waste management facilities, which support local housing and economic growth, within these areas of search before other locations are considered. Two are proposed for Brentwood Borough, at Childerditch Industrial Estate and West Horndon Industrial Estate.

- 1.28 The Plan also designates Waste Consultation Areas at a distance of 250m around permitted and allocated waste management facilities. Essex County Council must be consulted on all non-waste related development within these areas to ensure that the proposed development would not adversely impact on their existing or future operation. The Policies Map identifies existing Waste sites within the Council's area.

South Essex Joint Strategic Plan

- 1.29 In Summer 2017, the Leaders and Chief Executives of South Essex – Basildon, Brentwood, Castle Point, Rochford, Southend-on-Sea, Thurrock and Essex County Council – embarked on a process to develop a long-term growth ambition that would underpin strategic spatial, infrastructure and economic priorities across the sub-region. The 'South Essex 2050 Ambition' is now being taken forward through a number of workstreams, including a spatial strategy delivered through a Joint Strategic Plan (JSP).
- 1.30 In January 2018, the authorities formed the Association of South Essex Local Authorities (ASELA) to ensure that implementation of the ambition has strong leadership and is managed on a truly collaborative basis.
- 1.31 A key task arising from the new joint working arrangements is the preparation of a Joint Strategic Plan. There is an ambition for this to deliver the homes and jobs needed in South Essex through partnership working, not just at a local level, but also with Government, to bring forward the strategic infrastructure improvements to transport, education, health and green infrastructure that are needed to support growth.
- 1.32 Work on the Joint Strategic Plan is at an early stage with adoption expected in 2020. The Brentwood Local Plan will contribute towards some of the growth requirements early in that Plan. However, following the adoption of the Joint Strategic Plan it may be necessary to review the Brentwood Local Plan, at least in parts, to ensure any opportunities for further growth and infrastructure provision in the Borough identified in the Joint Strategic Plan can be realised.

Local Enterprise Partnership

- 1.33 The South East Local Enterprise Partnership (LEP) is the business-led, public/private body established to drive economic growth across Essex, Kent and East Sussex. Whilst the LEP has no statutory land use planning powers, it is responsible for determining local economic priorities and undertaking activities to encourage economic growth and local job creation. The Council will continue to work with the LEP and partners to realise economic growth potential in the borough.

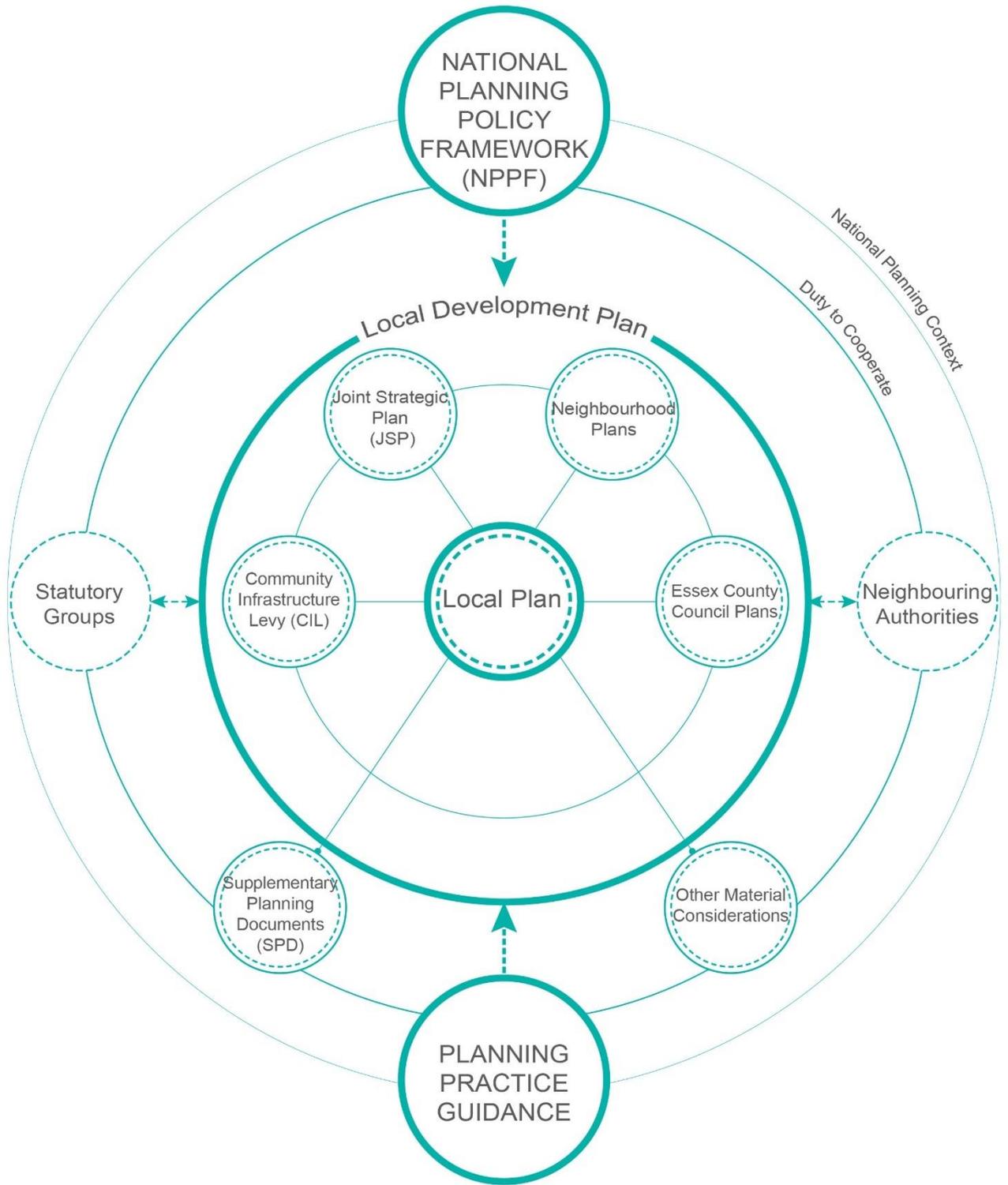


Figure 1.3: Local Plan Policy Context



1. Borough of Villages

Introduction to Borough Profile

- 1.1 The following paragraphs set out the context of the Borough and the key issues that should be addressed when planning for its future. Illustrative infographics summarise some of the key issues at the end of the chapter in Figure 2.5 (parts 1 & 2).
- 1.2 The supporting document “Brentwood Borough Profile” further details the borough context, providing a baseline study of key borough characteristics, which can be viewed online at www.brentwood.gov.uk/localplan.

Location

- 1.3 Located in the south-west of the county of Essex and east of Greater London, Brentwood Borough is set within the Essex Countryside. The borough has easy access to the countryside as well as to London, along established road and rail networks. Our location offers the best of both worlds, making Brentwood an attractive place to live, work and visit.
- 1.4 Being set within London’s Metropolitan Green Belt poses some development constraints. However, it also sets a foundation for a creative and innovative response to sustainable development where the principles of ‘designing and building with nature’ can be embedded to create and enhance neighbourhoods that deliver health and wellbeing for all.

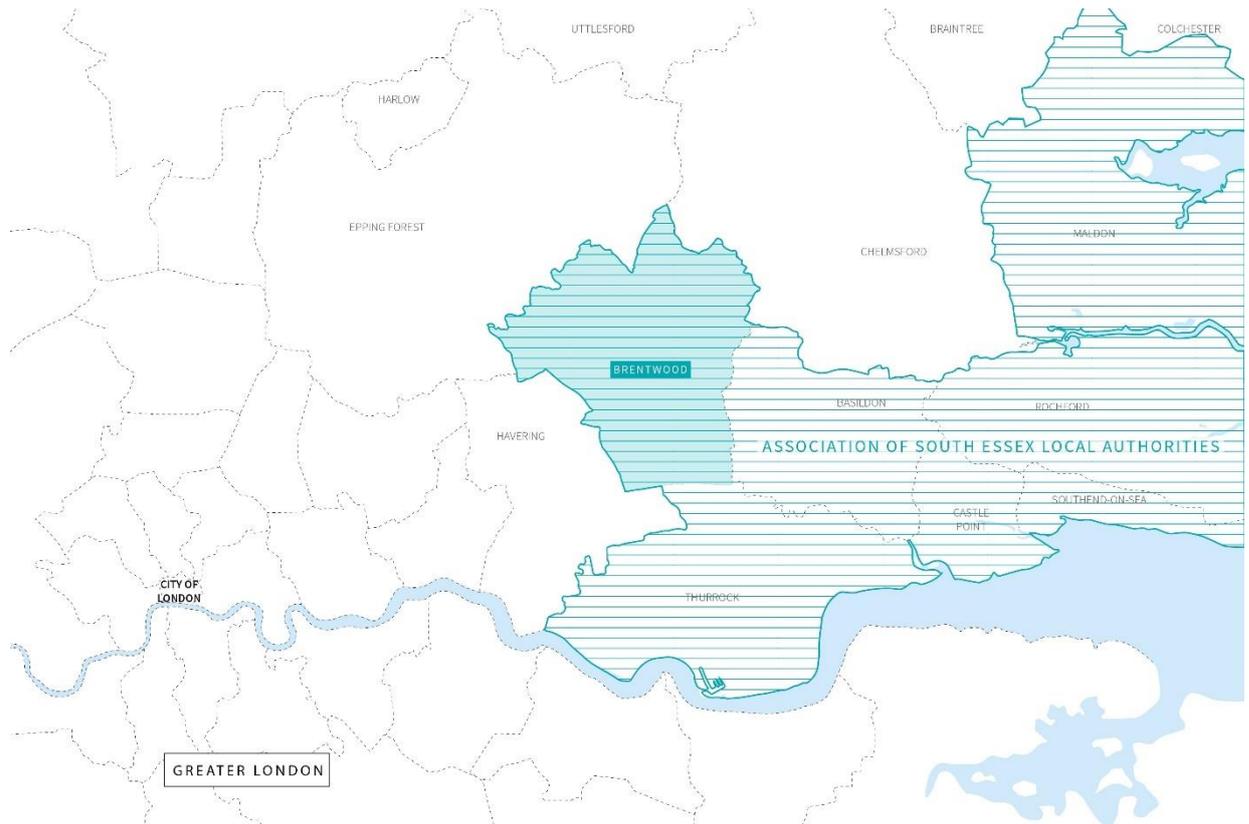


Figure 2.1: Brentwood Borough location

Origin

- 1.5 Brentwood's hamlet origins can be traced back to the 11th Century, with its name (Burnt Wood) signifying the clearings made by fire of the Great Forest of Essex. Administratively, Brentwood evolved as a Parish, later as the Brentwood Urban District. Brentwood's development was due mainly to its position on the higher grounds in the parish, at the junction of the main London to Colchester road and the Ongar-Tilbury Road.
- 1.6 St. Osyth's abbey, Lord of the manor of Costed was licensed to hold the first market and fair here in 1227. The market grew in prominence due to its convenient location, and Brentwood as a 'market town' started to evolve. The urban district was eventually abolished by the Local Government Act 1972, as the district grew to encompass the nearby parishes of Ingatestone, Mountnessing, Doddinghurst and others. It gained borough status in March 1993, characterised by the suburban core of Brentwood and Shenfield surrounded by a series of villages, thereby giving rise to its dominant character as a 'Borough of Villages'
- 1.7 From its hamlet to market town origins, Brentwood is today considered an attractive residential borough with a short commute to London or Chelmsford, and is also home to a number of notable industries.

Settlement Hierarchy

1.8 To promote sustainable growth in rural areas, the NPPF (2018) paragraph 78 states that housing in rural areas should be located where it will enhance the vitality of rural communities, to ensure villages grow and thrive. To ensure the Local Plan responds to this, a broad Settlement Hierarchy Assessment has been undertaken to understand the role, function and relationship of Brentwood's dispersed settlements (Figures 2.2 & 2.3).

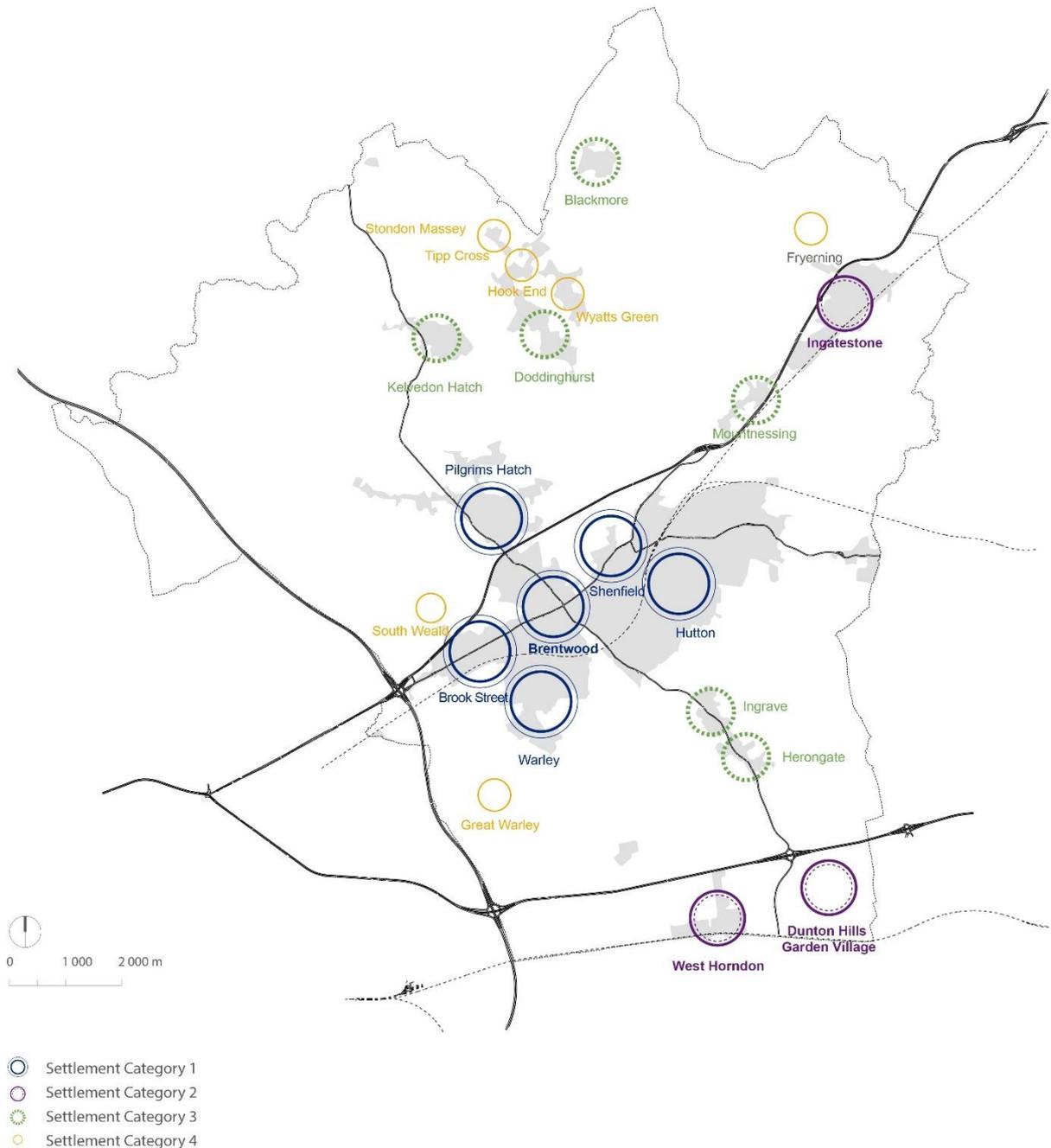


Figure 2.2: Brentwood Borough settlements

- 1.9 Figure 2.3 sets out the Borough's Settlement Hierarchy categories, to identify their role (constraints and opportunities) for delivering sustainable growth and how their heritage character might inform future change.
- 1.10 The settlement hierarchy should not be confused with the Retail Town Centre Hierarchy categories detailed in Chapter 6.

Type of Settlement	Settlement Name	Population ¹
Settlement Category 1		
<p>Large towns and urban neighbourhoods in compact urban settings that collectively form the Brentwood Urban Area. They provide a wide range of services and opportunities for employment, retail, education, health and leisure facilities to the immediate residential areas as well as to the wider population in the Borough. They are typically highly accessible and well served by public transport provision, including rail services, and existing infrastructure.</p> <p>Development opportunities should focus on making the best use of land, with higher density and brownfield redevelopment being prioritised, consistent with local character. Infrastructure capacity should inform the appropriate level of development and development contribution.</p>		
Large town	Brentwood	22,410
Large town	Shenfield	20,790
Urban neighbourhood	Hutton	1,405
Urban neighbourhood	Pilgrims Hatch	5,632
Urban neighbourhood	Warley	2,213
Urban neighbourhood	Brook Street	1,093
Settlement Category 2		
<p>Larger villages in a rural setting, with high levels of accessibility and public transport provision, including rail services. They provide a range of services and facilities to the immediate residential areas and nearby settlements.</p> <p>Appropriate urban extension and brownfield redevelopment opportunities will be encouraged to meet local needs. The level of development in these settlements should consider their infrastructure constraints and setting.</p>		
Large village	Ingatstone (including Heybridge)	4,812

Large village	West Horndon	1,537
Garden village	Dunton Hills	n/a ²
<p>Settlement Category 3</p> <p>Villages in a sparse rural setting that provide day to day needs for local residents.</p> <p>Brownfield redevelopment opportunities will be encouraged to meet local needs where appropriate, and limited urban extensions. Development should be appropriate to the rural setting of the area.</p>		
Rural village	Blackmore	829
Rural village	Doddinghurst	2,550
Rural village	Herongate	1,846
Rural village	Ingrave	
Rural village	Kelvedon Hatch	2,124
Rural village	Mountnessing	494
<p>Settlement Category 4</p> <p>Remote and small rural villages and hamlets, with poor public transport, limited shops, jobs and community facilities; some of these settlements rely on nearby settlements for services. Development opportunities are limited, although as with larger villages brownfield redevelopment opportunities will be encouraged to meet local needs where appropriate.</p>		
Rural village in a sparse setting	Wyatt's Green	tbc
Rural village in a sparse setting	Hook End	tbc
Rural village in a sparse setting	Stondon Massey	tbc
Rural village in a sparse setting	Fryerning	tbc
Rural village in a sparse setting	Great Warley	tbc
Rural village in a sparse setting	Little Warley	tbc
Rural village in a sparse setting	South Weald	tbc

² Dunton Hills Garden Village is a new settlement planned for at least 2,500 dwellings in the plan period with connections to nearby West Horndon railway station. More details can be found in Chapter 8.

Other hamlets in the Borough, which are more isolated and dispersed with limited connectivity and services. They mainly rely on nearby settlements for services and therefore not suitable for new development.

Figure 2.3: Settlement Hierarchy

Settlement Category 1

- 1.11 Brentwood Urban Area, made up of semi-connected settlements such as Brentwood, Shenfield, Hutton, Warley, Brook Street, and Pilgrims Hatch. Brentwood is the Borough's largest settlement and only town. Accessible and well served by public transport, with rail stations at Brentwood and Shenfield, the town provides a range of shopping, employment areas, secondary schools, health and leisure facilities in close proximity to residential areas.
- 1.12 Within this settlement category, Brentwood and Shenfield offer the most scope to develop in accordance with sustainable development principles. Urban extensions into Green Belt are proposed in specific locations with clear physical defensible boundaries and accessible to local services and transport links. Release of land for development in these locations will in time enable a five-year supply of housing to be achieved, boosting local housing needs swiftly in line with national policy and guidance.

Settlement Category 2

- 1.13 Ingatestone, as the Borough's largest village, facilities here serve a significant catchment beyond the immediate area. Public transport accessibility is relatively good. The village has a rail station and secondary school. While Ingatestone has relatively good facilities, a modest level of development is envisaged here, due to infrastructure constraints and a lack of suitable sites.
- 1.14 Future development as guided by the Plan will result in changes to the hierarchy, adding West Horndon and Dunton Hills Garden Village to this category. Brownfield residential development at West Horndon is proposed to be of a size to provide for a new village centre along with new retail and job opportunities, and assisting with improvements with the railway station. Development at Dunton Hills Garden Village will create a new self-sustaining village with provision of new schools alongside retail and health facilities. Policies for the delivery of Dunton Hills Garden Village will set the precedent for new accessible connections to be made with West Horndon railway station nearby, providing a new transport interchange, among other aspirations.

Settlement Category 3

- 1.15 Larger villages in the Borough are served by a local shopping parade and a primary school. They generally have limited, often shared, community and health facilities, local jobs and a variable bus service.

- 1.16 Brownfield redevelopment opportunities will be encouraged to meet local needs and policies in this Plan will help to bring forward nearby redevelopment of brownfield sites in the Green Belt where appropriate. Minimal amendments are proposed to the Green Belt boundaries surrounding larger villages in order to retain the character of the Borough in line with the spatial strategy.

Settlement Category 4

- 1.17 Remote smaller villages, some within the Green Belt. These settlements have limited local services and facilities and poor public transport links, reliant on other settlements nearby in many cases. Development in these locations will be encouraged only in brownfield locations, steered by the policies in the Plan.

Our Story

Transport and Travel

- 1.18 Brentwood Borough is well connected to road and rail networks. Major roads such as the M25, A12 and A127 run through the Borough and the M11 and Stansted Airport are within easy reach. Despite good accessibility and location, traffic congestion is one of the main issues affecting quality of life (air quality) and local economic performance.
- 1.19 Brentwood has a very high level of car ownership compared to the national average. Without alternative means of transport the use of cars will continue to dominate as a mobility mode to access nearby services, employment and leisure facilities. Therefore, the delivery and encouragement of sustainable transport alternatives is essential.
- 1.20 There are four rail stations in the Borough (Brentwood, Shenfield, Ingatestone, and West Horndon). The Elizabeth Line will soon serve Brentwood and Shenfield stations, while Shenfield is also a major interchange for the Great Eastern Main to London Liverpool Street and East Anglia. Ingatestone station is also on the Great Eastern Mainline, with a slightly less frequent service. West Horndon station is on the London-Tilbury-Southend Line to London Fenchurch Street. The Elizabeth Line will provide the Borough with an improved train service, including increased capacity, station improvements and new direct links through central London, to Heathrow Airport and Reading.
- 1.21 Bus services generally start and terminate in Brentwood Town Centre with links to other parts of the borough and other places outside the borough. However, bus services in more rural areas are limited, particularly at off-peak times.

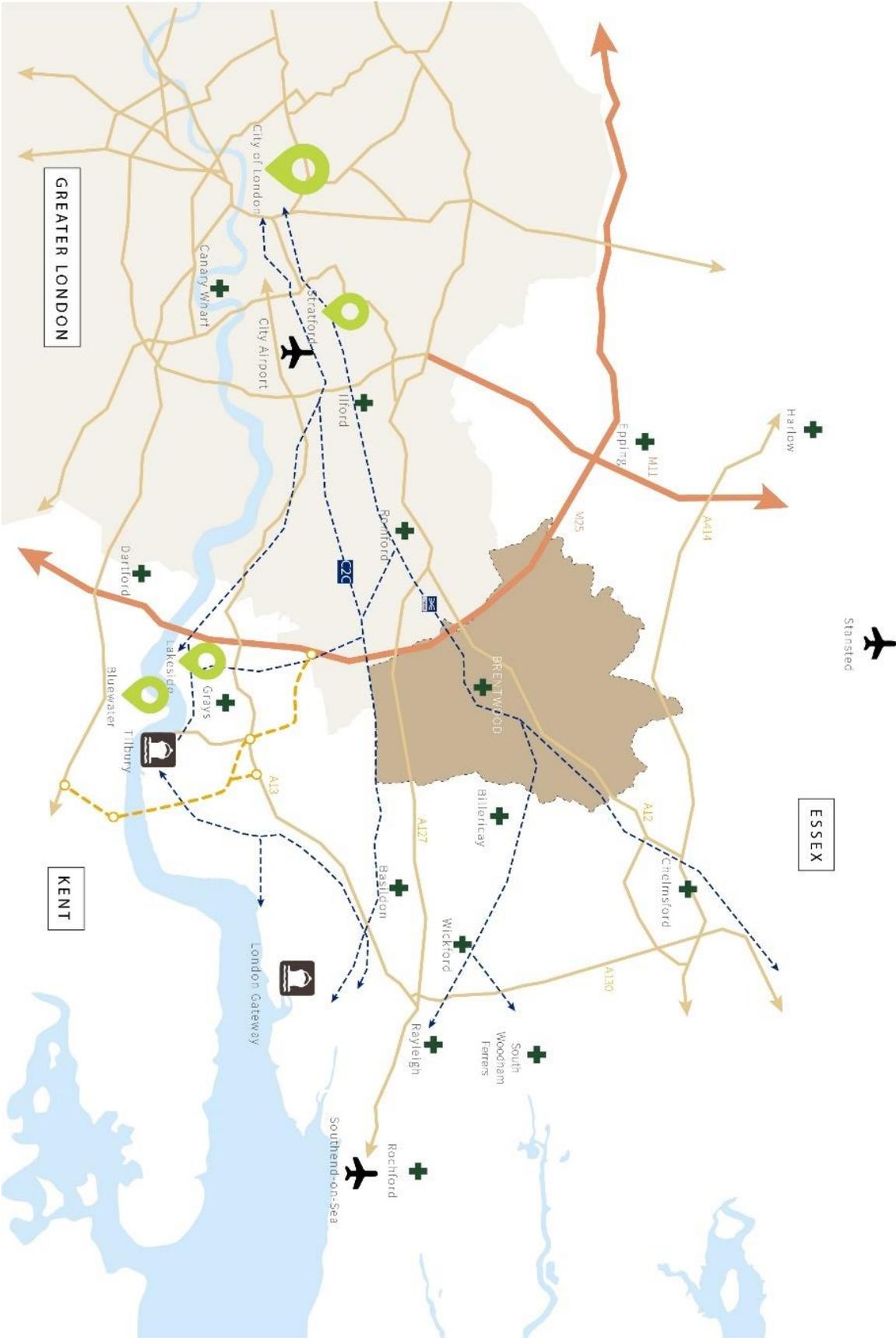


Figure 2.4: Regional Context

- 1.22 The percentage of those who cycle to work is below the national average, but more people walk to work than average. Some cycle routes flow through the borough, but these can sometimes be disconnected. Encouraging sustainable travel patterns is of key importance.

Population and Housing

- 1.23 The population in 2011 was 73,601 (Census), of which approximately 70% live in the Brentwood urban area. The 2014 mid-year population estimate shows that this has increased to 75,600.
- 1.24 The proportion of the population from minority ethnic groups in the borough is well below average for the Eastern of England, and England as a whole. The largest non-white minority ethnic group is made up of people of Asian origin.
- 1.25 Brentwood is one of the most affluent areas in England, within the least deprived 10% of the country.
- 1.26 There are just over 32,000 homes in Brentwood Borough. The main property type is detached and semi-detached houses, which makes up almost 63% total stock compared to the national average of 53%. The main property size is 3-bedrooms (35%), followed by 2-bedrooms (25%) and 4-bedroom homes (23%).
- 1.27 House prices in the borough are very high in comparison with the rest of Essex. This can cause issues preventing people from buying homes with entry level housing often too expensive for many newly forming households and the need for a significant deposit.

Economy and Employment

- 1.28 Brentwood Borough has a successful and buoyant local economy, providing for over 30,000 jobs. Banking and finance is the main business sector followed by distribution/hotels/restaurants and public services. The local business structure is dominated by micro (1-10 employees) and small businesses (11-49 employees), while entrepreneurial activity is high.
- 1.29 Office employment areas are mainly located within the Brentwood town centre, Brentwood station area and Warley Business Park. Major employers include BT, Canon, Countryside Properties, Ford and LV Insurance.
- 1.30 Despite the Borough's rural character employment in agriculture is below the national average. Manufacturing sector is also under represented.
- 1.31 Three quarters of the Borough population is of working age (16-65). This proportion has fallen over time as the population ages. There continues to be a rise in the number of people of working age in the Borough, but a disproportionate rise in the number of older people.
- 1.32 Average weekly wages for those who live here but work elsewhere are higher than for those who work in the Borough. A high proportion of people are employed as managers, senior

officials, and in associated professional and technical occupations, reflecting the number of people commuting to places like central London.

Retail and Shopping

- 1.33 Brentwood Borough offers a wide range of retail and commercial leisure facilities. The main shopping area, Brentwood Town Centre, is centred on the High Street. The Town Centre provides a range of retail, restaurants and cafes, including a quality independent niche shopping offer.
- 1.34 District shopping centres at Shenfield Hutton Road, Ingatestone High Street, Warley Hill (Brentwood Station), and many smaller local parades and individual shops serve residential areas and villages. Each centre plays an important role providing a range of essential local services.

Sport and Leisure

- 1.35 The Borough benefits from extensive open areas for informal recreation. South Weald and Thorndon Country Parks provide 324 hectares of open space along with numerous publicly accessible playing fields, parks, woodlands and amenity greens.
- 1.36 Brentwood Leisure Centre and Shenfield Sports Centre, along with privately run sports and leisure facilities, are the focus for indoor sport and recreation. In addition, excellent sporting facilities are provided at several schools and can be accessed for public use.

Heritage, Natural and Built Environment

- 1.37 The Borough has significant built and natural heritage. It has over 500 Listed Buildings, 13 Conservation Areas, 12 Scheduled Ancient Monuments, 100s of sites of archaeological interest, accessible countryside and parks, varied landscapes and numerous Local Wildlife Sites. Together, these features provide an attractive, sought after location for residents, businesses and visitors.
- 1.38 Development, whether existing or new, invariably places demands on the environment. Among these are unsustainable use of resources (materials, water, energy), waste disposal issues, pollution (of air, water or soil) and loss of or harm to wildlife habitats, historic buildings and landscapes.
- 1.39 The Borough, in common with other places, depends on fossil fuel energy for homes, business and transport, and other finite resources, such as water and land. Fossil fuel energy gives rise to greenhouse gas emissions and climate change and in future may not be readily available in the way it has been in the past. We therefore need alternatives, including renewable energy and local supplies.

- 1.40 Agricultural land grades describe the non-urban areas of the Borough as Good to moderate with a few areas as Very Good within the northern areas of the borough. ³
- 1.41 This Plan places a high priority on the prudent use and good management of resources and effective protection for the environment. Both the form and location of future development and how buildings and land are used are fundamental to safeguarding those qualities which make Brentwood special and ensure these continue to be available for future generations to enjoy.

Arts and Community

- 1.42 Brentwood Borough has a strong and dedicated arts community. There are over 70 arts organisations and societies delivering arts events throughout the year. Participation numbers in the Borough are high with many people regularly taking part in an arts activity in their leisure time.
- 1.43 Local facilities, such as parish, village and neighbourhood halls provide for a range of community and cultural activities, such as play groups, clubs, social activities and public meeting space.
- 1.44 There are nine Parish Councils covering much of the borough's rural areas. However, the majority of the population live in unparished areas, such as the Brentwood urban area.

Health and Wellbeing

- 1.45 Health is defined as a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity. The Council is working with partners to achieve a Healthier Brentwood, so that people can enjoy good health and a sound and vigorous mentality.
- 1.46 The health of Borough residents is generally better than the England average according to Public Health England. Life expectancy is above average. Levels of obesity, diabetes and drug misuse are below the national average.
- 1.47 Brentwood residents have to travel outside the Borough to access main hospital facilities including accident and emergency. However, the Borough benefits from a small NHS community hospital in Brentwood and other private medical facilities. GP surgeries are generally at capacity. NHS England has identified an additional need for GPs subject to the location of future development.
- 1.48 Basildon & Brentwood Clinical Commissioning Group (CCG) are responsible for planning, designing, buying and performance managing NHS services in the area. This includes a wide range of services such as most planned hospital care, rehabilitation care, urgent and

³ Eastern Region Agricultural Land Classification, (2011). Natural England Digital Map ALC008
<http://publications.naturalengland.org.uk/publication/127056?category=5954148537204736>

community care, community health services and mental health and learning disability services.

Education and Schools

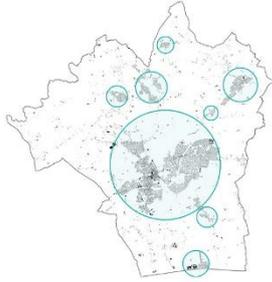
- 1.49 Borough residents have higher than average levels of educational attainment when compared to both the rest of England and East of England. The Borough has higher than average levels of school pupils achieving five good GCSEs and proportion of population with degree level education or equivalent. There is a lower than average proportion of population with no qualifications.
- 1.50 The Borough has many well performing schools and colleges. Essex County Council is the local education authority although many schools are now self-governing, managing their own budgets and employing their own staff. There are also several independent or private schools in the Borough. As academy schools are being encouraged it will be important to work with partners to ensure adequate education provision is available to existing and future local residents.
- 1.51 Primary schools in the Borough are generally at capacity, particularly within the Brentwood urban area, and some have limited physical space to expand. Secondary schools are generally performing with spare capacity.

Utilities, Telecoms and Media

- 1.52 Power, gas and water networks will need to be considered when planning the Borough's future. The Council is working with energy and water providers as part of the plan-making process. In addition, new development will require connections to telecoms and broadband networks.
- 1.53 Broadband internet connection and superfast speeds have become an essential everyday utility for homes and businesses across the country. Coverage in Brentwood varies between urban and rural areas. Essex County Council has committed to a significant broadband infrastructure upgrade with telecoms partners. Broadband speed is an important issue for the UK economy and international competition.

Green Belt

- 1.54 All of the borough's countryside lies within Metropolitan Green Belt of London. That equates to 89% of the Borough, the sixth highest in England by percentage of total area. This helps protect much of the high-quality agricultural land and countryside. However, it also constrains development opportunities, making it difficult to meet development needs in full.



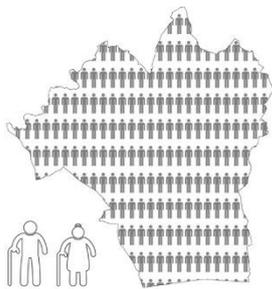
At the heart of the borough is the market town of Brentwood and its wider urban area, surrounded by villages set amongst attractive natural landscape of the Essex countryside



Over 85% of the borough is within London's Metropolitan Green Belt



The borough has a rich tapestry of built and natural assets, including two Country Parks, 13 Conservation Areas covering 600 ha, and over 500 Listed Buildings.



The borough's population is over 73,600 with a significant retired population - an ageing population trend projected to continue



The health of people in Brentwood is generally better than the England average. Deprivation is lower than average, however about 10.8% children live in poverty. Life expectancy for both men and women is higher than the England average. Local health priorities include improving the health of older people, increasing vaccination coverage, and reducing cardiovascular disease by reducing the prevalence of obesity



ONS data 2015/2016 indicates an economic activity rate of 79%, slightly lower than the regional rate of 80.1% but higher than the GB rate of 77.9% Notably the number of self-employed persons was at 12.5% which was significantly above East of England (10.7%) and GB (10.3%) averages. Long-term unemployed rates were less than both regional and national averages

Figure 2.5: Our Story (Part 1 of 2)



The current housing stock is largely made up of detached and semi-detached houses with less small unit accommodation



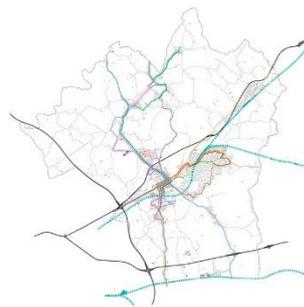
The higher average salaries in London and the south-east have resulted in higher house prices, making affordability a pressing issue in Brentwood



The borough housing need is 380 new homes per year.



ONS Business Register and Employment Survey 2015 indicates that the top three employee jobs by industry in the Brentwood Borough are M: Professional, Scientific and Technical (12.5%); N: Administrative and Support Services (12.5%), and G: Wholesale and Retail Trade (11.1%). The Inter Departmental Business Register (ONS) UK Business Counts (2016) indicates a strong bias towards micro enterprises (90.6%) in the Brentwood Borough which is higher than the East of England figure of 89.7%



Public transport, bus services in particular, are centred on Brentwood Town Centre, making accessibility an issue for villages with infrequent services and lack of evening running



The arrival of Elizabeth Line at Brentwood and Shenfield will improve the existing service and provide new direct links through Central London

Figure 2.5: Our Story (Part 2 of 2)



1. Spatial Strategy - Vision and Strategic Objectives

Vision



Bearing testimony to its market town origins, Brentwood will continue to thrive as a place of commerce and enterprise, strengthened by our proposals to protect existing employment sites, and enhance and develop new sites of economic opportunity, with good connectivity to wider markets.

Brentwood will continue to be a desirable, liveable place to live and visit, providing the 'best of both worlds' where the benefits of urban living can be enjoyed; the bustling high street can continue to thrive and provide opportunities for entertainment and culture; and where the surrounding countryside and numerous Country Parks will continue to provide havens to wildlife as well as beautiful and historic locations to explore.

We are a 'Borough of Villages' and we will continue to maintain our village character, ensuring development respects and enhances these environmental qualities that give Brentwood its distinctive character. We will encourage this through landscape-led development, where new development responds to a 'design and build' with



nature approach, firming embedding high quality green infrastructure through the public realm to create a seamless transition to our surrounding countryside.

Spatial Strategy Driving Factors

- 1.1 Underpinning this vision are three overarching driving factors:
- a. Meeting the Council's priorities for the borough, as set out in the Corporate Plan – 'A Vision for Brentwood';
 - b. Challenges and opportunities that inform how the borough should better manage development and change; and
 - c. Meeting the borough's housing needs.
- 1.2 The overall strategy applies to all development in the Borough. The Plan's vision, strategic objectives and planning policies are all underpinned by the spatial strategy. Spatial Policies within this chapter set out the aims of the strategy. Strategic and Development Management Policies that follow provide the framework for its delivery.

Corporate Plan Priorities

- 1.3 Underpinning this vision is the desire to address priorities set out in the Council's Corporate Plan - 'A Vision for Brentwood', under the themes: Environment and Housing Management; Community and Health; Economic Development; Planning & Licensing; and Transformation. The Local Plan will be one of the ways in which the aims and objectives of the Corporate Plan are achieved.
- 1.4 Supporting the delivery of this vision are a series of strategic objectives and spatial development principles outlining how growth and change is to be managed across the borough through the Plan period. The Spatial Strategy described in this chapter provides the framework for managing change and shaping how the area develops in future.
- 1.5 Principally, the spatial strategy sets out the level and location of development and growth and the key areas of change up to 2033, highlights the borough's built and natural assets to be safeguarded and enhanced.

Spatial Challenges and Opportunities

- 1.6 The spatial strategy is informed the following challenges and opportunities:

- a. Brentwood's principle character and settlement pattern as a 'borough of villages' is retained;
- b. Limited availability of previously developed land (Brownfield), due to Brentwood's largely rural setting within the Green belt, which makes up 89% of the borough area;
- c. Areas of landscape and environmental sensitivity, especially to the south of Brentwood and Shenfield;
- d. Growth options that meet sustainability criteria for accessibility to facilities and travel modes, and ensuring minimal impact on key environmental designations;
- e. Integrated and accessible transit routes that form key connections to London and the wider economic opportunities of South Essex; and
- f. Capacity of existing facilities and the need for new facilities.

Housing Need

- 1.7 Provision of sufficient housing is critical to meet the needs of a growing population and for the effective functioning of local economies.
- 1.8 The Council is committed to plan positively for new homes and to significantly boost the supply of housing to meet the needs of the area, including the need to provide a workforce for forecast jobs.
- 1.9 To meet the requirements of national policy local planning authorities are expected to identify their local housing need and ensure that their Local Plans meet this need in full for market and affordable housing; the spatial strategy sets out the Council's provision to meet this need in full, proposing to make additional land allocations above minimum need to provide additional flexibility in the supply and delivery of sites.

Spatial Strategy Overarching Aims

- 1.10 Driven by Brentwood's Borough of Villages character, our spatial strategy focuses on three main driving forces:

Transit-orientated growth

- 1.11 Brentwood has two key transit corridors running through the borough: the 'Central Brentwood Growth Corridor', with the A12, Great Eastern Main Line to London Liverpool Street Station, and the Elizabeth Line; and the 'Southern Brentwood Growth Corridor', with the A127 and the London, Tilbury and Southend Railway to London Fenchurch Street Station. These form key connectivity axes. Focusing growth along these axes will ensure that future development is sustainable, maximising the benefits of transport infrastructure.

While some investment to improve the transport network will be inevitable, this growth strategy ensures economies of scale are reached, with the critical mass of development making it more viable for such investment to occur.

Developing Naturally and Sustainably

- 1.12 Given Brentwood’s village feel and countryside setting, development must be mindful of the ecological sensitivity and disruption to ecosystem services. For this reason, development should take a ‘design & build with nature’ approach. This will not only plan for resilient and smart infrastructure but also create living environments conducive to human health.

Healthy Communities

- 1.13 Growing from a market town to the diverse economy it is today, future development should capitalise on this evolution ensuring not only a balance of diverse employment opportunities for all, adapting to a changing economic context, but that vibrant hubs of economic and social-cultural activity evolve to provide attractive, connected, walkable, lively and stimulating destinations with necessary facilities, recreation opportunities and services required to sustain healthy communities.
- 1.14 These goals are supported by four strategic objectives and respective policies, as illustrated in Figure 1.1.

Strategic Objectives

- 1.15 This section defines our strategic objectives and how the supporting policies align to help deliver these.
- 1.16 The policies are split into two types;
- i. Spatial policies which provide the overarching strategic guidance to steer development opportunities across the borough. Most of these policies relate to delivering Strategic Objective SO1; and
 - ii. Development Management policies which provide more details on a number of thematic topics.
- 1.17 **SO1: Managing Growth Sustainably**, by directing development to the most sustainable locations, ensuring that the characteristics and patterns of our different settlements are protected and enhanced to provide a strong emphasis on ‘sense of place’ to be enjoyed by people living, working and visiting Brentwood.

- 1.18 **SO2: Deliver a Healthy and Resilient Built Environment**, one where our design creates spaces that encourage social interaction; mitigates, reduces impact or adapts to conditions of a changing climate through smart infrastructure; creates public realm and homes where both the internal and external spaces are conducive to human health.
- 1.19 **SO3: Deliver Sustainable Communities with Diverse Economic & Social-cultural Opportunities for all**, opportunities which flexibly respond to the changing economic climate and employment sector trends making citizens feel economically empowered to enjoy and benefit from the necessary community/social infrastructure that sustains inclusive, informed, vibrant, active and cohesive communities.
- 1.20 **SO4: Deliver Beautiful, Biodiverse, Clean and a Functional Natural Environment**, where our natural heritage is protected and ecosystem services are restored, enhanced and integrated back into the built environment through multi-functional green infrastructure.

Growth Areas

- 1.21 Two key growth areas have been identified, considering our overarching aim to deliver sustainable development in transit corridors, through a process of sequential analysis and review of sites:
- a. In the Central Brentwood Growth Corridor, we will maximise every opportunity to bring forward brownfield land for development, where appropriate, in Brentwood and Shenfield. This will take account of the arrival of the Elizabeth Line, and reflects our commitment to deliver brownfield development, consistent with the NPPF. However, brownfield land is limited, and given the opportunity for new development to invest in infrastructure and facilities, we will grow the wider Brentwood urban areas by providing urban extensions in places where development can be contained and Green Belt harm is minimized. This is in response to local housing needs and limited brownfield capacity, providing exceptional circumstances to consider limited use of Green Belt. In addition, opportunities to grow Ingatestone Village will be taken where contained sites can deliver an urban extension to the south, providing new housing and supporting employment.
 - b. In the South Brentwood Growth Corridor, we will deliver a strategic allocation at Dunton Hills Garden Village, providing a new mixed-use self-sustaining community in the south-east of the Borough. A strategic allocation at M25 junction 29 (Brentwood Enterprise Park) will provide for most of the new employment land needed, bringing forward a modern business park village in the south-west of the Borough with excellent access to the M25. This will also act as a focus for a wider M25/A127 employment cluster considering existing employment uses in the area. Brownfield opportunities will be taken to effectively meet local needs, such as a residential-led mixed-use redevelopment of existing industrial land in West Horndon, creating a new village centre with supporting services and facilities close to the village rail station. Developing here provides an opportunity to address conflicts arising from heavy freight traffic passing through the village. Residential-led development in the area will help strengthen the village centre and improve service provision. Significant improvements to infrastructure and services will be required to support growth within the Corridor.

- c. Development in areas outside these growth areas corridors will be limited to retain local character. Brownfield opportunities will be encouraged where appropriate schemes help meet local needs, and in line with other policies in this Plan help ensure that our villages remain thriving communities. Where appropriate this includes the redevelopment of previously developed sites in Green Belt and infill while improving links to nearby villages.

Key Diagram

- 1.22 The Key Diagram shows the main aspects of the spatial strategy set within the broader local context. This also includes some key aims of other policies in the Plan.

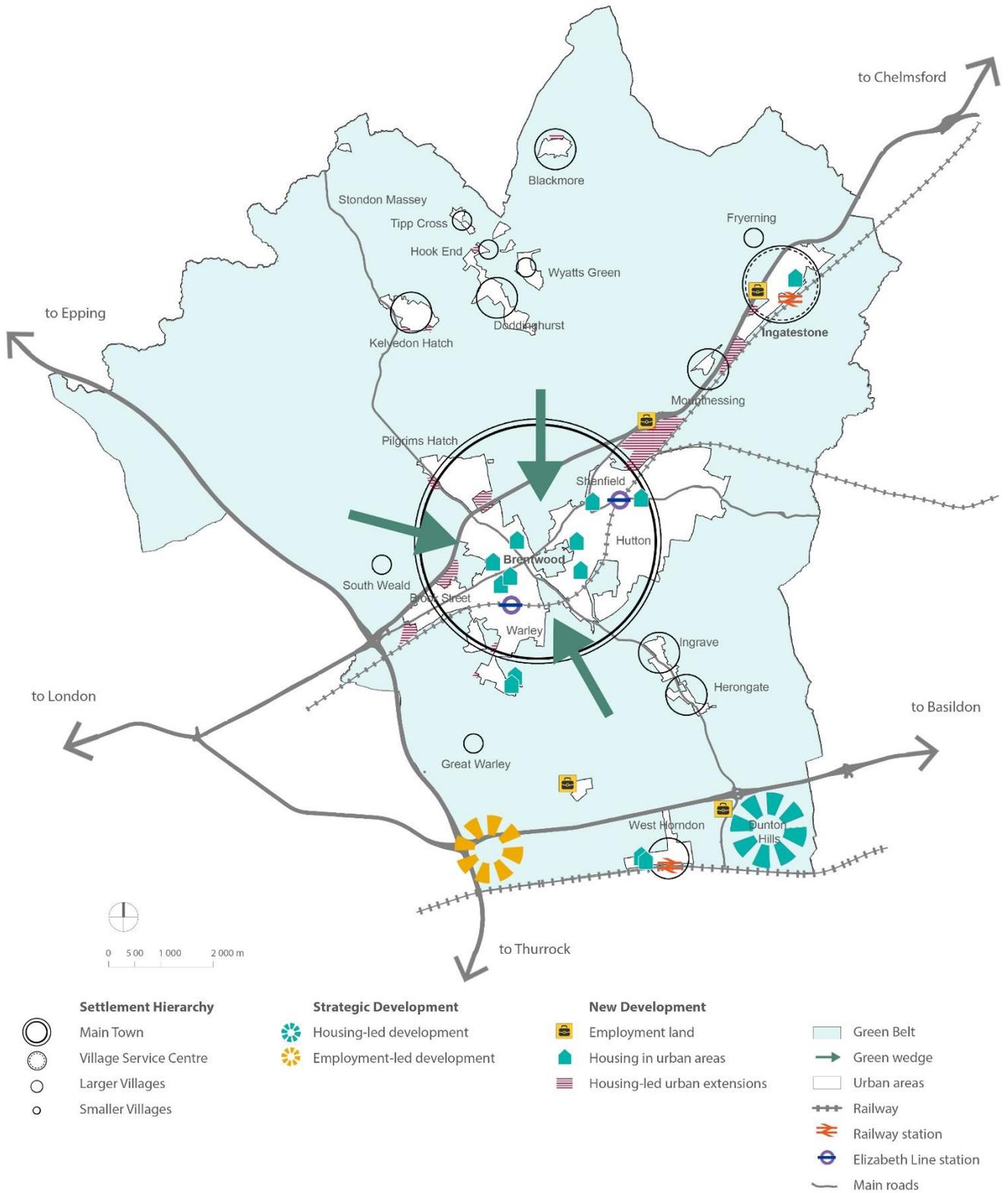


Figure 3.1: Key Diagram

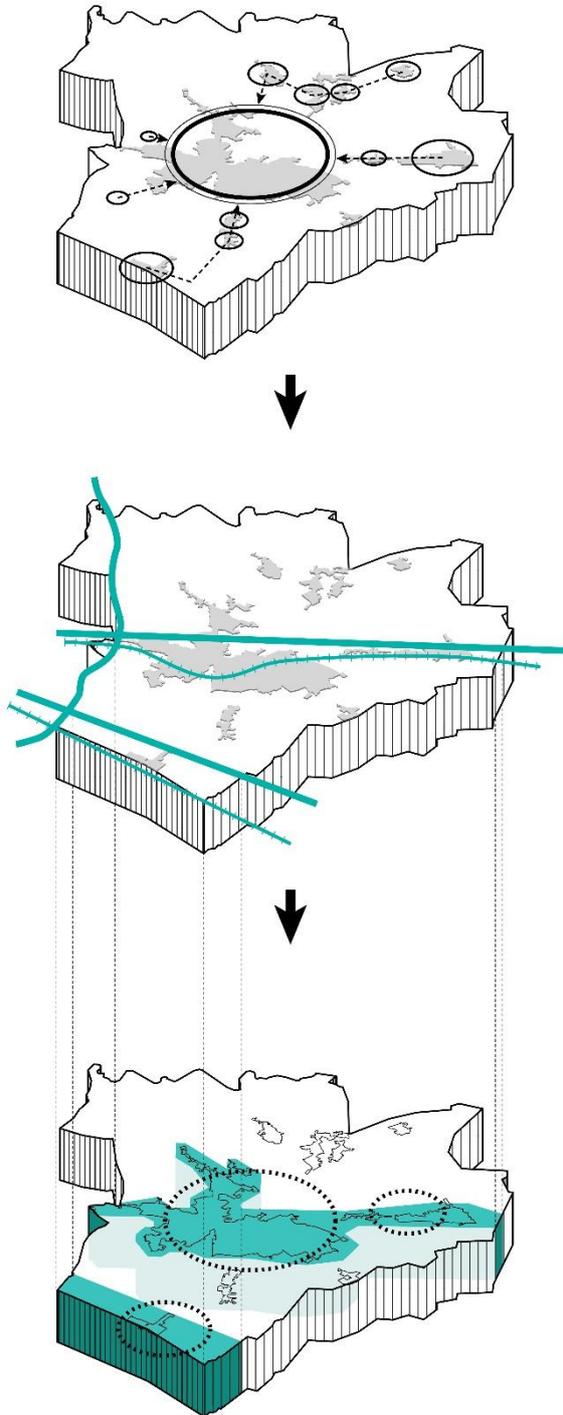


Figure 3.1: Growth Areas

Spatial Development Principles

Using Land Sequentially

- 1.2 The spatial strategy considers each location in terms of a sequential land use test. Development proposals in the borough will follow the following principles:
- a) Urban areas - Prioritise brownfield sites wherever suitable and make efficient use of land;
 - b) Brownfield Green Belt – Use of previously developed land in the Green Belt where in accordance with policies in the Plan;
 - c) Strategic sites – Use opportunities created by larger housing development to deliver new homes and supporting services & infrastructure;
 - d) Urban extensions – Deliver new homes in areas close to existing transport intrastate and local facilities; and
 - e) Windfall – An allowance is made for small scale development that will come forward in future not currently identified, in line with proposed policies to effectively and efficiently use land to meet local needs.

Strategic Sites

- 1.3 Strategic sites have been identified separately to other development allocations in order to deliver the significant amount of growth to meet local needs, specifically new homes and new jobs. These are displayed on the Key Diagram and set out in Chapter 8, along with site specific policies.

Borough Gateways

- 1.4 Development proposals in the vicinity of key gateways into Brentwood Borough, as set out in Figure 3.3, will contribute to enhancing a positive impression of the Borough. Development should help to create a distinctive and clear entry into Brentwood. Development proposals need to reflect an understanding of the Borough's character in line with the Spatial Strategy and enhance the local area.
- 1.5 Gateways include, but are not limited to, transport interchanges such as highway junctions and stations. Development should recognise the importance of creating a positive impression for those passing by the site as well as those entering it. These locations, when in urban areas, offer an opportunity for higher densities and employment locations. In addition, public art and public realm improvements can be considered.



Figure 3.3: Key Gateways



1. Managing Growth

Managing Sustainable Growth

- 1.1 The following cross-cutting policies implement the Council's strategy for sustainable growth. They set out how sustainable development is to be achieved, where development is best placed to ensure accessible and sustainable growth, and what development proposals must respond to.
- 1.2 The section contains the following policies:
 - i. Policy SP01: Sustainable Development
 - ii. Policy SP02: Growth Areas
 - iii. Policy SP03: Health Impact Assessments
 - iv. Policy SP04: Developer Contributions
 - v. Policy SP05: Construction Management
 - vi. Policy SP06: Effective Delivery of Development
- 1.3 These policies are supported by the Site Allocation Policies (Chapter 8), which give more detail about each of the growth areas. The site allocation policies detail the amount and type of development expected to be provided, and the specific supporting infrastructure and other requirements needed for each of the sites.

POLICY SP01: SUSTAINABLE DEVELOPMENT

When considering development proposals, the Council will take a positive approach that reflects the presumption in favour of sustainable development contained in the National Planning Policy Framework.

The Council will always work proactively with applicants to jointly find solutions which mean that proposals for sustainable development can be approved wherever possible, and to secure development that improves the economic, social and environmental conditions in the area.

Planning applications that accord with policies in this Local Plan (and, where relevant, with policies in relevant Development Plan Documents, and Neighbourhood Plans) will be approved without delay, unless material considerations indicate otherwise.

Development will be supported and is considered to contribute towards delivering the Strategic Objectives where it:

- a. preserves and enhances the character and settlement setting of our borough of villages;
- b. has no unacceptable effect on visual amenity, the character appearance of the surrounding area;
- c. provides satisfactory means of access to the site for vehicles, cyclists and pedestrians and parking and servicing arrangements;
- d. ensures the transport network can satisfactorily accommodate the travel demand generated and traffic generation would not give rise to adverse highway conditions or highway safety concerns or unacceptable loss of amenity by reason of number or size of vehicles;
- e. has no unacceptable effect on health, the environment or amenity due to the release of pollutants to land, water or air (light, noise pollution, vibration, odour, smoke, ash, dust and grit);
- f. causes no unacceptable effects on adjoining sites, property or their occupiers through excessive noise, activity or vehicle movements; overlooking or visual intrusion; harm to or loss of outlook, privacy or daylight/sunlight enjoyed by occupiers of nearby properties;
- g. takes full account of opportunities to incorporate biodiversity in developments;
- h. delivers good design;

- i. provides greater weight to conservation and enhancement where development needs to consider the significance of impact on a designated heritage asset;
- j. results in no net loss of residential units; and
- k. mitigates impact on local services and community infrastructure.

- 1.4 The NPPF (2018) is clear that the purpose of the planning system is act positively to contribute to the achievement of sustainable development. We have set out four overarching strategic objectives that define how sustainable growth is to be achieved, and how development should take positive steps to secure gains in economic, social and environmental objectives. Figure 1.1 illustrates how Brentwood's Local Plan is positively framed and aligned to achieve sustainable development.
- 1.5 For the purposes of this policy, the Council will consider the application in its entirety and how it relates to its immediate context. Impacts will be considered unacceptable when they do not meet the standards, principles and requirements provided in the Local Plan policies or where they result in negative impacts that cannot be adequately mitigated.
- 1.6 The Council seeks to promote and secure sustainable development. This means directing development to locations which are supported, or capable of being supported, by effective transport provision, leisure, community and other essential services, while minimising harm to the environment and protecting the Green Belt.
- 1.7 Development should not harm the amenities of occupiers in nearby properties. Therefore, protecting the privacy and amenity space of nearby properties by avoiding excessive overlooking or loss of light resulting from new development are key considerations. New development should be sympathetic to the character and form of neighbouring properties and surroundings ensuring they are not overbearing and do not look out of place. New development is likely to result in some impact or change, but this should be limited wherever possible and not be unacceptable.
- 1.8 Considering the imperative to deliver sustainable development, the Council expects development to adopt environmental best practice and pollution prevention measures in relation to groundwater, drainage, lighting, noise, impacts on health, the environment and amenity to avoid, address or mitigate adverse impacts that might otherwise arise. It will be important that all development proposals consider the environmental impact of proposed activities at an early stage in the planning process and incorporate measures needed to address this.
- 1.9 For a scheme to be acceptable, development will be required to make satisfactory arrangements for vehicular, cycle and pedestrian access into the site and for parking and servicing within the site. Any traffic generated by the development should be capable of being satisfactorily accommodated by the transport network and not give rise to

unacceptable highway conditions, safety and amenity concerns because of the number or size of vehicles.

- 1.10 Changes of use from residential, especially within or adjoining commercial centres, can involve the loss of smaller accommodation, for example flats above shops and small terraced units, which make a valuable contribution to the housing stock offering housing choice and affordability and responding to demographic change, notably a fall in the average household size. A residential presence in commercial areas maintains activity after shops and offices close, enhances community safety and retains the mixed-use feel of shopping areas. Such locations are sustainable being near services, facilities within walking distance and public transport. Making the best use of existing housing helps resist pressure to release additional land from the Green Belt. The Council therefore aims to retain existing dwellings and resist their loss. Similarly, the Council will seek to retain community facilities and services where needed, or secure their replacement, to at least an equivalent standard and convenience.

Local Housing Need

- 1.11 The Government introduced a standardised methodology for calculating local housing need alongside the NPPF in July 2018. This calculates local housing need and is based on household projections published by the Office for National Statistics, applying an uplift for areas considered to need more affordable housing on the basis of high house prices.
- 1.12 In preparing the Local Plan the Council has continued to update its Strategic Housing Market Assessment SHMA (Part 1) in identify local housing need from which strategic policies have been informed. The Standard Method number for Brentwood, as calculated in the SHMA following current national guidance (2018), is 350 new homes per year using the annual average growth over years 2019-2029. This then forms the Council's housing requirement and starting point in establishing the amount of housing to be planned for.
- 1.13 The Council is committed to plan positively for new homes and to help significantly boost the supply of housing to meet the needs of the area. Taking into account the governments ambitions for housing growth, it is appropriate to consider the government's response document to the revised NPPF, and its intention to adjust the standardised methodology to ensure that the starting point in the plan-making process is consistent with ensuring that 300,000 homes are built per year by the mid-2020s
- 1.14 Mindful of the above and drawing on the extensive work the Council has undertaken in establishing the wider context of housing need as identified in the SHMA; the Council is committed to plan on the basis of 380 new homes per year over the Plan period. This figure is advocated in the SHMA and is above the Standard Method safeguarding against the risk of potential future uplift.
- 1.15 To provide flexibility in the supply of housing sites and help boost delivery of sites, the Council proposes to allocate development sites in the Local Plan to provide a further 20% supply buffer above established housing need of 380 dwellings per year. The buffer allows for an additional housing supply in the borough to be maintained throughout the Local Plan period and is an approach supported in national planning guidance.

- 1.16 When taking the supply buffer into account, provision is made for a total of 7,752 new homes in the period 2016-2033; an annualised housing delivery target of 456 new homes per year. This provision is distributed as per Figure 4.1.
- 1.17 Based on past delivery records, windfall sites will make a contribution toward provision. These are sites expected to come forward throughout the Plan period and as such are taken into account in determining the residual housing requirement. The Council has assessed the contribution of windfall sites on past housing supply in the borough. The evidence shows that at least 41 new homes have been built on windfall sites each year. For future housing supply a windfall allowance of 41 new homes a year has been applied from 1 April 2023 to 31 March 2033 (final 10 years of the Plan period). This is considered robust and represents a modest contribution to overall supply.
- 1.18 For the purposes of calculating the Council's rolling five-year housing land supply it has not been possible to identify a five-year housing land supply which delivers the current annualised requirement¹.
- 1.19 The high proportion of designated Green Belt within the Borough (89% of the total Brentwood Borough area) makes it extremely difficult to achieve a five-year supply, due to the fact sites on the edge of settlements, currently within the Green Belt are not available for development purposes until the adoption of the Plan.
- 1.20 As a consequence, a greater proportion of the required homes are forecast to be delivered in the period beyond 2023, when the sites on the edge of settlements (previously within the Green Belt) begin to benefit from the detailed planning consent, enabling infrastructure and construction commences on these sites.
- 1.21 Therefore, this plan sets out a pragmatic response to the matter, by proposing an initial housing delivery target of 310 homes per year to 2023, followed by a higher target of 584 homes per year thereafter for the remainder of the plan period; this combined provides for 7,752 homes in accordance with Policy SP02.

POLICY SP02: MANAGING GROWTH

Provision is made for 7,752 new residential dwellings (net) to be built in the Borough over the Plan period 2016-2033 at an annual average rate of 310 dwellings per year to 2022/23, followed by 584 dwellings per year from 2023/24-2033.

New development within the borough will be directed towards:

- a. The site allocations set out in Chapter 8; and

¹ See Five Year Housing Land Supply Statement as at 31 March 2018

- b. Highly accessible locations along transit/growth corridors.

Sequential Land Use

- 1.1 The spatial strategy informs the allocation of sites for development. This considers each location in terms of a sequential land use test, in line with guidance and best practice, and should be a key consideration in determining applications. It prioritises growth based on brownfield land and land in urban areas first; and only then brownfield land in Green Belt areas where deemed appropriate according to policies in the Plan.
- 1.22 Figure 4.1 sets out how different types of land use will contribute towards overall housing needs to be met according to Policy SP02.



Figure 4.1: Demonstrating Housing Provision

Health Impacts

- 1.23 Local planning policy has a crucial role to play in ensuring that the opportunities exist for people to be able to make healthier life choices and addressing health inequalities. The policies and supporting evidence base for the Brentwood Local Development Plan aim to create and support strong vibrant, sustainable and healthy communities by promoting and facilitating healthy living and creating environments, which offer opportunities for healthy

choices. The health and well-being of communities must begin with the planning process and it is accepted that if a community has access to the services and facilities set out above, it will be happier, healthier and more resilient.

POLICY SP03: HEALTH IMPACT ASSESSMENTS (HIAs)

Brentwood Borough Council is committed to ensuring all new developments promote healthier and inclusive environments. The design of the built environments and new developments play a key role in ensuring that health inequalities are not exacerbated and make it harder for people to live healthier lives. The evidence suggests that the following issues impact on the physical, social, and mental health of communities:

- a. The location, density and mix of land use;
- b. Street layout and connectivity;
- c. Access to public services, employment, local fresh food, education, leisure and recreation activities, and other community services;
- d. Safety and security;
- e. Open and green space;
- f. Affordable and energy efficient housing;
- g. Air quality and noise;
- h. Extreme weather events and climate change;
- i. Community interaction; and
- j. Transport.

The majority of proposals will be required to assess their impacts on health and well-being, upon the capacity of existing health and social care services and facilities, the environmental impacts and the promotion of health improvement activities. For Use Class C2 developments comprising residential care homes and nursing homes, and Use Class C3 residential developments of any size are encouraged to illustrate how health and wellbeing have been considered within the development. Planning proposals should adhere to the requirements set out in the

Essex Planning Officer's Association (EPOA) Health Impact Assessment (HIA) Guidance notes (2008)².

Those developments that are 50 or more units (or less than 50 units at the discretion of the planning authority where the number of units could propose a significant impact on the community and infrastructure) and non-residential developments in excess of 1,000m², are required to submit a Health and Wellbeing Impact Assessment as required by the EPOA HIA Guidance Note, which will measure the impact on health and wellbeing, the demand on the capacity of health and social care services and facilities arising from the development. Where significant impacts are identified, planning permission will be refused unless infrastructure provision and/or funding to reasonably meet the health and wellbeing and service requirements of the development are provided and/or secured by planning obligations, or by CIL, as appropriate.

Brentwood Borough Council will require a Health and Wellbeing Impact Assessment to be prepared and carried out in accordance with the advice and best practice for such assessments as published locally through the Essex Planning Officers Association (EPOA). Developers will be expected to contact the Council at pre-application stage to complete the Healthy Communities Checklist (as part of the validations checklist), to enable joint discussions to take place on the likely health and wellbeing impacts and environmental impacts of proposals. This is an opportunity to strengthen the process of spatial planning through partnership working, community engagement, evidence sharing and coordination and the impacts on health and wellbeing and the environment.

- 1.24 Chapter 8 of the National Planning Policy Framework (2018) acknowledges that the planning system can play an important role in facilitating social interaction and creating healthy, inclusive communities. Local Planning Authorities are expected to use their planning powers to ensure that health and wellbeing inequalities are reduced and mitigated where possible, to ensure positive social, economic, and environmental benefits are achieved.
- 1.25 Health and wellbeing inequalities have been recognised as having a significant impact on communities. The Government has clearly signalled its commitment to promoting Health Impact Assessment since 2003 with the publication on Tackling Health Inequalities by the London Department of Health, followed by Choosing Health White Paper (2004), the Department of Health Guidance on planning for NHS staff, and the inclusion of Health and Wellbeing requirements as set out in the NPPF (2012 and 2018).

² Essex Planning Officer's Association (EPOA) Health Impact Assessment (HIA) Guidance notes (2008) .
<https://www.uttlesford.gov.uk/media/2222/Guidance-note-Health-Impact-Assessments-2008-pdf/hiaguidance.pdf>

1.26 In response to Governments priorities placed on health and wellbeing the Essex Planning Officers Association (EPOA) published a Guidance Note on Health Impact Assessments (2008) which set out targets for all local authorities to ensure that their Local Development Frameworks (or equivalent development plan documents) contain a policy requiring HIA for relevant planning applications. An HIA check list was later publish 2014³ by the London Healthy Urban Development Unit and supported by the EPOA. The EPOA Guidance Note on HIA is currently being update and once published, developers should refer to the most up to date guidance to ensure that health and wellbeing impacts have been fully considered as part of the proposal.

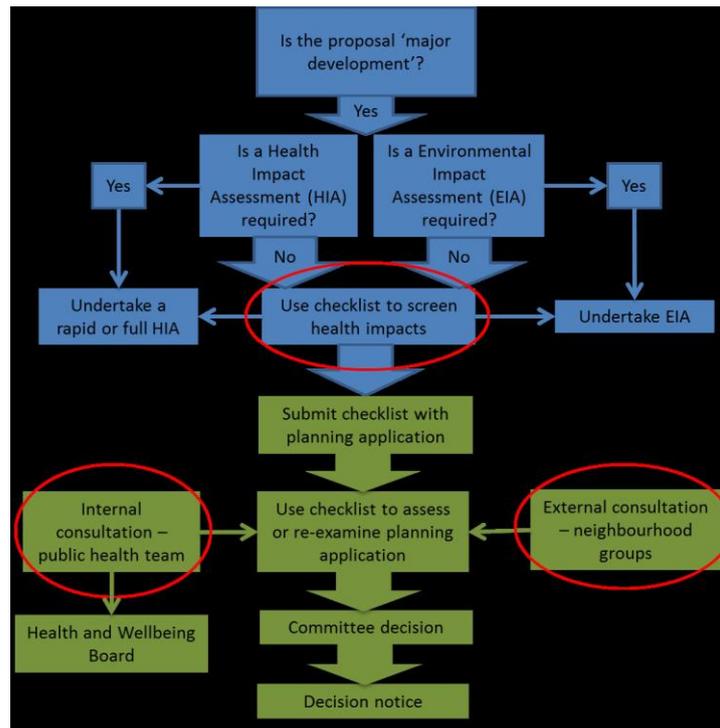


Figure 1: How to assess if a planning application requires to undertake an HIA and the steps involved.

POLICY SP04: DEVELOPER CONTRIBUTIONS

Community Infrastructure Levy (CIL) payment is required in line with any charging schedules which are in operations for the borough, in order to meet all on and off-site infrastructure requirements necessary to support development proposals and mitigate their impacts

Section 106 agreements are required to provide affordable housing and make provision to mitigate the impacts of the development where necessary or

³ Healthy Urban Planning Checklist, March 2014: <http://www.healthyurbandevelopment.nhs.uk/wp-content/uploads/2014/04/Healthy-Urban-Planning-Checklist-March-2014.pdf>

appropriate, having regard to the relevant Supplementary Planning Documents or guidance; and

A financial viability assessment should be submitted as part of the planning application, where required, which may be subject to an intendent scrutiny by appointed experts, at the applicant's cost, where they do not meet the planning policy requirements or do not propose to deliver the required Section 106 planning obligations.

Permission will be granted where proposals clearly demonstrate that they will be supported by the necessary infrastructure, services and facilities that are identified as necessary to meet the needs of existing and new communities and fully mitigate the impacts of development. All development proposals will be assessed against the latest ECC Developers Guide to Infrastructure Contributions; the Council's Infrastructure Delivery Plan; and the Council Charging.

- 1.27 The spatial vision and strategic objectives emphasise the importance of managing growth and shaping change. This puts planning for appropriate and adequate infrastructure at the heart of sustainable development, ensuring that the policies of the Local Plan are delivered in a manner that achieves sustainable development, the Council seek contributions from developers to fund improvements to existing infrastructure and the environment, or where necessary new infrastructure. Contributions will be made through the Community Infrastructure Levy, which applies a standard charge to developers to fund supporting infrastructure such as transport, schools, community facilities and health facilities, and or section 106 agreements which address the provision of affordable housing and more site specific infrastructure requirements.
- 1.28 The council wish to work collaboratively with our partners and developers to deliver the infrastructure necessary to support the level of growth required to meet objectively assessed housing need.
- 1.29 The Infrastructure Delivery Plan (IDP) identifies the type of infrastructure required to support the anticipated growth in the borough and includes a summary of the current identified infrastructure projects.
- 1.30 The IDP will be required regularly and where necessary updated in consultation with both the internal and external stakeholders such as other service areas and infrastructure providers.
- 1.31 This policy must be read in conjunction with Policy NE02: Recreational Disturbance avoidance Mitigation Strategy (RAMS).

POLICY SP05: CONSTRUCTION MANAGEMENT

All major development should sign up to the Considerate Constructors Scheme, or equivalent. During construction, major development is required to:

- a. Comply with the non-road mobile machinery low emissions zone requirements;
- b. Minimise levels of noise, vibration, artificial light, odour, air quality, fumes, or dust pollution;
- c. Consider the routing, timing and frequency of heavy goods vehicle movements to reduce their impact on vulnerable road users, local amenity and congestion;
- d. Use, where available, construction and or freight consolidation centres; and
- e. Consider the impact of construction on water supply, floor risk and drainage and implement suitable mitigation measures where required.

Major development must consider the cumulative impact of other major development occurring in the vicinity on levels of noise, vibration, artificial light, odour, air quality, fumes or dust pollution and plan timings of works, delivery timings and routes and location of equipment accordingly to reduce this cumulative impact.

Development is required to employ the highest standards of sustainable construction, including:

- f. Sustainable construction methods, such as use of sustainably sourced materials recycled materials;
- g. The reuse of demolished material from development site, where practical in order to minimise the transportation of waste and reduce carbon emissions; and
- h. The sustainable disposal of materials.

1.32 This policy recognises the high levels of growth that are taking place within or near to inhabited places. It therefore seeks to ensure development minimises its impact on the local environment and existing community's health and wellbeing.

1.33 Developers will be expected to sign up to the Considerate Constructors Scheme to better manage and mitigate the cumulative impacts arising from construction of the borough's population and environment. This is a national initiative which seeks to promote safe and

considerate building practices and engineering works and improve standards of neighbourliness. Sites that are registered under the scheme are independently assessed and monitored against the code of considerate practiced, designed to encourage higher standards of conduct. An equivalent scheme membership may also be considered as meeting the requirements of this policy.

- 1.34 Cumulative impacts arising from other major developments within one-kilometre radius of the proposal site should be assessed and mitigation actions identified. This should be evidenced throughout the construction logistics management plan. This policy must be read in conjunction with Policy NE02: Recreational disturbance Avoidance Mitigation Strategy (RAMS).
- 1.35 The Council seek to reduce development waste from a development site and ensure sustainable construction methods can make a significant difference to the energy requirements and associated carbon emissions of the scheme. Applications should evidence how the development will seek to meet this requirement in the design and access statement and or the sustainability statement, as part of the planning application.
- 1.36 The borough's growth strategy is established on the principles of ensuring the best use of land, achieving sustainable development, and safeguarding the longer-term integrity of the Green Belt and other greenfield land, recycling and reusing previously developed land. For this reason, development is prioritised in suitable and accessible locations within existing settlements, conversion and reuse of previously developed (brownfield) land and buildings.
- 1.37 The level of development planned for the Borough aims to strike a balance between responding to the need for development and acknowledging constraints which determine how much development the Borough can sustainably accommodate. There are areas such as the Green Belt, land valuable for food production, land at risk to flooding, land of high landscape value, and nature conservation areas which are to be protected from development.
- 1.38 Phasing refers to the timing of delivery of development in relation to other activity, such as, land assembly or provision of infrastructure. Development may require phasing, both to ensure that new occupants have access to services they need and to minimise disruption caused by development to existing communities or the services they depend on. Phasing helps ensure the timely delivery of development over the plan period to ensure that there is adequate supply of housing to meet a five-year supply. Therefore, in this regard, an important role of this Plan is to indicate where and when sites are expected to come forward.

POLICY SP06: EFFECTIVE DELIVERY OF DEVELOPMENT

Development proposals for large complex allocation sites will be expected to be developed in partnership with the Council, infrastructure providers and other relevant organisations, through a collaborative masterplanning approach.

Successful development of the sites will require supporting documents such as a strategic masterplan, area specific masterplan, complementary design guide/code, to help guide the necessary coherence across the entire development site, irrespective of who delivers the different locations or components of the scheme.

The Council may, at its discretion, appoint an independent Quality Design Review Panel to review the detailed design proposals, to provide additional rigour to the design-thinking process, thereby ensuring the longer-term sustainable success of the development.

Development proposals should submit a supporting statement setting out the sustainable long-term governance and stewardship arrangements for community assets; the statement should be proportionate with the scale of the scheme and quantum of infrastructure being delivered.

- 1.39 Area specific plans and masterplans are key to informing how the redevelopment of strategic sites and areas of change will come forward. They are also key to improving the understanding of how site constraints and opportunities have been addressed and maximised, to realise the spatial strategy. This ensures that priorities are aligned and scheme acceptance is secured
- 1.40 This policy ensures that a collaborative and participatory approach is taken when working up scheme proposals with all relevant stakeholders, to give plans a better chance of success. This will include key partnerships with health and infrastructure providers, and local communities, including Parish Councils and Neighbourhood Forums producing Neighbourhood Plans.
- 1.41 The Council may wish to develop wider strategic masterplans to inform the different site allocations coming forward, in collaboration with statutory partners, infrastructure providers and other relevant organisations.
- 1.42 The Council will maintain an up to date Statement of Community Involvement, published on line⁴, which will state how we intend to involve local community groups, residents, businesses and other stakeholders in the preparation and implementation of Supplementary Planning Documents and guidance in the consideration of planning applications.

⁴ Brentwood Statement of Community Involvement (2012) <http://www.brentwood.gov.uk/index.php?cid=2380>

Monitoring and Delivery

Review Requirements

- 1.43 The NPPF (2018) states that the preparation and review of all policies should be underpinned by relevant and up-to-date evidence and that this evidence is adequate and proportionate, taking into account relevant market signals. The Local Plan has been created having considered evidence and representations received from consultations on previous drafts. The NPPF (paragraph 33) also states that reviews should be completed no later than five years from the adoption date of the plan, especially to take into account changing circumstances affecting the area, or any relevant changes in national policy.
- 1.44 The Council recognise that continuous 'horizon scanning' is necessary to maintain a long-term view of the relevance of the policies, in light of the fast-paced technological advances of the built environment sectors. This includes joint working on initiatives such as the South Essex Joint Strategic Plan. This is in addition to the day-to-day monitoring of the strategic objectives and policy implementation to reflect on how effective the Plan is in delivering and maintaining a sufficient supply of housing to meet need.
- 1.45 Therefore, we will monitor the implementation of policies and proposals of the Local Plan using key indicators and targets set out in the Monitoring Framework (Appendix 3). An earlier than five-year review may be required to address the implications of the national standardised approach to calculating local housing need, when adopted.

Managing Development

- 1.46 To ensure the Local Plan remains effective in delivering the strategic objectives, we will adopt the following implementation approaches/principles:
- a. To address site specific issues, there may be a requirement to impose conditions or planning obligations to mitigate any negative impacts arising from development proposals.
 - b. The Plan will be the main vehicle through which planning applications are determined. In some circumstances, policies will be supplemented with supporting evidence and/or additional development management documents in the form of Supplementary Planning Documents or other types of guidance. Where considered necessary, we will also use special legislative tools such as Article 4 directions.
 - c. The Council will continue to develop the use of masterplans to guide the design and layout of new development in collaboration with infrastructure providers and other relevant organisations.
 - d. The broader process for determining planning applications encompasses pre-application discussions and Planning Performance Agreements.

- e. In some circumstances, particularly in the case of major developments, strategic allocations or with complicated sites, we will also consider the use of independent review panels.

Pre-Application Engagement

- 1.47 We encourage the pre-application engagement process with applicants. This can help achieve effective decisions, good quality and acceptable development. While the outcome of an application cannot be guaranteed, a planning application is more likely to succeed if it is well prepared, accords with the Local Plan and addresses the relevant challenges raised at the pre-application stage.
- 1.48 When preparing planning applications, applicants and developers should have regard to the requirements set out in the latest validation checklist.
- 1.49 Where considered necessary, and as a last resort, legal powers through the Planning and Compulsory Purchase Act 2004 (as amended) may be used to enable development in line with the growth strategy.



1. Resilient Built Environment

- 1.1 It is increasingly recognised that the design and layout of our built environment, can impact our well-being and the opportunities to live a healthy lifestyle.
- 1.2 The role of planning policies and decisions in enabling and supporting healthy lifestyles is recognised in the NPPF (2018, paragraph 91).
- 1.3 The NPPF (2018, S.14) emphasises the need to take a proactive approach to mitigating and adapting to climate change. Our built environment is often put under strain during extreme weather conditions. The policies in this section seek to avoid increased vulnerability to extreme weather conditions; to ensure infrastructure is built to be resilient under conditions of a changing climate; and to ensure development is planned in ways that reduce carbon emissions, providing a positive strategy for energy use. The Council seeks to improve our built environment so that it can support the future resilience of communities and infrastructure, as well as create strong, vibrant and healthy communities.
- 1.4 Infrastructure plays a critical role in enabling communities and businesses to survive and flourish in the face of climate and other threats. The concept of resilience in a planning context can be understood as the ability to reduce exposure to, prepare for, cope with, recover better from, adapt and transform as needed, to the direct and indirect consequences of climate change, where these consequences can be both short-term shocks and longer-term stresses¹.

¹ Joseph Rowntree Foundation (2015) Community Resilience to climate change: an evidence review

- 1.5 Resilience-building strategies can be considered to be 'reactive' or 'proactive'². A reactive approach focuses on mitigating consequences, maintaining stability and the status quo, whereas a proactive approach focuses on change and adaptation and looks more towards addressing long term stresses. Both approaches are incorporated in this Plan.
- 1.6 A holistic approach to sustainable development that reduces the environmental impact of development whilst healthy planning should be embedded within all development proposals from the outset.
- 1.7 The policies in this section aim to increase the efficiency and resilience of our infrastructure, making our borough smarter and better prepared for climate impacts and other threats.

Future Proofing

POLICY BE01: FUTURE PROOFING

In planning and design for resilience, all applications must take into account the following principles of future proofing:

- a. well-being, safety and security for residents and/or users;
- b. adaptable and flexible spatial planning and design;
- c. life cycle duration of infrastructure and buildings, including appropriate maintenance plan for the life of the development;
- d. potential hazards including fire, pest, flood, and climate change long term stresses in determining design, locations and installations of protection facilities, systems and buildings for the life of the development;
- e. existing and potential source of pollution, such noise and air, and according mitigation measures;
- f. increased quality of materials and installation;
- g. multi-functional Green and Blue Infrastructure in line with the principles of Sustainable Urban Drainage (SUDs) and natural flood management as part of the wider Green and Blue Infrastructure network to deliver multiple benefits;
- h. provision of class leading digital connectivity infrastructure and other future essential technology; and

² Dovers and Handmer, (1992) developed further in the context of flooding by Twigger-Ross et al., (2014)

- i. delivery phasing that takes into account demand and supply if and where appropriate.

Time horizons for proposed future-proof interventions can vary depending on the size, location and purpose of development but long term time horizons based on objective and realistic assessment should be made clear in the proposal.

- 1.8 The term 'future-proofing' refers to the process of anticipating the future and developing methods of minimising the effects of shocks and stresses of future events. The concept is a critical component of resilience building strategy.
- 1.9 This policy requires applicants to consider:
 - i. Reactive measures to minimise the potential of and prepare for possible short-term shocks (such as pests, diseases, fire, flood, heatwave, etc.); and
 - ii. Proactive strategies to adapt to long-term changes caused by climate change and technology development, through sustainable design, energy conservation, adaptable and flexible engineering, and other effective means.
- 1.10 Time horizons for future-proof interventions often depend on several variables but having a long-term vision and strategies, at least for the life of the development, can help plan ahead and defer the obsolescence and consequent need for demolition and replacement of structures, avoiding cost and service disruption.
- 1.11 Today, our social interactions, ways of doing business, travelling and other activities are supported and governed by digital connectivity. Not only is digital infrastructure an essential of today's economy but it is also critical in events of disturbance and is increasingly used to assist people with a range of health conditions. Space for digital infrastructure should be designed and installed as an integral part of development to minimise cost and disruption involved in the installing and retrofitting in line with Policy XX Connecting New Development to Digital Infrastructure.
- 1.12 Economic and business cycles, retail trends, among other market events inevitably accounts for degree of uncertainty in the delivery and phasing of development, especially larger sites. This in turn, has consequent impacts on the built environment and the local housing market. Therefore, applicants should consider their impacts on delivery as far as it is appropriate and realistic to do so and have appropriate measures and plans in place.

Responding to climate change

- 1.13 Climate change and its consequences including flooding, heatwave and drought are significant environmental challenges and mitigating them is key to sustainability. Globally, the average concentration of CO₂ now exceeds 400 parts per million, the highest in recorded

history³. Sixteen of the seventeen warmest years on record have occurred since 2001⁴. The Environment Agency predicts an average sea level rise around the UK of at least a metre by 2115 from a 1990 baseline⁵.

- 1.14 The Climate Change Act (2008) legislates for a 80% reduction in greenhouse gas emissions against 1990 levels by 2050. This requires everyone to be engaged, from national and local government to businesses, households and communities. In 2007, Brentwood Borough Council signed the Nottingham Declaration on Climate Change, a commitment to reduce its own emissions and encourage all sectors of the local community to do so.
- 1.15 Building the resilience of wildlife, habitats and ecosystems to climate change, to put our natural environment in the strongest possible position to meet the challenges and changes ahead is one of the objectives of the National Adaptation Programme 2018⁶ based on key recommendations from the Climate Change Risk Assessment 2017⁷. This is addressed further by a number of policies, such as Policy BE36: Green and Blue Infrastructure; Policy NE01 Protecting and Enhancing the Natural Environment; NE02 Recreational Disturbance Avoidance and Mitigation Strategy (RAMS); Policy NE03: Trees, Woodlands, Hedgerows; NE06 Air Quality; and NE07 Flood Risk.
- 1.16 The policies in this chapter require decision takers and developers to give an appropriate consideration to addressing the climate change, including:
- a. Climate change mitigation measures which focus on reducing the impact of human activity on the climate system, by means such as:
 - i. designing new communities and buildings to be energy and resource efficient;
 - ii. incorporating renewable technologies;
 - iii. reducing existing and potential source of pollution;
 - iv. reducing transport related carbon emissions through the promotion of sustainable modes of transport; and
 - b. Climate change adaptation measures which focus on ensuring that new developments and the wider community are adaptable and resilient to the changing climate, by means such as:
 - i. buildings, infrastructure and construction techniques that are designed to adapt to a changing climate and to avoid contributing to its impacts, including urban heat island effect;

³ NASA, Carbon dioxide hits new high: http://climate.nasa.gov/climate_resources/7/

⁴ NASA, NOAA Data Show 2016 Warmest Year on Record Globally: <https://www.nasa.gov/press-release/nasa-noaa-data-show-2016-warmest-year-on-record-globally>

⁵ Flood Risk Assessments: Climate Change Allowances (2017) Environment Agency <http://bit.ly/2w5Zo4o>

⁶ DEFRA (2018) The National Adaptation Programme and the Third Strategy for Climate Adaptation Reporting. Available at:

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/727252/national-adaptation-programme-2018.pdf

⁷ HM Government (2017) UK Climate Change Risk Assessment 2017. Available at:

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/584281/uk-climate-change-risk-assess-2017.pdf

- ii. safe and secure environment which is resilient against the impacts of climate change long term stresses and extreme weather events;
- iii. enhancing biodiversity and ecological resilience where possible;
- c. Efficient resource management measures that take into account issues such as,
 - i. allocation and density of development;
 - ii. resource consumption (including water, energy, construction materials) during construction and operation as well as the environmental, social and economic impacts of the construction process itself and how buildings are designed and used.

Sustainable Construction and Resource Efficiency

- 1.17 Consideration of sustainable design and construction issues should take place at the earliest possible stage in the development process. This will provide the greatest opportunities for a well designed and constructed development and at the same time enable costs to be minimised. Therefore, developers should consider sustainable construction issues in pre-application discussions with the Local Planning Authority. Proposals should be captured within a Sustainability Statement, which can form part of the Design and Access Statement.

POLICY BE02: SUSTAINABLE CONSTRUCTION AND RESOURCE EFFICIENCY

The Council will require all development proposals, including the conversion or re-use of existing buildings, to:

- a. maximise the principles of energy conservation and efficiency in the design, massing, siting, orientation, layout, construction method and use of materials;
- b. submit details of measures that increase resilience to the threat of climate change, including but not limited to summertime overheating;
- c. demonstrates how the water conservation measures were incorporated in the proposals;
- d. incorporate suitable Sustainable Urban Drainage Systems (SuDs), such as green roofs and rainwater attenuation measures;
- e. incorporate the reduction in the use of mineral resources, including an increase in the re-use of aggregate;

- f. include commercial and domestic scale renewable energy and decentralised energy as part of new development.

- 1.18 Sustainable design and construction are concerned with the implementation of sustainable development in individual sites and buildings. It takes account of the resources used in construction, and of the environmental, social and economic impacts of the construction process itself and how buildings are designed and used.
- 1.19 The choice of sustainability measures and how they are implemented may vary substantially from development to development. However, the general principles of sustainable design and construction should be applied to all scales and types of development. More guidance on areas to be covered in the Sustainability Statement is set out in Figure 5.2.

Renewable Energy and Low Carbon Development

- 1.20 The NPPF 2018 requires the planning system to support the transition to a low carbon future in a changing climate, encourage the use of renewable and low carbon energy and associated infrastructure in line with the Climate Change Act 2008.
- 1.21 The Brentwood Renewable Energy Study (2014) states that around half of all energy used in the Borough is from road transport, with a third from domestic use and about a fifth from the commercial and industrial sector.
- 1.22 Statistical information from the Department for Business, Energy and Industrial Strategy (BEIS)⁸, indicates that the Brentwood Borough has relatively high levels of domestic gas and electricity consumption. Over the period 2010 -2015, Brentwood had the highest level of domestic customer mean gas consumption in the County and was also significantly higher than the England and East of England averages for the same period. Electricity usage for Brentwood ranks about 4th in the County and also significantly higher than the England and East of England averages for the period 2010-2015. One of the reasons for the higher domestic energy use in Brentwood maybe that homes in the Borough are 13% larger than homes in England on average.
- 1.23 Transport emissions in the Borough are also higher than the national average due to increased car ownership and access to vehicles. Over the period of the Plan, energy use and carbon emissions may increase by 10% following a “business as usual” trajectory.

⁸ BEIS Sub-national consumption statistics

POLICY BE03: CARBON REDUCTION, RENEWABLE ENERGY AND WATER EFFICIENCY

Proposals for renewable, low carbon or decentralised energy schemes will be supported provided they can demonstrate that they will not result in adverse impacts, including cumulative and visual impacts which cannot be satisfactorily addressed.

- a. Development should meet the following minimum standards of sustainable construction and carbon reduction:

- i. New Residential Development:

Year	Minimum sustainable construction standards	On-site carbon reduction	Water efficiency
Up to 2020	In line with Part L Building Regulations	At least a 10% reduction in carbon dioxide emissions above the requirements of Part L Building Regulations	110 litres per person per day limit Major development is expected to provide more substantial water management measures, such as rain/grey water harvesting.
2020 onwards	In line with Part L Building Regulations	In line with national nearly-zero carbon policy. If national nearly- zero carbon policy is unavailable, the previous target applies. However, the minimum improvement	110 litres per person per day limit Major development is expected to provide more substantial water management measures, such as rain/grey

		over the Building Regulations baseline may be increased to reflect the reduction in costs of more efficient construction methods.	water harvesting.
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ii. New Non-residential Development

Year	Minimum BREEAM Rating*	On-site carbon reduction	Water efficiency
Up to 2020	<p>BREEAM 'Very Good' rating to be achieved in the following categories:</p> <ul style="list-style-type: none"> • Man 02 • Ene 04 • Mat 03 • Wst 01 • Wst 03 • LE 03 	At least a 10% reduction in carbon dioxide emissions above the requirements of Part L Building Regulations	<p>BREEAM 'Very Good' rating to be achieved in category Wat 01</p> <p>Major development is expected to provide more substantial water management measures, such as grey water harvesting.</p>
2020 onwards	<p>BREEAM 'Excellent' rating to be achieved in the following categories:</p> <ul style="list-style-type: none"> • Man 02 • Ene 04 • Mat 03 • Wst 01 • Wst 03 	<p>In line with national nearly-zero carbon policy</p> <p>If national nearly-zero carbon policy is unavailable, the 2016 - 2020 target applies. However, the minimum improvement over the Building Regulations baseline may be</p>	<p>BREEAM 'Excellent' rating to be achieved in category Wat 01</p> <p>Major development is expected to provide more substantial water management</p>

	<ul style="list-style-type: none"> • LE 03 	increased to reflect the reduction in costs of more efficient construction methods.	measures, such as grey water harvesting.
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*: The version of BREEAM that a building must be assessed under should be the latest BREEAM scheme and not be based on scheme versions that have been registered under at the pre-planning stages of a project. Other construction standards, such as LEEDs or Passivhaus, will be supported provided that they are broadly at least in line with the standards set out above.

- b. Application of major development, where feasible, will be required to provide a minimum of 10% of the predicted energy needs of the development from renewable energy;
- c. Application of major development, including redevelopment of existing floor space, should be accompanied by a Sustainability Statement (see figure X: Areas to be covered in the Sustainability Statement) as part of the Design and Access Statement submitted with their planning application, outlining their approach to the following issues:
 - i. adaptation to climate change;
 - ii. carbon reduction;
 - iii. water management;
 - iv. site waste management;
 - v. use of materials;
- d. Where it is not possible to meet these standards, applicants must demonstrate compelling reasons and provide evidence, as to why achieving the sustainability standards outlined above for residential and non-residential developments would not be technically feasible or economically viable;
- e. Where on-site provision of renewable technologies is not appropriate, or where it is clearly demonstrated that the above target cannot be fully achieved on-site, any shortfall should be provided via:
 - i. 'allowable solutions contributions' via Section 106 or CIL. These funds will then be used for energy efficiency and energy generation initiatives or other measure(s) required to offset the environmental impact of the development;

- ii. off-site provision, provided that an alternative proposal is identified and delivery is certain.

Carbon reduction target: challenging policy environment and long term direction

- 1.24 The UK Carbon Plan (HM Gov, 2011) states that if we are to achieve the 2050 carbon target, by 2050 the emissions footprint of our buildings will need to be almost zero. The UK's Committee on Climate Change in 2015 reinstates that 'meeting the 2050 target will require that emissions from energy use - power, heat and transport - are almost eliminated'⁹.
- 1.25 The UK Government scrapped the zero-carbon homes policy in summer 2015. Consequently, the UK's 2012 National Plan to meet the Directive will need a revision in light of the removal of the zero-carbon homes. Short-term policy on climate change since then suffers from uncertainty.
- 1.26 However, the Climate Change Act 2008 commits the UK government by law to reducing greenhouse gas emissions by at least 80% of 1990 levels by 2050. In addition, as long as the UK is a member of the EU, it still has to comply with the EU's Energy Performance of Buildings Directive¹⁰, which requires that by 2020 the demand from all new buildings in Member States is 'nearly zero-energy'. The Paris Agreement also has implications on the UK carbon reduction target¹¹.
- 1.27 Therefore the long-term trajectory retains: 'we will move away from the use of fossil fuels for heating and hot water and towards low carbon alternatives such as heat pumps or heating networks. By 2050, emissions from heating and powering our buildings will be virtually zero.'¹²
- 1.28 In light of the challenging policy environment for energy planning and long term direction, the Council takes a positive approach in supporting the transition towards a low carbon future and addressing the climate change. This is in line with the NPPF (2018), which requires local planning authorities to 'contribute to radical reductions in greenhouse gas emissions' (paragraph 148).
- 1.29 The Government originally set targets to ensure all new homes are zero carbon by 2016 and all new non-residential buildings are zero carbon by 2019. Improvements in resource efficiency to meet this target was made through Building Regulations which set standards for

⁹ Sectoral Scenarios for the Fifth Carbon Budget - Technical Report, Committee on Climate Change, 2015 <https://www.theccc.org.uk/publication/sectoral-scenarios-for-the-fifth-carbon-budget-technical-report/>

¹⁰ Directive 2010/31/EU of the European Parliament and of the Council of 19 May 2010 on the energy performance of buildings. <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2010:153:0013:0035:EN:PDF>

¹¹ 'Historic Paris Agreement on climate change. 195 nations set path to keep temperature rise well below 2 degrees Celsius'. News Release. United Nations Framework Convention on Climate Change, 12 Nov. 2015.

¹² Increasing the Number of Nearly Zero Energy Buildings. UK National Plan. HM Government, Sept. 2012 http://newsroom.unfccc.int/unfccc-newsroom/finale_cop21/

design and construction that applies to most new buildings, regardless of type. In 2016, Part L of the Building Regulations introduced a change to the energy efficiency standard, raising it to the equivalent of Code for Sustainable Homes Level 4.

- 1.30 The Planning and Energy Act 2008 allows Local Authorities to set local targets for carbon emissions above Building Regulations. The Deregulation Act 2015 (S43) which removes this right has not been enacted, meaning authorities can continue to set policy above Building Regulations.
- 1.31 The achievement of national targets for the reduction of carbon emissions will require action across all sectors of energy use. High standard of construction in new development is important if the United Kingdom is to meet its legally binding carbon reduction targets.
- 1.32 To contribute to these targets, this policy requires an on-site reduction of at least 10 per cent beyond the baseline of part L of the current Building Regulations. The minimum improvement over the Target Emission Rate (TER) will be increased in 2020 and over a period of time in line with the national zero-carbon policy and reflect the costs of more efficient construction methods.
- 1.33 Regulation 25B “Nearly zero-energy requirements for new buildings” of the Building Regulations will not come into force until 2019 at the earliest¹³ and statutory guidance on how to comply with Regulation 25B is not available at the time of this Local Plan being published. All developments are required to comply with this Regulation when it comes into force. If the national zero carbon policy is still unavailable after 2020, the 2016 - 2020 target applies; however, the minimum improvement over the Building Regulations baseline will be reviewed.
- 1.34 According to the Brentwood Renewable Energy Study (2014), an international analysis of certified buildings has shown that the additional cost of achieving BREEAM “Very Good” is expected to be minor and so therefore should not be burdensome for developers. The version of BREEAM that a building must be assessed under should be the latest BREEAM scheme and not be based on scheme versions that have been registered under at the pre-planning stages of a project.
- 1.35 There are many approaches that can be taken to meeting the construction standards required by this policy. The Council will be supportive of innovative approaches to meeting and exceeding the standards set out in the policy. Where other construction standards are proposed for new developments, for example Leadership in Energy and Environmental Design (LEED) or construction methods such as Passivhaus Standard, these will be supported, provided that it can be demonstrated that they are broadly in line with the standards set out above, particularly in relation to carbon reduction and water efficiency.
- 1.36 The Council expects all new development to apply the energy hierarchy, set out in Figure 5.1, by reducing the need for energy, supplying energy efficiently, and using low and zero carbon technologies.

¹³ The Building Regulations website, <http://cms.thebuildingregulations.org.uk/document-section/section-1-the-requirements-2/>

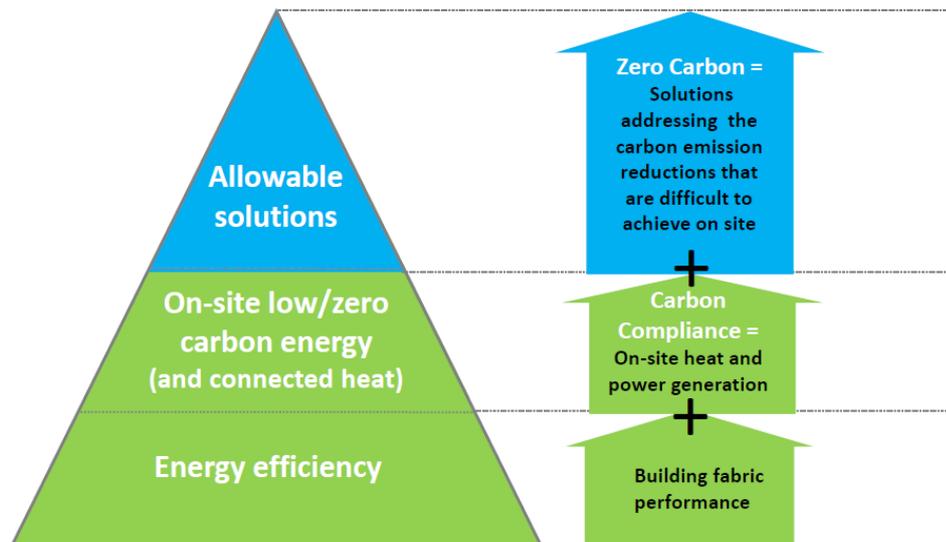


Figure 5.1: Energy Hierarchy

Adaptation to climate change

Adaptation measures can be implemented at a variety of scales, from individual buildings up to community and conurbation scale. Measures that will have benefits beyond site boundaries, and that will have a cumulative impact in areas where development is to be phased, should also be pursued. Applicants should refer to best practice guidance such as: TCPA's Climate change adaptation by design: A Guide For Sustainable Communities (2007); and Community Energy: Planning For A Low Carbon Future (2008).

Carbon reduction

Proposals should demonstrate how the carbon reduction target will be met within the energy hierarchy, as illustrated in Figure 5.1, in particular how the proposals:

- i. minimises the energy demand of new buildings by means such as fabric first approach and design;
- ii. utilises energy efficient supply through low carbon technologies; and
- iii. supplies energy from new, renewable energy sources;
- iv. where on-site provision of renewable technologies is not appropriate, confirmation of offsite arrangement should be submitted.

Proposals for major development should contain a calculation of the energy demand and carbon dioxide emissions covered by Building Regulations and, separately, the energy demand and carbon dioxide emissions from any other part of the development, including

plant or equipment, that are not covered by the Building Regulations (i.e. the unregulated emissions), at each stage of the energy hierarchy.

Proposals should also explain how the site has been future-proofed to achieve zero-carbon on-site emissions by 2050.

Water management

Development must optimise the opportunities for efficient water use, reuse and recycling, including integrated water management and water conservation.

Site waste management

Developments should be designed in a way that reduces the amount of construction waste and maximises the reuse and recycling of materials at all stages of a development's lifecycle.

All new development should be designed to make it easier for future occupants to maximise levels of recycling and reduce waste being sent to landfill. In order to do so, storage capacity for waste, both internal and external, should be an integral element of the design of new developments. The Council will be supportive of innovative approaches to waste management.

Use of materials

All new developments should be designed to maximise resource efficiency and identify, source, and use environmentally and socially responsible materials. There are four principal considerations that should influence the sourcing of materials:

Responsible sourcing – sourcing materials from known legal and certified sources through the use of environmental management systems and chain of custody schemes including the sourcing of timber accredited by the Forestry Stewardship Council (FSC), or the Programme for the Endorsement of Forest Certification (PEFC);

Secondary materials – reclaiming and reusing material arising from the demolition of existing buildings and preparation of sites for development, as well as materials from other post-consumer waste streams;

Embodied impact of materials – the aim should be to maximise the specification of major building elements to achieve an area-weighted rating of A or B as defined in the Building Research Establishment (BRE) Green Guide to Specification. Consideration should also be given to locally sourced materials;

Healthy materials – where possible developers should specify materials that represent a lower risk to the health of both construction workers and occupants. For example,

selecting materials with zero or low volatile organic compound (VOC) levels to provide a healthy environment for residents.

Other

As well as the consideration of the above issues, the sustainability statement in support of the application should also address how the proposals meet all other policies relating to sustainability throughout the plan, including:

- v. biodiversity and ecology;
- vi. land, water, noise and air pollution;
- vii. transport, mobility and access;
- viii. health and well-being, including provision of open space;
- ix. culture, heritage and the quality of built form, including efficient use of land.

Figure 5.2: Areas to be covered in the Sustainability Statement and recommended approach

Allowable Solution

- 1.37 As part of the Government’s policy for achieving zero carbon performance, the policy seeks to establish realistic limits for carbon compliance (on site carbon target for buildings) and allows for the full zero carbon standard to be achieved through the use of “allowable solutions”. These are envisaged as mainly near site or off-site carbon saving projects which would compensate for carbon emissions reductions that are difficult to achieve on site. Local authorities can explore opportunities for using carbon offset funds and community energy funds as a way of delivering the concept of allowable solutions in their areas.

Water Efficiency

- 1.38 Brentwood Water Cycle Study 2018 ¹⁴ identifies the Borough as lying within an area of Serious Water Stress. A semi-arid climate and succession of dry winters can lead to groundwater levels within Brentwood being susceptible to multi-season droughts. The quality of the Borough’s watercourses is generally poor, while sewerage infrastructure in the north of the Borough is operating at full capacity. The study recommends requiring all new developments to submit a water sustainability assessment and developers to demonstrate that they will achieve the water consumption reduction to Level 3/4 of the Code for Sustainable Homes for all residential developments and for non-residential developments to achieve BREEAM ‘Very Good’ standard for water consumption targets. As the Code for Sustainable Homes has been withdrawn, water conservation measures will be required to ensure a 110 litres per person per day limit, at the level formerly considered at Level 3-4 in line with the Water Cycle Study 2018.

¹⁴ Brentwood Scoping and Outline Water Cycle Study 2018 Wood

1.39 Major development are encouraged to incorporate more substantial water management measures, such as grey water harvesting. This is supported by the Interim Sustainability Appraisal (2016, paragraph 21.1.4).

1.40 For details on flood risk measures refer to Policy NE07 Flood Risk.

Renewable Energy Generation

1.41 Incorporating renewable energy generation and energy efficiency measures into new development will be essential in order to achieve carbon reduction targets. The Government has set a target to deliver 15% of the UK's energy consumption from renewable sources by 2020 yet in 2016, only 8.9% of our energy was met by renewable generation. ¹⁵

1.42 All developments should maximise opportunities for on-site electricity and heat production as well as use innovative building materials and smart technologies to reduce carbon emissions, reduce energy costs to occupants and improve the Borough's energy resilience.

POLICY BE04: ESTABLISHING LOW CARBON AND RENEWABLE ENERGY INFRASTRUCTURE NETWORK

Stand-alone renewable energy infrastructure

Community-led initiatives for renewable and low carbon energy, including developments outside areas identified in local plans or other strategic policies that are being taken forward through neighbourhood planning, will be encouraged, subject to the acceptability of their wider impacts including on the green belt.

Decentralised energy infrastructure

The Council will work with developers and energy providers to seek opportunities to expand Brentwood's decentralised energy infrastructure.

- a. Strategic development that could play a key role in establishing a decentralised energy network, for example sites within the South Brentwood Growth Corridor, Warley extension masterplan area, Officer's Meadows masterplan area, should engage at an early stage with the Council, stakeholders and relevant energy companies to establish the future energy requirements and infrastructure arising from large-scale development proposals and clusters of significant new development. Applicants of these sites will prepare energy masterplans which establish the most effective energy strategy and supply options.
- b. New development of over 500 dwelling units, or brownfield and urban extensions at 500 units or more, or where the clustering of neighbouring

¹⁵ Digest of UK energy statistics 2017 (DUKES), Department for Business, Energy and Industrial Strategy

sites totals over 500 units, will be expected to incorporate decentralised energy infrastructure in line with the following hierarchy:

- i. Where there is an existing heat network, new development will be expected to connect to it;
 - ii. Where there is no existing heat network, new development will be expected to deliver an onsite heat network, unless demonstrated that this would render the development unviable;
 - iii. Where a developer is unable to deliver the heat network, they need to demonstrate that they have worked in detail with third parties (commercially or community) to fully assess the opportunity;
 - iv. Where a heat network opportunity is not currently viable and no third party is interested in its delivery, the development should be designed to facilitate future connection to a heat network unless it can be demonstrated that a lower carbon alternative has been put in place.
- c. New development will be expected to demonstrate that the heating and cooling system have been selected according to the following heat hierarchy:
- i. Connection to existing CHP/CCHP distribution network;
 - ii. Site-wide renewable CHP/CCHP;
 - iii. Site-wide gas-fired CHP/CCHP;
 - iv. Site-wide renewable community heating/cooling;
 - v. Site-wide gas-fired community heating/cooling;
 - vi. Individual building renewable heating.

Building scale technologies

Innovative approaches to the installation and/or construction of community and individually owned energy generation facilities or low carbon homes which demonstrate sustainable use of resources and high energy efficiency levels will be supported.

1.43 According to the International Renewable Energy Agency (IRENA) ¹⁶, renewable energy will be cheaper than fossil fuels by 2020 thanks to improvements in technology. The recent

¹⁶ IRENA (2018) Renewable Power Generation Costs in 2017, International Renewable Energy Agency

Global Status Report by REN21¹⁷ also states that renewable energy currently makes up a fifth of the world's electrical power supply, and its capacity has doubled over the past 10 years. Renewables are experiencing a virtuous cycle of technology improvement and cost reduction. How policies can support the ability to connect with supply grid, rather than viability, will be the main challenge in the transition towards the low carbon future.

Stand-alone renewable energy

- 1.44 It is acknowledged that standalone technologies such as large-scale wind turbines and photovoltaic (PV) arrays could be significant sources of energy. The resource assessment in the Brentwood Renewable Energy Study (2014) demonstrated that the Borough's renewable energy target will not be possible without deploying large commercial scale renewable technologies. However, stand-alone renewable energy schemes would occur within and could impact on the Green Belt and would also be constrained by proximity to suitable connection to the national electricity grid. Therefore, whilst the Council would encourage opportunities for stand-alone renewable energy schemes within Brentwood, this will need careful consideration and be assessed on a case by case basis. Selection of the most appropriate locations would depend on balancing technical factors (such as proximity to substations) with minimising the impact of those developments through careful siting and mitigation measures. The Council would also support community-led initiatives for renewable and low carbon energy, including developments outside areas identified in local plans or other strategic policies that are being taken forward through neighbourhood planning, in line with the NPPF (2018, paragraph 152).

Decentralised energy

- 1.45 Decentralised energy broadly refers to energy that is generated off the main grid, including micro-renewables, heating and cooling. It can refer to energy from waste plants, combined heat and power, district heating and cooling, as well as geothermal, biomass or solar energy. Schemes can serve a single building or a whole community, even being built out across entire cities. Decentralised energy is a rapidly-deployable and efficient way to meet demand, whilst improving energy security and sustainability at the same time. Other benefits of decentralised energy include:
- i. increased conversion efficiency (capture and use of heat generated, reduced transmission losses)
 - ii. increased use of renewable, carbon-neutral and low-carbon sources of fuel
 - iii. more flexibility for generation to match local demand patterns for electricity and heat
 - iv. greater energy security for businesses that control their own generation
 - v. greater awareness of energy issues through community-based energy systems, driving a change in social attitudes and more efficient use of our energy resources
- 1.46 District heating and cooling systems (DH) are an important enabling technology for the use of renewables and need to be a central component of the decentralised system. DH can combine different sources of heat and can play a positive role in the integration of variable

¹⁷ REN21 (2018) Renewables 2018: Global Status Report. Renewable Energy Policy Network for the 21st Century

renewable energy. In “the Future of Heating”¹⁸ the Government highlighted the role for heat networks for delivering low carbon heat. District heating can be retrofitted for existing heat customers or installed in developments as part of a site wide low or zero carbon energy solution.

1.47 The East of England resource assessment and the Brentwood Renewable Energy Study 2014 suggest that there are unlikely to be major anchor and high heat density areas in the Borough suitable for retrofit-only DH networks. New development will therefore play an important role in heat network development in the Borough. Strategic allocations could offer great opportunities to expand the Borough’s decentralised energy infrastructure and were identified in the Brentwood IDP, these include:

- i. Sites in the South Brentwood Growth Corridor masterplan area including Brentwood Enterprise Park and Dunton Hills Garden Village;
- ii. Warley extension masterplan area;
- iii. Officer’s Meadows masterplan area.

1.48 According to the Brentwood Renewable Energy Study 2014, DH is a viable low and zero carbon energy solution for new development; the viability of DH and CHP schemes are improved with increased scale, density and mix of uses. Smaller sites close to large existing loads, on the other hand, provide opportunities for collaboration which provides cost effective, energy efficient, low carbon heat and electricity.

1.49 The financial opportunity from DH schemes exists as there are economies of scale where the costs of providing a central heat source that also generates power, together with the associated distribution infrastructure, outweighs alternative means of complying with Part L. Where development occurs piecemeal, it is likely that individual developers for each site would chose traditional means of meeting Part L Building Regulations, which may result in a loss of opportunity.

1.50 Energy masterplanning at the large scale offers a unique opportunity to consider and plan for a robust infrastructure that will support the aspirations of a sustainable community – not only in terms of demand reduction, energy efficiency and renewable energy supply, but also in relation to water and waste management, transport and biodiversity. All these issues must be considered from the earliest stage and will have a major influence on the energy masterplan concept. Particular attention should be given to opportunities for utilizing existing decentralised and renewable or low-carbon energy supply systems and to fostering the development of new opportunities to supply proposed and existing development. Such opportunities could include co-locating potential heat customers and heat suppliers. Using the masterplanning process to map out zero-carbon and renewable energy opportunities in the area will help in identifying the potential for renewables at all scales, including community-scale schemes (TCPA Practical Guides for Creating Successful New Communities, Guide 4: Planning for Energy and Climate Change, 2016).

1.51 An Energy Masterplan should identify:

¹⁸ DECC (2013) The Future of Heating: Meeting the challenge

- i. major heat loads (including anchor heat loads, with particular reference to sites such as schools, hospitals and social housing);
- ii. heat loads from existing buildings that can be connected to future phases of a heat network major heat supply plant;
- iii. possible opportunities to utilise energy from waste;
- iv. secondary heat sources;
- v. opportunities for low temperature heat networks;
- vi. possible land for energy centres and/or energy storage;
- vii. possible heating and cooling network routes;
- viii. opportunities for futureproofing utility infrastructure networks to minimise the impact from road works;
- ix. infrastructure and land requirements for electricity and gas supplies;
- x. implementation options for delivering feasible projects, considering issues of procurement, funding and risk.

Building scale technologies

- 1.52 Brentwood Borough has relatively high levels of domestic gas and electricity consumption, therefore building-scale technologies have potentials to meet the Borough's domestic energy demands. Building scale technologies often comprise permitted development and can be included in new development or retro-fitted to existing units. Building scale technologies with the greatest potential include rooftop solar technologies and biomass boilers in the commercial and industrial sector.

POLICY BE05: ASSESSING ENERGY INFRASTRUCTURE

Proposals for development involving the provision of individual and community scale energy facilities from renewable and/or low carbon sources, will be supported, subject to the acceptability of their wider impacts. As part of such proposals, the following should be demonstrated:

- a. the siting and scale of the proposed development is appropriate to its setting and position in the wider landscape;
- b. the proposed development does not create an unacceptable impact on the local amenities, the environment, the historic environment, the setting of a heritage asset, or a feature of natural or biodiversity importance. These

considerations will include air quality, as well as noise issues associated with certain renewable and low carbon technologies;

- c. any impacts identified have been minimised as far as possible;
- d. where any localised adverse environmental effects remain, these are outweighed by the wider environmental, economic or social benefits of the scheme;
- e. renewable and low carbon energy development proposals located within the Green Belt will need to demonstrate very special circumstances, and ensure that adverse impacts are addressed satisfactorily (including cumulative landscape and visual impacts).

- 1.53 While the Council wishes to promote renewable and low carbon energy generation, there is also a need to balance this aim against other objectives for Brentwood, such as minimising pollution, and protection and enhancement of the natural and historic environment.
- 1.54 Other policies in the local plan relate to the safeguarding of the natural and historic environment and the protection of national or locally designated sites and buildings, and these should be taken into account in applications for energy schemes.
- 1.55 Potential impacts may be acceptable if they are minor, or are outweighed by wider benefits, including the environmental benefits associated with increased production of energy from renewable and low carbon sources, which will contribute to reducing carbon and other emissions.
- 1.56 In determining planning applications for the development of renewable or low-carbon energy, and associated infrastructure in the Green Belt, careful consideration will be given to the impacts of such projects on the Green Belt. Developers will need to demonstrate very special circumstances that clearly outweigh any harm by reason of inappropriateness and any other harm if projects are to proceed.

POLICY BE06: IMPROVING ENERGY EFFICIENCY IN EXISTING DWELLINGS

To support the transition to a low carbon future, and to tackle issues of rising energy costs, applications for extensions to existing dwellings and/or the conversion of ancillary residential floorspace to living accommodation should be accompanied by cost-effective improvements to the energy efficiency of the existing dwelling. The requirements of this policy will apply where the following measures have not already been implemented:

- a. cavity wall and/or loft insulation at least to the standards stipulated by Building Regulations;
- b. heating controls upgrade;
- c. E, F and G rated boilers replaced with an A-rated condensing boiler; and
- d. draught proofing around external doors, windows and un-used chimney.

- 1.57 In order for Brentwood to contribute to the national targets for carbon reduction, there is a need to reduce emissions from existing buildings as well as new ones. This policy seeks to utilise the opportunities that arise for making cost-effective energy efficiency improvements when works to extend existing homes are undertaken.
- 1.58 The aim of the policy is to help homeowners implement measures that will enhance the energy efficiency of their homes, helping to reduce fuel costs at a time of rising energy prices. Domestic emissions are sensitive to the weather, therefore the installation of proper insulation, heating control, condensing boiler and draught proofing will help achieve efficient energy use whilst alleviate many causes of damp and mold.
- 1.59 If the property has an Energy Performance Certificate (EPC), these could also be submitted as part of the planning application to demonstrate the need to comply with the policy.
- 1.60 Care will need to be taken in applying the policy to listed buildings and other heritage assets, to ensure that they are not damaged by inappropriate interventions. The implementation of the policy will be case by case, with officers recommending measures that would be suitable for that particular property, bearing in mind its age, type of construction and historic significance. There may be cases where improvements cannot be made to an existing dwelling without causing harm to the significance of the heritage asset, and in such circumstances the requirements of this policy will not be implemented.
- 1.61 The Energy Saving Trust's website¹⁹ offers useful guides on energy efficiency improvements in the home, as well as the cost of these measures and how much they save home owners' energy bills.

¹⁹ <http://www.energysavingtrust.org.uk>

POLICY BE07: MANAGING HEAT RISK

Development proposals should minimise internal heat gain and the risks of overheating through design, layout, orientation and materials.

Major development proposals should demonstrate how they will reduce the potential for overheating and reliance on air conditioning systems by:

- a. minimising internal heat generation through energy efficient design;
- b. reducing the amount of heat entering a building through orientation, shading, albedo, fenestration, insulation and the provision of green roofs and walls;
- c. managing the heat within the building through exposed internal thermal mass and high ceilings;
- d. providing passive ventilation;
- e. providing mechanical ventilation; and
- f. providing active cooling systems.

- 1.62 For some, climate change and severe weather events could cause them discomfort; for others, especially children, the elderly and those who have certain health conditions, the effects can be potentially lethal. According to the first UK Climate Change Risk Assessment (CCRA) in 2012, there are around 2,000 heat-related deaths in the UK, it projects that this number could more than double by the 2050s. Much of this increased risk is thought to be caused by exposure to high indoor temperatures. Overheating risks to health also emerged as one of the top six key risks where more action is required in the most recent UK Climate Change Risk Assessment 2017.²⁰
- 1.63 The Climate Change Act (2008) and the NPPF (2018, Paragraph 149) also require planning to take a proactive approach to mitigating and adapting to the risk of overheating from rising temperatures.
- 1.64 Many aspects of building design can lead to increases in overheating risk, including high proportions of glazing and an increase in the air tightness of buildings. There are a number of low-energy-intensive measures that can mitigate this risk; these include but not limit to solar shading, building orientation, solar-controlled glazing, living walls and green roof. For Major developments, an landscape scheme integrating multi-functional Green and Blue

²⁰ UK Climate Change Risk Assessment, HM (2017)

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/584281/uk-climate-change-risk-assess-2017.pdf

infrastructure should be developed along the built form as this can be part of a sustainable and energy efficient development.

- 1.65 Developers should refer to most up to date guidance and best practice examples. The Chartered Institution of Building Services Engineers (CIBSE) produced a series of guidance on assessing and mitigating overheating risk in new developments, in particular:
- i. TM 59: Design Methodology for The Assessment Of Overheating Risk In Homes - is relevant for domestic developments; and
 - ii. TM52: The Limits of Thermal Comfort: Avoiding Overheating in European Buildings - is relevant for non-domestic developments.

These can also be applied to refurbishment projects.

Sustainable Drainage

POLICY BE08: SUSTAINABLE DRAINAGE

All developments should incorporate appropriate Sustainable Drainage Systems (SuDS) for the disposal of surface water, in order to avoid any increase in flood risk or adverse impact on water quality.

Applications must meet the following requirements:

Quantity

- a. on brownfield developments SuDS features will be required to achieve a reduced run-off rate;
- b. sites over 0.1 hectares in Flood Zone 1 will be required to submit a drainage impact assessment. Larger sites over 1 hectare in Zone 1 or all schemes in Flood Zone 2 and 3 must be accompanied by a Flood Risk Assessment (FRA);

Quality

- c. the design must follow an index-based approach when managing water quality. Implementation in line with Chapter 26 of the updated CIRIA SuDS Manual 21 is required. Source control techniques such as green roofs, permeable paving and swales should be used so that rainfall runoff in events up to 5mm does not leave the site;

²¹ The SuDS Manual, 2017. ciria

Amenity and Biodiversity

- d. SuDS should be sensitively designed and located to promote improved biodiversity, water use efficiency, river water quality, enhanced landscape and good quality spaces that benefit public amenities in the area;
- e. redeveloped brownfield sites should disconnect any surface water drainage from the foul network;
- f. the preferred hierarchy of managing surface water drainage from any development is through infiltration measures, secondly attenuation and discharge to watercourses, and if these cannot be met, through discharge to surface water only sewers;
- g. when discharging surface water to a public sewer, developers will be required to provide evidence that capacity exists in the public sewerage network to serve their development.

- 1.66 Sustainable Drainage Systems (SuDS) are the primary means by which increased surface run-off can be mitigated. They can manage runoff flow rates to reduce the impact of urbanisation on flooding, protect or enhance water quality and provide a multi-functional use of land to deliver biodiversity, landscape and public amenity aspirations. They do this by dealing with runoff and pollution as close as possible to its source and protect water resources from point pollution. SuDs allow new development in areas where existing drainage systems are close to full capacity, thereby enabling development within existing urban areas.
- 1.67 Wherever possible, sustainable drainage systems techniques must be utilised to dispose of surface rainwater so that it is retained either on site or within the immediate area, reducing the existing rate of run-off. Such systems may include surface water storage areas, flow limiting devices and infiltration areas or soakaways. This approach is commonly known as the 'surface water management train' or 'source-to stream'.
- 1.68 The Environment Agency introduced a new classification system in 2011 enabled by The European Water Framework Directive. This system allows for more rigorous and accurate assessment of water quality. Some water bodies will never achieve good ecological status, however, because they have been physically altered for a specific use, such as navigation, recreation, water storage or flood protection
- 1.69 Essex County Council is the Lead Local Flood Authority. Applicants will need to prove compliance with the above drainage hierarchy and ensure sustainable drainage has been adequately utilised, taking into account potential land contamination issues and protection of existing water quality, in line with national policy and guidance.

- 1.70 The applicability of SuDS techniques for use on potential development sites will depend upon proposed and existing land-uses influencing the volume of water required to be attenuated, catchment characteristics and the underlying site geology.
- 1.71 When runoff does occur, treatment within SuDS components is essential for frequent rainfall events, for example up to 1:1 year return period event, where urban contaminants are being washed off urban surfaces, and the aggregated contribution to the total pollutant load to the receiving waterbody is potentially high.
- 1.72 For rainfall events greater than the 1:1 event, it is likely that the dilution will be significant and will reduce the environmental risk. It is important that the SuDS design aims to minimise the risk of re-mobilisation and washout of any pollutants already captured by the system.
- 1.73 Developers are encouraged to refer to the Strategic Flood Risk Assessment 2018 (which maps infiltration areas) and guidance provided by the Construction Industry Research and Information Association (ciria) for design criteria, technical feasibility and to ensure the future sustainability of the Borough's drainage system. Essex County Council have produced a SuDS Design Guide (2015) to help steer what is expected from development to complement national requirements and prioritise local needs.

Communications Infrastructure

- 1.74 The Council recognises the growing importance of modern, effective telecommunications systems to serve local business and communities and their crucial role in the national and local economy.
- 1.75 High quality communications infrastructure including ultrafast broadband and mobile communication will be provided by working collaboratively with Essex County Council, communications operators and providers, and supporting initiatives, technologies and developments which increase and improve coverage and quality throughout the Borough.

POLICY BE09: COMMUNICATIONS INFRASTRUCTURE

The Council will support investment in high quality communications infrastructure and superfast broadband, including community-based networks, particularly where alternative technologies need to be used in rural areas of the Borough.

Applications from service providers for new or the expansion of existing communications infrastructure (including telecommunications masts, equipment and associated development, and superfast broadband) are supported subject to the following criteria:

- a. evidence is provided to demonstrate, to the Council's satisfaction, that the possibility of mast or site sharing has been fully explored and no suitable

alternative sites are available in the locality including the erection of antennae on existing buildings or other suitable structures;

- b. evidence is provided to confirm that the proposals conform to the latest national/international guidelines on radiation protection and would cause no harm to highway safety;
- c. evidence is provided to confirm that the proposals would cause no harm to highway safety;
- d. the proposal has sympathetic design and camouflage, having regard to other policies in the Local Plan;
- e. the proposal has been designed to minimise disruption should the need for maintenance, adaption or future upgrades arise;
- f. the proposal will not cause significant and irremediable interference with other electrical equipment, air traffic services or instrumentation operated in the national interest; and
- g. the proposal conforms to the latest International Commission on Non-Ionising Radiation Protection (ICNIRP) guidelines, taking account of the cumulative impact of all operator equipment located on the mast/site where appropriate (i.e. prevent location to sensitive community uses, including schools).

- 1.76 The Government has committed to improving broadband access. As part of this commitment the Superfast Essex Programme aims to extend the fibre broadband network as far as possible in Essex. The Council will work with broadband infrastructure providers and Essex County Council to ensure as wider coverage as possible. Upgrades to existing and new communications infrastructure, including ultrafast broadband and mobile communication will be strongly supported, including masts, buildings and other related structures, to harness the opportunities arising from new high-quality communications.
- 1.77 The objective of this policy is to ensure the right balance is struck between providing essential telecommunications infrastructure and protecting the environment and local amenity, particularly in the Boroughs sensitive areas. By its nature, telecommunications development has the potential to have a significant impact on the environment and raises issues of visual and residential amenity. Mast and site sharing, using existing buildings and structures and a design led approach, disguising equipment where necessary, can help address these concerns. Therefore, planning applications must be accompanied by detailed supplementary information which provides the technical justification for the proposed development including the area of search, details of any consultation undertaken, the proposed structure and measures to minimise its visual impact.

- 1.78 Although the impact from telecommunications equipment on health is a source of public concern, the Government has indicated that the planning system is not the place to determine health safeguards. However, the Council will nevertheless require all applicants to demonstrate their proposed installation complies with the latest national and international guidelines. This currently requires applicants to demonstrate they comply with the International Commission of Non-Ionizing Radiation Protection (ICNIRP) which should take into account the cumulative impact of all operators' equipment located on the mast/site.

POLICY BE10: CONNECTING NEW DEVELOPMENTS TO DIGITAL INFRASTRUCTURE

To support Brentwood's economic growth and productivity now and in the future, all development proposals should:

- a. provision of up to date communications infrastructure should be designed and installed as an integral part of development proposals. As a minimum, all new developments must be served by the fastest available broadband connection, installed on an open access basis. This includes installation of appropriate cabling within dwelling or business units as well as a fully enabled connection of the developed areas to the full main telecommunications network;
- b. ensure that sufficient ducting space for future digital connectivity infrastructure (such as small cell antenna and ducts for cables, that support fixed and mobile connectivity and therefore underpins smart technologies) is provided where appropriate;
- c. support the effective use of the public realm, such as street furniture and bins, to accommodate well-designed and located mobile digital infrastructure;

When installing new and improving existing digital communication infrastructure in new development, proposals should:

- d. identify and plan for the telecommunications network demand and infrastructure needs from first occupation;
- e. include provision for connection to broadband and mobile phone coverage across the site on major developments;
- f. the location and route of new utility services in the vicinity of the highway network or proposed new highway network should engage with the Highway Authority and take into account the Highway Authority's land requirements so as to not impede or add to the cost of the highway mitigation schemes;

- g. ensure the scale, form and massing of the new development does not cause unavoidable interference with existing communications infrastructure in the vicinity. If so, opportunities to mitigate such impact through appropriate design modifications should be progressed including measures for resiting, re-provision or enhancement of any relevant communications infrastructure within the new development;
- h. demonstrate that the siting and design of the installation would not have a detrimental impact upon the visual and residential amenity of neighbouring occupiers, the host building (where relevant), and the appearance and character of the area;
- i. seek opportunities to share existing masts or sites with other providers; and
- j. all digital communication infrastructure should be capable of responding to changes in technology requirements over the period of the development.

Where applicants can demonstrate, through consultation with broadband infrastructure providers, that superfast broadband would not be possible, practical or economically viable:

- k. the developer will ensure that broadband service is made available via an alternative technology provider, such as fixed wireless or radio broadband; and
- l. ducting to all premises that can be accessed by broadband providers in the future, to enable greater access in the future. Or:

The Council will seek developer contribution towards off-site works to enable those properties access to superfast broadband, either via fibre optic cable or wireless technology in the future.

- 1.79 Fast, reliable digital connectivity is essential in today's economy and especially for digital technology and creative sector. The provision for digital infrastructure is important for the functioning of development and should be treated with importance.
- 1.80 Digital connectivity supports smart technologies in terms of the collection, analysis and sharing of data on the performance of the built and natural environment, including for example, water and energy consumption, air quality, noise and congestion. Where it is appropriate and viable to do so, development should be fitted with smart infrastructure, such as sensors, to enable better collection and monitoring of such data. As digital connectivity and the capability of these sensors improves, and their cost falls, more and better data will become available to improve monitoring of planning agreements and impact assessments.

- 1.81 Digital connectivity also supports smart technologies such as Artificial Intelligence (AI), wireless motion sensors and Virtual Reality (VR) which are increasingly used to assist an ageing population and people living with dementia, by reducing isolation, promoting independent living and assisting and complementing care and support.
- 1.82 Provision of high capacity broadband will support businesses and attract investment to Brentwood. It allows residents and businesses to access essential online services, social and commercial networks. It also has the potential to increase opportunities for home-working and remote-working, reducing the demand on travel networks at peak periods. The importance is demonstrated by recent census returns which show that the biggest change in journey to work patterns in the last 20 years has been the increase in people working from home.
- 1.83 The Council aspires to have ultrafast broadband or fastest available broadband at all new employment areas and all new residential developments through fibre to the premises/home (FTTP/H). Fibre to the curb, copper connections to premises and additional ducting for future provision will be considered if developers can show that FTTP/H is not viable or feasible.
- 1.84 It is recognised that at present, in some rural areas of the Borough, fast, reliable broadband is not available as it is uneconomic or unviable to serve small numbers of properties in isolated locations. These places generally have poor access to other facilities and as such would not be expected to provide significant levels of growth. Lack of fast, reliable broadband or lack of scale to deliver broadband may be considered as unsustainable in these locations.
- 1.85 Where new development is proposed in rural areas, investment in superfast reliable broadband will be required, subject to viability. This means that developers should explore all the options, and evidence of this engagement should be submitted with a planning statement.

Transport and Connectivity

Sustainable Transport

- 1.86 Sustainable transport is a key component of sustainable development, for its many benefits go beyond helping the environment. It encourages an active lifestyle, contributes to improving air and noise quality, helps improve public health, reduces cost, provides safer environments for children, increases social interaction in the neighbourhoods and can save travel time by reducing congestion.
- 1.87 Sustainable transport refers to:
- i. Transport strategies that increases accessibility/mobility while minimising traffic volume and overall parking levels, for example allocating development in highly accessible

locations, or providing public transport and a cycling network (Policy BE11 Strategic Transport Infrastructure, Policy BE12 Car-limited development, Policy BE13 Sustainable Means of Travel and Walkable Street, BE14 Sustainable Passenger Transport, BE17 Parking Standards)

- ii. Means of transport which reduces the impact on the environment such as sustainable public transport, low emission vehicles, vehicle charging points and car sharing, as well as non-motorised transport, such as walking and cycling (Policy BE14 Sustainable Passenger Transport, Policy BE15 Electric and Low Emission Vehicle,).
 - iii. Mitigating the transport impact of development (Policy BE16 Mitigating the Transport Impacts of Development)
- 1.88 Many aspects of transport and travel need to be considered, including reducing the need to travel, encouraging walking and cycling to reduce dependency on car travel and to improve public health, making public transport cleaner and more assessible to all users.
- 1.89 It is also important that we consider car ownership and be realistic about the fact that most households in the Borough will own a car. While public transport links into London are good for Brentwood town and other areas along the transport corridors, villages are more remote with less good access. Therefore, it is acknowledged that some level of car travel and parking considerations will remain important for Brentwood as we consider the future.

POLICY BE11: STRATEGIC TRANSPORT INFRASTRUCTURE

Maximising the value of railway connectivity and Elizabeth Line

The Council supports the fast high-capacity transport links into London from Shenfield and the improved linkages from the Elizabeth Line, maximising the potential for an overall improvement to Borough rail services, and mitigating environmental and transport impacts as a consequence of the scheme. This would be achieved through improvements to pedestrian and cycle infrastructure and bus services linking both new and existing developments to the train stations, and introduction of parking controls where needed.

Development in proximity to the railway stations will demonstrate how the schemes connect to the surrounding walking, cycling and public transport links to the station. The proposed schemes must offer direct routes, as well as easy, effective orientation and navigation to the stations.

Improving multimodal integration and/or capacity at train stations

- a. The Council will work with the highway authority, statutory bodies and key stakeholders, including public transport operators, to secure funding for:

- i. improving the public realm and circulation as well as achieving multimodal integration around both Brentwood and Shenfield stations given the potential increased usage and footfall expected to arise from Elizabeth Line;
 - ii. improving capacity of West Horndon station and creating associated multimodal interchange through phases to support new residents and employees; and
 - iii. bus services connecting the developments sites to West Horndon station;
- b. The Council will consider the scope for Park and Ride or Stride schemes where the demand and impacts are assessed within a detailed feasibility study.

Delivering improvements to the highway infrastructure capacity

The Council will continue to work with the highway authority, statutory bodies and key stakeholders to coordinate and, where appropriate, deliver improvements to the highway network and other suitable non-highway measures.

Any significant impacts from the development on the transport network on highway safety must be effectively mitigated to an acceptable degree in line with Policy BE16 Mitigating the Transport Impacts of Development.

Development close to schools and early years & childcare facilities should facilitate an attractive public realm that is safe for children and encourages walking and cycling to address the impacts of school run traffic.

- 1.90 This policy seeks to align strategic transport infrastructure improvements with Brentwood's proposed allocations and economic growth and to contribute to health and well-being whilst protecting the environment. This would be achieved by maximising the value of Elizabeth Line, improving the capacity of the stations and road network, ensuring the main settlements and new development have convenient access to high quality and frequent public transport services which connect to the town centre, main employment centres and ports and airports in the wider region.
- 1.91 Development proposed within this plan will only be deliverable and supported if suitable transport measures and investment are led, coordinated and, where appropriate, delivered by Brentwood Borough Council and strategic partners. Development should seek to enhance transport, particularly public transport, and wider connectivity between new and existing employment areas.

Maximising the value of railway connectivity and Elizabeth Line

- 1.92 Previously known as Crossrail, the new Elizabeth Line is a 118km railway under development crossing through the heart of London, enabling access between Reading and Heathrow in the west, through central London to Shenfield and Abbey Wood in the east. The full route is expected to be fully operational by December 2019. The arrival of Elizabeth Line will provide an improved and more frequent service to Brentwood's residents and visitors thus benefiting businesses and facilitating growth. The scheme will improve the station environment at both Brentwood and Shenfield stations, specifically in terms of non-motorised users and will provide enhanced public transport access, with new forecourt and pedestrian crossing facilities being installed at Brentwood. At Shenfield, additional bus facilities will be installed to cope with an increase in demand for public transport usage.
- 1.93 It is expected that the introduction of this new railway will have both positive impacts, as a result of additional rail trips, and potentially negative impacts, with potential for increased travel by car to access the stations (Transport Assessment, 2018). Early passenger demand modelling for Crossrail indicated that passenger growth at Shenfield and Brentwood was likely to be in the region of 10%, this would indicate that there would be minimal impact on the operation of the local highway networks surrounding these stations. However, there will be a need to monitor and review the situation once the services are operational. Any impacts identified should be addressed through the implementation and promotion of sustainable transport measures, for example the provision for non-car modes and the implementation of parking restrictions and pedestrian wayfinding system.
- 1.94 The proximity of new housing developments close to railway stations can provide the opportunity to improve cycling and walking infrastructure for shorter distance trips, to access rail services. Improving links to Brentwood and Shenfield stations will benefit both existing population as well as the new Local Plan developments within easy access of the stations. Proposed allocations and future development near Brentwood and Shenfield stations are required to demonstrate that the planning and design for movement connect well to the surrounding walking, cycling and public transport links to the station, and give priority to pedestrians and cyclists.

Improvements to the train stations

- 1.95 In order to support a transit-oriented growth strategy and support projected travel demands from future development as well as provide the opportunity for non-motorist travel, it is important to achieve integration of transport modes. This should support regional trips by public transport and reduce pressure on the road network at the critical peak period. The Council will encourage improvements to the public realm surrounding existing train stations and look to improve access, interchange facilities, installation of wayfinding signs and introduce parking control where appropriate. Park and Ride or Stride schemes to improve access to the stations will be considered subject to a detailed feasibility study.
- 1.96 The railway stations in the Borough have potentials to assist in providing additional benefits to sustainable travel:
- d. Brentwood station: located on the Great Eastern Mainline, Brentwood station is served by TfL Rail services operating between Shenfield and London Liverpool Street and Abellio Greater Anglia services operating between Southend Victoria and London. The emphasis on accessibility to both Shenfield and Brentwood stations will be on

sustainable travel as a means of access, with improvements to pedestrian and cycle infrastructure and bus services, linking both new and existing developments near the stations, and on introducing new parking controls where needed to discourage parking around the stations, therefore reducing car travel.

- e. Shenfield station: also located on the Great Eastern Mainline, Shenfield station is served by TfL Rail services to London Victoria and Abellio Greater Anglia to Southend Victoria, Colchester Town, Ipswich, Braintree and Clacton-on-Sea. From late 2018 it will be the terminus of the Elizabeth Line which will run between Reading and Heathrow Airport in the west through London. During 2014 JMP Associates undertook a station parking study for Shenfield prior to the development of the Elizabeth line. From the Rail User Survey carried out as part of the study, the study demonstrates that with the introduction of better bus services to the station, a reduction in the number of people who park at Shenfield who live in the vicinity as well as from any future Local Plan developments in the region could be witnessed, reducing overall traffic on the local network. As mentioned above, enhancement to Shenfield station would centre around improving pedestrian and cycle infrastructure and bus services and where necessary, parking controls.
- f. West Horndon station: West Horndon station is on the London, Tilbury and Southend Railway line and is served by C2C with two trains per hour to London Fenchurch Street and Shoeburyness. It is currently identified that parking capacity is fully utilised most weekdays for commuters into London from the A127/A13 corridors. The location of a number of the local plan development sites will mean that West Horndon Station will play an important role in future transport provision. The Transport Assessment (PBA, 2018) proposed that over the lifetime of this Plan the improvements to the station, bus and cycle infrastructure and interchange facilities are phased to create a new integrated transport hub. An increased capacity on the existing train service will be central to the new cycling, walking and bus movements of the new residents and employees. To ensure the new development will provide convenient access to the future interchange at West Horndon, the Transport Assessment proposed that interim bus service(s) connecting the developments sites to the interchange should be built into the development agreements to be funded for a minimum of 5 years. This should allow time for enough customer demand for a commercial operator to take on the routes. This is particularly the case with Dunton Hills where new opportunities will exist.
- g. Ingatestone station: Ingatestone railway station is on the Great Eastern Main Line, currently operated by Abellio Greater Anglia. New development should seek to provide new or improve links and access to Ingatestone Station.

Delivering improvements to the highway infrastructure capacity

- 1.97 As the backbone of our transport system, roads keep the population connected and the economy flowing. In light of planned development, it is important to grasp the opportunity to transform our roads and the experience of driving on them, whilst also addressing strategic imperatives such as economic growth and climate change.
- 1.98 It should be noted, however, that providing additional highway capacity will only have a short-term impact and may be quickly taken up by suppressed traffic. Therefore, investment in providing alternatives is important. Details on non-highway related mitigation measures

and likely behavioural change measures considered to assist in alleviating pressures on the highway network be found in the Transport Assessment (PBA, 2018), and under Policy BE16 Mitigating the Transport Impacts of Development. These measures are also embedded in other policies in this Plan.

- 1.99 The Council is working with Associations of South Essex Local Authorities (ASELA) to prepare a statutory Joint Strategic Plan (JSP) which will identify ways to transform transport connectivity, among other required work to deliver growth. This work will inform public transport services needed to follow suit if the wider development needs of south east England are to be sustainably provided.
- 1.100 In Brentwood, the strategic highway infrastructure includes:
- i. the A12 which connects the market town and major settlements in central Brentwood Borough to London and wider region, providing access to services, jobs and recreation;
 - ii. the A127 which travels through the south of Brentwood Borough and connects it to London, Basildon, Rochford, Southend, Southend Airport and surrounding employment areas. The A127 corridor is a vitally important primary route for the south of Essex;
 - iii. the M25 in the west which connects Brentwood Borough to London and Stansted Airport;
 - iv. and associated key junctions.
- 1.101 The Transport Assessment (PBA, 2018) assessed how the highway network within the Borough copes at a strategic level as a result of the new Local Plan Development and committed developments within adjacent local authorities that would likely have an impact on Brentwood Borough highways. This work identified a number of junctions that may require mitigation as well as a number of non-highway²² related mitigation measures. The results of the modelling and junction assessments highlight the need to continue to monitor throughout the Local Plan period to identify any additional impact from other schemes on the highway network in Brentwood, such as the Lower Thames Crossing Project, the A127 study and any highway effect from the opening of the Elizabeth Line. Since the level of growth planned along the A127 and A12 are reliant on new and improved strategic infrastructure of regional and national importance (including the Lower Thames Crossing), the Council will continue to work with the highway authority (Essex County Council), statutory bodies (including Highways England), the Essex Heart and Haven Strategic Transport Boards²³ and developers to secure the mitigation measures to the highways and related junctions to deliver growth. The impact of individual access junctions for individual sites would be expected to be undertaken by promoters of individual sites.

²² More details on non-highway and behavioural change measures can be found in the Transport Assessment (PBA, 2018), and under Policy BE16 Mitigating the Transport Impacts of Development.

²³ The Heart and Haven Strategic Transport Boards was established by ECC with the primary roles to determine infrastructure priorities, encourage partnership working on transport and growth issues, and fulfil the duty to co-operate on transport planning and delivery in the context of Local and National Plans.

1.102 It is recognised that existing mitigation undertaken by third parties are being considered and will assist in improving capacity of the highway network in the Borough. These include:

- i. A127/A128: several studies, led by Essex County Council, have been progressing on the A127 corridor between Southend-on-Sea in the East to the M25 in the west, the final section of this road is within Brentwood Borough. Within the A127 Corridor for Growth study²⁴ there are individual pieces of work currently at various stages of planning and development, many of which are focussed on interchange capacity and/or safety improvements. Continued joint working with ECC and other neighbouring authorities will be important, so any outcomes from this study can feed through to the South Brentwood Growth Corridor Masterplan;
- ii. M25 Junction 28: Highways England are currently undertaking work to develop improvements at M25 Junction 28 ²⁵. Further engagement will be required with Highways England on this scheme;
- iii. M25 Junction 29: mitigation measures at this junction are being considered with the aim to improve the junction's operation with the introduction of the Brentwood Enterprise Park. Proposals for the Lower Thames Crossing route that impact M25 Junction 29 will need further consideration as part of these overall aims.

1.103 Brentwood high schools and some primary schools are very attractive not only to residents within the Borough, but also for many children from the surrounding Essex and London authorities. The five high schools located in the central area of Brentwood Borough generate a significant volume of parents dropping off and picking up their children. The impacts of the children growth and school related trips should be into consideration as a part of mitigation measures to the highway network. Development in proximity to schools and education facilities should be designed with priority given to safety and convenience of pupil's walking, cycling to school, as well as other measures that can address the impacts of school run traffic.

1.104 For Central Brentwood Growth Corridor, the Council is considering a sustainable transport strategy to help address traffic and associated air quality issues, based on non-highway measures identified in the Transport Assessment (PBA, 2018), options including but not limited to School Clear Zones and Low Emission Zone.

- i. The School Clear Zones concepts seeks to remove school related trips from the town centre and to encourage greater use of non-car modes for such trips. In these zones, vehicles will be restricted from stopping, parking for drop off during AM/PM peak hour. The pupils will be encouraged to walk or cycle from drop off zones to relieve pressure on the highway network. The measure has the added benefit of encouraging more physical activity for children their parents, and all other users to walk or cycle from a reasonable distance. In addition, it would help improve air quality and address illegal car parking affecting residents living close to the schools. The Council intends to continue exploring the potential and deliverability of this concept.

²⁴ <https://www.essexhighways.org/uploads/docs/nevendon-a127-corridor-for-growth-paper2.pdf>

²⁵ <https://highwaysengland.co.uk/projects/m25-junction-28-improvements/>

- ii. A Low Emission Zone is a defined area where access by polluting vehicles is restricted or deterred with the aim of improving the air quality. This may favour vehicles such as alternative fuel vehicles, electric vehicles, or zero-emission vehicles. Currently feasibility analysis is being considered for Low Emission Zone as part of a long-term assessment (Brentwood IDP, 2018).
 - iii. Other measures and behavioural change measures are detailed under Policy BE16, and can also be found in the Transport Assessment (2018).
- 1.105 For South Brentwood Growth Corridor, there is a recognition that provision of sustainable transport in this area is poor. To mitigate the impact of future development on the highway network in the South, the Council will work proactively with developers, key stakeholders and service providers to implement new area specific sustainable transport measures, which would seek to mitigate transport impacts of sites on the highway infrastructure, improve bus links across the area and improve capacity of West Horndon station. The measures would also seek to reduce the impacts of northward movements into central Brentwood. Where northward movement happens, they should be undertaken by electric car club vehicles, electric bikes or bus.
- 1.106 It is considered that the preferred route of the Lower Thames Crossing, developed by Highways England, will have impacts on opportunities as well as cumulative impact on the local and strategic transport network. The Lower Thames Crossing is a proposed new road crossing of the River Thames which will connect the counties of Essex (north) and Kent (south). The planned route is expected to run from the M25 near North Ockendon, cross the A13 at Orsett before crossing under the Thames east of Tilbury and Gravesend. A new link road will then take traffic to the A2 near Shorne, close to where the route becomes the M2. At this stage, information on the impact of this scheme on the highway network in Brentwood is limited. The impact of the scheme on travel in the borough will need to be reviewed as the scheme progresses, in particular if delivery of the scheme comes forward during the plan period.
- 1.107 The Lower Thames Crossing Statutory Consultation commenced on October 10th 2018²⁶, the forecast reporting released as part of the consultation evidence does not provide detailed analysis of flow changes on the A128 and A127; however, the non-technical summary identifies a reduction in traffic on these links, demonstrating that this is likely to have a beneficial effect in the operation at these junctions. Currently, Highways England anticipate that, subject to funding and planning consent, the scheme would open in 2027, within the Plan Period. However, there is still uncertainty regarding the timescales for the delivery of this scheme (Transport Assessment 2018, PBA).

POLICY BE12: CAR-LIMITED DEVELOPMENT

The Council supports car-limited development proposals in appropriate locations that are, or are planned to be, well-connected by public transport and

²⁶ <https://highwaysengland.citizenspace.com/ltc/consultation/>

have good accessibility through walking and cycling. Car-limited development are acceptable when all of the following are met:

- a. where there is safe, easily walkable and cyclable access to the Town Centre or District Shopping Centres or major employment sites;
- b. where there is excellent access to public transport connectivity; and
- c. where the car- limited status of the development can realistically be enforced by planning condition, planning obligations, on-street parking controls or other means such as car clubs.

- 1.108 While the aim will be to offer a choice of transport, reducing dependency on the car will reduce congestion and pollution and improve resilience in the face of future fuel shortages or price rises. The Government's Active Travel Strategy (Dept of Health and Dept for Transport, 2010) aims to get more people walking and cycling in recognition of the many benefits these bring. As the Strategy notes, walking or cycling can be quicker and cheaper than driving or taking public transport for many short trips and are an easy way to become more physically active thereby improving health and wellbeing.
- 1.109 The dominance of vehicles on streets is a significant barrier to walking and cycling and reduces the appeal of streets as public places. When properly implemented in appropriate locations, car-limited development could have significant benefits including:
- a) accommodating more dwellings on a given site, without overdeveloping;
 - b) leaving more space for landscaping and green space;
 - c) safer streets for children's play, and more social interaction;
 - d) reduced car dependency, while supporting walking, cycling, public transport and local car clubs;
 - e) less traffic congestion and pollution associated with the new development.
- 1.110 Larger car-limited developments will be encouraged to incorporate a car club, which can be an attractive alternative to private car ownership and boost the attractiveness of car-limited housing.

POLICY BE13: SUSTAINABLE MEANS OF TRAVEL AND WALKABLE STREETS

Development will be supported where it demonstrates that prioritisation of access to, from, and within a development is by walking, cycling and public transport, and is accessible for all. This is achieved by:

- a. linking the development or providing new links that will add to the existing surrounding walking, cycling and public transport networks;
- b. giving priority to pedestrian and cycle movement and public transport networks above the use of the private car so these are the best and safest means of moving around;
- c. improve areas where public transport, pedestrian and cycle movement is difficult or dangerous;
- d. safeguarding existing and proposed routes for walking, cycling, and public transport, from development that would prejudice their continued use and/or development. Funding for high quality physical provision of these routes will be required, both within and adjacent to the proposed developments;
- e. any development requiring a new road or road access should accord with the following:
 - i. be designed to give priority to the needs and safety of pedestrians and cyclists, to facilitate the change between different transport modes, and make cycling, walking and public transport the obvious choice;
 - ii. restricts general motor traffic through design where appropriate;
 - iii. discourage speeding through design;
 - iv. discourage inappropriate car-based links within the network, but encourages non-car based links;
 - v. minimises additional car traffic in the surrounding area; and
 - vi. provide safe and appropriate access to the adjoining road, pedestrian and cycle networks.

- 1.111 Securing public transport improvements and better provision for walking and cycling would reduce pollution, make it safer and easier for people to travel to jobs and services and lead to better health, less congestion and more pleasant streets.

- 1.112 This Policy seeks to encourage people to make sustainable travel choices by improving choices and making development easily accessible by different modes of transport, especially walking, cycling and public transport. An important policy tool to achieve this is the modal hierarchy. All major development should follow the modal hierarchy by providing access for all of the following (most preferable first, least preferable last):
- a) Walking and providing access for all, including people with mobility impairment
 - b) Cycling
 - c) Public transport
 - d) Powered two wheelers
 - e) Commercial vehicles and taxis
 - f) Car sharing
 - g) Electric and low emission vehicles
 - h) Private cars.
- 1.113 Streets account for a major part of public spaces; high quality streets are therefore fundamental to the character and efficient functioning of a place and play a fundamental role in moving people around safely, improving public realm and providing spaces for people to come together. New major development should create permeable, accessible, inclusive and multifunctional streets that promotes active lifestyle and integrates different modes of transport in line with Policy BE30 Creating Successful Places. Barriers to walking should be addressed in development proposals, to ensure that walking is promoted and that street conditions, especially safety/security and accessibility for disabled people, are enhanced. Walking networks and facilities in and around all new developments should be direct, safe, attractive, accessible and enjoyable.
- 1.114 Cycling is a space efficient mode compared to cars so making streets attractive for cycling can bring benefits to all road users while also improving the experience of living, working and getting around. Although further consultation will be required, once finalised the Brentwood Cycling Action Plan (2018)²⁷ can:
- a) identify how cycling levels can be increased in the Borough;
 - b) enable any funding for new cycling schemes in Brentwood to be prioritised;
 - c) create a usable, high-quality cycle network that connects residential areas with key employment locations, rail stations and town centres; and
 - d) create opportunities to increase recreational cycling in Brentwood.
- 1.115 Cycling will be promoted through the provision of improved cycle parking and other facilities and new cycle routes as part of highway infrastructure improvements/traffic management

²⁷ <https://www.essexhighways.org/uploads/files/Getting%20Around/Cycling/Brentwood-Borough-Cycle-Action-Plan.pdf>

measures and, where appropriate, in association with planning permission for new development. Development should facilitate and encourage cycling to reduce car dependency and the health problems it creates.

- 1.116 When providing for cycle parking, cycle parking areas should allow easy access for occupiers and their visitors, and provide facilities for all, including disabled cyclists. This could include identifying and reserving specific spaces which provide step-free cycle parking and opportunities for people using adapted cycles, as well as providing facilities for other non-standard cycles such as tricycles, cargo bicycles and bicycles with trailers. Space for folding bicycles should be provided as well as space for conventional bikes to cater for rail commuters. However, space for folding bicycles is not an acceptable alternative to conventional cycle parking as these are less popular in some areas, tend to be less affordable and present difficulties for some users. Surface level parking is preferable to stacked parking which may be difficult for some people to use. Visitor parking should be quickly and easily accessible to front entrances of buildings and not require cyclists to visit parts of a site restricted to occupiers only.
- 1.117 The Council will work with partners and stakeholders to facilitate and promote sustainable transport links from new development to key destinations and the wider network. This include new or improved infrastructure, services and promotion to support walking, cycling and public transport, provision of charging points for electric vehicles. The Sustainable Modes of Travel Strategy (SMOTS) produced by ECC provides a framework to co-ordinate the provision of services and infrastructure to achieve its objectives.
- 1.118 The Council strongly supports contributions to and provision for car clubs at new developments to help reduce the need for private car parking.

POLICY BE14: SUSTAINABLE PASSENGER TRANSPORT

The Council will facilitate and support sustainable passenger transport services operating in Brentwood to help deliver vision of the Local Plan.

Development proposals should protect and enhance existing passenger transport and their capacity.

Community facilities, schools, and specialist older persons housing, where reasonable and proportionate, should provide pick up and drop off facilities for passenger transport close to the principal entrance suitable for minibuses, taxis (with appropriate kerbs), and/or ambulances.

- 1.119 Passenger transport, including bus, school bus, rail, taxis and private hire vehicles play a significant role in enabling access to facilities and services across the Borough and to

destinations in other authorities areas. They also provide people with travel choices and can contribute to addressing congestion and offsetting the environmental impacts of travel.

- 1.120 The Council, in consultation with relevant partners, will seek the retention of existing bus and rail services and, where possible, encourage improved and new services. Support will be given to the refurbishment of rail station buildings and other improvements in facilities for public transport users including transport interchange improvements.
- 1.121 Brentwood and the surrounding area are served by multiple bus operators the most frequent are that of First Bus, Stagecoach and Ensign Bus. There is potential in future, with the pattern of development, to provide improved bus services linking key residential areas, both existing and those proposed through the local plan, employment and railway stations. The Transport Assessment (PBA, 2018) highlights that there is an opportunity to provide services that will link Dunton Hills Garden Village (and Basildon), West Horndon Station, Brentwood Enterprise Park, Childerditch Business Park and Brentwood (including the station), which if providing a high quality express service between these key origins and destinations would provide a realistic alternative to the private car.
- 1.122 The Council would support the commencement of passenger transport in large scale developments at the earliest opportunity, which should be considered to be the responsibility of the developer. The Council will seek to secure additional passenger transport facilities and service funding to enable the existing routes to be enhanced in terms of frequency, quality, connectivity and coverage where appropriate.

POLICY BE15: ELECTRIC AND LOW EMISSION VEHICLE

The Council will seek infrastructure for electric and low emission vehicle at major new developments.

This could include, but is not limited to, electric vehicle charging / plug-in points or the infrastructure required to provide this in the future.

- 1.123 According to the Brentwood Renewable Energy Study (2014), transport emissions in Brentwood are higher than the national average, due to increased car ownership and access to vehicles. Electric or other low emission vehicles will help reduce pollution, climate change impacts, oil use from the transport sector while improving energy independence, air and noise quality, thus well-being of Brentwood residents.

- 1.124 The development of a robust infrastructure network is widely considered a key requirement for a large-scale transition to electromobility. Research²⁸ has found that the availability of public charging is generally linked with electric vehicle uptake as providing charging stations can help meet charging demand and increase electric vehicle consumer confidence. Highways England has plans to install charging infrastructure every 20 miles along the major road network as part of its Road Investment Strategy²⁹
- 1.125 The Council may seek infrastructure for electric and low emission vehicle where it is appropriate and viable. This could be in the form of public charging infrastructure or make-ready infrastructure for charging stations. The design and operation of such infrastructure should follow best practice so that their operation would not undermine the quality of public realm nor refract from the shift towards active travel.
- 1.126 In addition, the provision of private charging infrastructure at home and at workplace will be encouraged:
- i. Home charging stations could help to make electric vehicles more accessible. In multi-unit dwellings, where residents frequently do not have dedicated parking spots, installation of charging infrastructure in shared parking facilities or public curbside charging stations could be sought. The UK government's Office for Low Emission Vehicles currently offers incentive programs towards the up-front cost of each electric vehicle charge point purchased and installed to defray the added costs of charging infrastructure at home³⁰.
 - ii. Workplace charging can serve as the primary charging opportunity for drivers without a dedicated home charge point, allowing increased flexibility for drivers who commute with their electric vehicle. Since cars charging at a workplace tend to be plugged in for many hours during the middle of the day, it is an ideal setting for smart charging programs and could further the integration between electric vehicles and daytime renewable energy, especially solar. Pilots projects in the UK³¹ and elsewhere³² have shown that people are much more likely to switch to electric vehicles if there is access to charging infrastructure at their workplace. The UK government's Office for Low Emission Vehicles offers financial support³³ towards the cost of installing EV charging to encourage organisations to install electric vehicle charging facilities at their workplace.

²⁸ Hall D., Lutsy N (2017) Emerging Best Practices for Electric Vehicle Charging Infrastructure, the International Council on Clean Transportation. Available at: https://www.theicct.org/sites/default/files/publications/EV-charging-best-practices_ICCT-white-paper_04102017_vF.pdf

²⁹ Jones A. (2015) Off Road Trials for 'Electric Highways' Technology, Highways England. Available at: www.gov.uk/government/news/off-road-trials-for-electrichighways-technology

³⁰ Office for Low Emission Vehicles (OLEV) (2016). Electric Vehicle Homecharge Scheme Guidance for Customers: Version 2.1. UK Department for Transportation. Available at: <https://www.gov.uk/government/publications/electric-vehicle-homecharge-scheme-guidance-for-customers-version-22>

³¹ <https://www.businessgreen.com/bg/news/3007028/could-workplace-charge-points-trigger-electric-vehicle-demand>

³² Olexsak, S. (2014) Survey Says: Workplace Charging Is Growing in Popularity and Impact, U.S. Department of Energy. Available at: <https://www.energy.gov/eere/articles/survey-says-workplace-charging-growing-popularity-and-impact>

³³ Office for Low Emission Vehicles (OLEV) (2016) Workplace Charging Scheme Guidance for Applicants, Installers and Manufacturers, UK Department for Transportation. Available at: <https://www.gov.uk/government/publications/workplace-charging-scheme-guidance-for-applicants-installers-and-manufacturers>

POLICY BE16: MITIGATING THE TRANSPORT IMPACTS OF DEVELOPMENT

Developments will only be permitted where they do not have an unacceptable transport impact and/or any significant impacts from the development on the transport network (in terms of capacity and congestion) and on highway safety can be effectively mitigated to an acceptable degree.

Therefore, new development will require:

- a. sufficient information to be supplied to assess the likely impact of development. This should take the form of Travel Plans, Transport Assessments and/or Statements in accordance with the thresholds and detailed requirements for each land use category set in the latest Essex County Council's Development Management Policies;
- b. reasonable and proportionate financial contributions/mitigation measures where necessary to mitigate the transport impact of the development to an acceptable degree. This could include investment in infrastructure, services, Low Emission Zone, or behavioural change measures to encourage the use of sustainable modes of transport. Such measures should be provided to meet the first or early occupation of a site in order to influence travel behaviour from the outset.

This Policy should be read in conjunction with Policy BE11 Strategic Transport Infrastructure, BE12 Car-limited Development, BE13 Sustainable Means of Travel and Walkable Streets and BE14 Sustainable Passenger Transport.

- 1.127 Traffic congestion and road capacity remain key issues on many of the Borough's roads and the need to mitigate their impacts and to push for modal shift remains imperative, especially as growth in and around Brentwood continues.
- 1.128 Joint working will be established with Highways England, Essex County Council (highways authority), developers and all relevant partners to identify necessary mitigations at key junctions, to consider the cumulative impact of growth within the Borough over the Plan period, and to consider the wider planned growth on the local and strategic route network.
- 1.129 Development resulting in an unacceptable impact on highway safety, or significant and harmful residual cumulative impacts on the road network will be prevented or refused on highways grounds, unless any impact will be effectively mitigated to an acceptable degree, in line with the NPPF 2018.
- 1.130 Developments should also provide adequate provision for servicing and public service vehicles.

- 1.131 As noted earlier in this Chapter, providing physical improvements to the highway will only have a short-term impact therefore it is important to invest in long term alternatives. The Council will work with developers and service providers to consider potential sustainable transport measures that could assist in reducing the impact of developments on the overall road network. The Transport Assessment (PBA, 2018) identifies a number of non-highway mitigation measures that could be implemented in Brentwood Borough; feasibility analysis for some of these measures are being considered in the in the Brentwood IDP as part of a long term assessment. These include:
- i. School Clear Zone;
 - ii. Park, Ride and Stride;
 - iii. 'Quietway' cycle routes;
 - iv. Low Emission Zone;
 - v. Banning all large freight vehicle from stopping deliveries within the Central Brentwood zone and A128 corridor during AM/PM peaks;
 - vi. Car-limited development at appropriate locations;
 - vii. Pedestrian wayfinding system;
 - viii. Multiple service app making access to smart car hire/ community buses/ booking bikes/ etc. easier;
 - ix. Encourage clean vehicles and introduce electrical parking points to encourage use of such vehicles and plan and deliver other IT infrastructure redundancy to allow future implementation of emerging SMART systems;
 - x. Multi-modal integration at rail stations.
- 1.132 Aims to reduce pollution levels from transport can also be linked to Policies BE36: Green and Blue Infrastructure; NE06: Air Quality, and SP03: Health Impact Assessments.

Managing Parking

- 1.133 The Council will continue to promote lower levels of private car parking to help achieve modal shift, particularly for non-residential developments where more sustainable transport alternatives such as walking, cycling and public transport exist. This will be particularly important in the Town Centre, where the transport strategy is to increase access without a net increase in overall parking levels.
- 1.134 Car parking standards are an important means of managing traffic levels in and around a development, especially when combined with measures to increase access to transport alternatives to the private car.

POLICY BE17: PARKING STANDARDS

The Council will refer developers to the latest Parking Standards adopted by Brentwood Borough Council. Schemes should comply with design standards and provision levels for uses and transport modes specified.

In the following circumstances, the parking standards may be flexible to minimise pressure on land and encourage alternative modes of transport:

- a. Office developments in urban areas that are well-connected by public transport and have good accessibility through walking and cycling;
- b. Retail and mixed-use development in the Town Centre, District Shopping Centres and Local Centres that has access to shared car parks with different facilities/users at different times; and
- c. Commuter parking provision at train stations.

Proposals which provide below these standards should be supported by evidence detailing the local circumstances that justify deviation from the standard.

- 1.135 Developers should account for the following when proposing the level of car parking for a site:
- a. the location of the development, in terms of whether the site has convenient walkability and cyclability to the Town Centre, district shopping centres, major employment centres, and whether or not it has high public transport accessibility;
 - b. the type of development (fringe site, infill site, etc.) - infill sites are much more likely to be located in areas with existing travel patterns, behaviours and existing controls, and may be less flexible;
 - c. the type of residence (houses, flats, etc.) - houses tend to have higher car ownership than flats, even if they have the same number of habitable rooms;
 - d. local car ownership levels;
 - e. for developments requiring a Transport Assessment, it should be demonstrated that the level of parking proposed is consistent with the recommendations of this Transport Assessment;
 - f. the need to ensure an adequate provision of spaces for charging plug-in and other ultra-low emission vehicles. Electric vehicle charging points or the infrastructure to

ensure their future provision should be provided within a development where reasonable and proportionate; and

- g. adequate provision should be made for efficient deliveries and servicing.
- 1.136 Brentwood Borough Council adopted the Essex Parking Standards as a Supplementary Planning Document (SPD) in 2011 and will expect these standards to apply until such time as they are revoked or superseded by other standards. This document sets out a range of standards to be applied depending on the proposed use of new development, such as minimum parking for residential development to address issues of on-street parking and maximum standards for parking in non-residential developments in order to encourage more sustainable transport methods. This document is subject to revision by Essex County Council in light of changes made to the NPPF.
- 1.137 Parking associated with offices has the potential to generate car travel in the morning and evening peaks when streets are the most congested. This makes bus travel less reliable and active travel less attractive and road network more congested in some parts of the Borough. Office parking also has the potential to induce car dependence even where alternatives to the car exist. Census 2011 origin and destination statistics indicate that workers commuting to Brentwood from the surrounding local authorities mainly commute by car. Reduced office parking provision where alternative choices are convenient and available can facilitate higher-density development and support the creation of mixed and vibrant places that are designed for people rather than vehicles. Applicants should ensure that the use of non-car modes are provided for where possible.
- 1.138 It is important that local retail and leisure sector businesses are provided with suitable facilities to continue to thrive. Current parking provision in Brentwood Town Centre, District Shopping Centres and Local Centres often have negative visual impacts yet does not always meet parking space demands of shoppers and visitors. The Council seeks to improve the quality of parking so that it is convenient, safe and secure, alongside measures to promote accessibility for pedestrians and cyclists.
- 1.139 The shared parking provision in the Town Centre and District Shopping Centres is encouraged to allow visitors, shoppers and commuters to share parking facilities at different times of the day and week and to relieve the current high parking demands in these areas. Proposals to provide residential development on sites that are currently providing car parking facilities will also be encouraged, for this would help minimise the number and length of journeys needed for employment, shopping, leisure, and other activities.
- 1.140 Free commuter parking could contribute to congestion and pollution, it also undermines public transport, including park-and-ride and rural bus services. Reducing free commuter parking will therefore reduce congestion and pollution and create demand for public transport. The net effect will be to start a virtuous circle of more convenient and reliable bus services attracting more passengers, creating demand for an expansion in services.
- 1.141 The quantum of any parking provision, as well as its design and implementation, should have regard to the need to promote active modes and public transport use. The operation of car and cycle parking and the associated public realm should be designed and managed in a way that it would not have negative transport, visual and safety impacts on the surrounding areas, and that under-utilised parking space is converted to other uses such as additional

cycle parking, amenity space or Green and Blue Infrastructure. Parking provision should be flexible for different users and adaptable to future re-purposing in the context of changing requirements, including technological change. Applicants should refer to best practice and guidance on the design, layout, landscaping and lighting of parking as set out in the Essex Design Guide, Brentwood Town Centre Design Guide and British Parking Association.

Housing

Housing Mix

- 1.142 It is important that new housing development addresses local needs and contributes to the creation of mixed and balanced communities. A core planning principle in the NPPF is that every effort should be made objectively to identify and then meet the housing needs of an area. This means providing sufficient good-quality housing of the right types, mix, sizes, and tenure in the right places, which will be attractive to and meet the identified needs of different groups in society, including families with children, first-time buyers, older people, people with disabilities, and people wishing to build their own homes. Well designed housing should also be accessible and adaptable to meet people's changing needs and helping to sustain independent living.
- 1.143 The amount and distribution of housing to be delivered in the Borough over the Plan period is established through Policy SP04: Managing Growth. Policy XX: Housing Mix seeks to ensure that residential development proposals delivering this housing do so in a way that contributes to the rebalancing of the housing stock to ensure it better reflects the identified needs and demands for housing of the existing and future communities of the Borough.

POLICY BE18: HOUSING MIX

. All new development should deliver an inclusive, accessible environment throughout.

- a. On residential development proposals of 10 or more (net) additional dwellings the Council will require:
 - i. an appropriate mix of dwelling types, sizes and tenures to meet the identified housing needs in the Borough as set out in the Strategic Housing Market Assessment or any similar evidence for market and affordable units (such as the Council's Housing Strategy), to provide choice, and contribute towards the creation of sustainable, balanced and inclusive communities; and

- ii. each dwelling to be constructed to meet requirement M4(2) accessible and adaptable dwellings, unless it is built in line with M4(3) wheelchair adaptable dwellings, of the Building Regulations 2015, or subsequent government standard.
- b. On developments of 60 or more (net) dwellings the Council will require all of the above, and:
 - i. a minimum of 5% of new affordable dwellings should be built to meet requirement M4(3) wheelchair accessible dwellings of the Building Regulations 2015, or subsequent government standard.
- c. On development sites of 500 or more dwellings the Council will require all of the above, and:
 - i. a minimum of 5% self-build homes which can include custom housebuilding; and
 - ii. provision for Specialist Accommodation taking account of local housing need in accordance with the criteria set out in Policy BE21: Specialist Accommodation.

Where a development site has been divided into parts, or is being delivered in phases, the area to be used for determining whether this policy applies will be the whole original site.

The inclusion of self-build and custom build homes and Specialist Residential Accommodation on smaller sites will also be encouraged.

- 1.144 The NPPF requires local planning authorities to plan for a mix of housing based on current and future demographic trends, market trends and the needs of different groups in the community, including, but not limited to, those who require affordable housing, families with children, older people, people with disabilities, travellers, people who rent their homes and people wishing to commission or build their own homes. Across the Borough there is a need to rebalance the housing market to provide a range of housing that will meet the changing needs of communities.
- 1.145 The Council's Strategic Housing Market Assessment (SHMA) Part 2 (2016) provides a detailed assessment of the housing required to meet existing and future needs across the Borough. Proposals should respond to other up-to-date and relevant local evidence where available, such as the Council's Housing Strategy.
- 1.146 The Council's latest SHMA indicates that the greatest need for Market housing is two-bedroom units, closely followed by a need for family housing consisting of three or more bedrooms. Figure 7.1 below will be used to inform negotiations between the Council and

developers to determine the appropriate mix of housing. The final mix of housing/types will be subject to negotiation with the applicant.

- 1.147 Census data³⁴ indicates an above average proportion of the Borough's households contain older persons, at 24.1% compared to 22.3% regionally and 20.5% nationally. The proportion of the Borough's population living beyond 65 years of age is set to rise during the plan period, from 14,564 residents in 2013 to 21,093 residents in 2033, a rise of 44.8%, meaning a significant proportion of projected households are likely to have a household representative aged 65 or over.
- 1.148 The Government position is that older persons should remain at home rather than enter use class C2 residential facilities where possible. This combination of factors shows the need for homes that are adapted and further adaptable for a less mobile population. It is expected that all dwellings on major residential schemes achieve requirement M4(2) accessible and adaptable dwellings, or M4(3) wheelchair adaptable dwellings of the Building Regulations 2015.
- 1.149 Government research³⁵ shows that, based on English Partnerships figures from 2011-2012, nearly 30% of households have at least one person with a long-term illness and over 3% have one or more wheelchair user.
- 1.150 While nationally 3.3% of households have a wheelchair user, for households living in affordable housing this rises to 7.1%. The rates are also higher for older households, and given that the number of older person households in the borough is set to increase over the period to 2033, the Council seeks to ensure 5% of affordable housing development on proposals of 60 or more dwellings achieves requirement M4(3) wheelchair accessible dwellings.

Size of new Market housing required up to 2033	
Dwelling Size	Indicative Mix
One bedroom	3.8%
Two bedrooms	35.8%
Three bedrooms	30.2%
Four or more bedrooms	30.2%
Total	100%

³⁴ As referenced within the Strategic Housing Market Assessment (SHMA) Part 2 (2016)

³⁵ Guide to available disability data DCLG

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/416475/150323_Guide_to_disability_data___final_web_version.pdf

Figure 3: Indicative size guide for Market housing

- 1.151 The development of self-build properties by individuals or community groups (including Community Land Trusts) can also contribute to meeting the need for additional housing within the district, and provide a more diverse housing stock. Self-build plots are plots of land which are made available for individuals to design and build their own home whereas custom build plots are provided by site developers to the specification of individuals which may or may not follow a basic design pattern.
- 1.152 To assist in the delivery of a choice of accommodation, the provision of self and custom housebuilding plots are required to be made available on strategic residential schemes of 500 dwellings or more. A figure of 5% of the total dwelling numbers shall be made available for sale as self or custom housebuilding plots whilst there is an identified need on the Council's Self-build and Custom Housebuilding Register. The Council will have regard to the information in its Self & Custom Housebuilding Register when negotiating the mix of plots to come forward as self or custom build and will secure this through S106 or other legal agreements. Self-build/custom build homes will not be considered as an alternative to, or replacement for, the affordable housing requirements set out in Policy X: Affordable Housing
- 1.153 Where a site has five or more self or custom build dwellings the Council may require these dwellings to be developed in accordance with an agreed design code. Where plots have been available at market value and marketed appropriately for at least 3 years and have not sold, the plot(s) may remain on the open market as self or custom build or be offered to the Council or a Housing Association before being built out by the developer.
- 1.154 The Council will also seek the provision of Specialist Accommodation on strategic residential schemes of 500 dwellings or more, to ensure there will be sufficient housing to accommodate identified local need as set out in Policy BE21: Specialist Accommodation.
- 1.155 Where an applicant considers that it is not feasible or viable to meet the requirements as set out in Policy BE18 the Council will expect this to be demonstrated with robust evidence and may negotiate a proportionate housing mix which is achievable, account will be taken of the nature, constraints, character and context of the site.
- 1.156 Conditions may be used to ensure particular housing types provided, remain available in perpetuity and by tenure.

Protecting the Existing Housing Stock

POLICY BE19: PROTECTING THE EXISTING HOUSING STOCK

To ensure that housing supply is protected the net loss of existing dwellings will be resisted. The Council will only support development proposals that would result in the net loss in the number of dwellings where one or more of the following criteria are met:

- a. The continued use of the building as a dwelling is undesirable due to proven environmental constraints
- b. The loss of the dwellings would be outweighed by the provision of an essential community service or another form of residential accommodation.

In justifying any change of use between residential use classes, proposals must demonstrate how they are responding to established housing need as demonstrated in Council's most up-to-date Strategic Housing Market Assessment.

- 1.157 As demonstrated in this plan, there are substantial needs for additional housing in the borough. The Council's work to determine land supply has demonstrated that to meet this need the release of some of the Green Belt is necessary and justified. Taking these factors together, the Council considers that it is important to resist the net loss of existing dwellings.

Residential Density

POLICY BE20: RESIDENTIAL DENSITY

Proposals for new residential development should take a design led approach to density which ensures schemes are sympathetic to local character and make efficient use of land.

Residential development proposals will generally be expected to achieve a net density of at least 35 dwellings per hectare net or higher unless the special

character of the surrounding area suggests that such densities would be inappropriate; or where other site constraints make such densities unachievable.

Development proposals will be expected to achieve a higher density, generally above 65 dwellings per hectare net, in Town Centres, District Shopping Centres, and Village Service Centres or other locations with good public transport accessibility, subject to Policy BE33: Buildings Design.

- 1.158 Efficient land use is essential in a Borough like Brentwood where land is scarce and enables new homes to be provided without encroaching on the countryside. Good design makes it possible to develop in a way that is sympathetic to local character, uses land efficiently and creates or maintains a high-quality living and working environment. The right density will depend on the scheme, dwelling mix, site characteristics and location.
- 1.159 Proposals for housing developments should promote an effective use of land in line with the NPPF. Policy XX Residential Density sets out the Council's expectations on the net density of sites in the borough, supporting development proposals that make efficient use of land and discouraging low density development to ensure optimal use of each site.
- 1.160 The Council considers it reasonable to expect proposals to achieve densities of at least 35 dwellings per hectare except where this would harm the special character of an area, have an adverse transport impact or cause harm to residential amenities. Densities of 65 dwellings to the hectare or more will generally be expected in locations with good public transport accessibility.
- 1.161 To determine how much land is required to meet housing requirements, consideration has been given to the number of homes a given area can sustainably accommodate based on site and location characteristics. Efficient land use is critical to the delivery of this plan. Without it there will be more pressure to release Green Belt to accommodate new development or, alternatively, the number of new homes delivered will fall short of that planned and what would otherwise have been provided.

Specialist Accommodation

POLICY BE21: SPECIALIST ACCOMMODATION

The Council will encourage and support proposals which contribute to the delivery of Specialist Accommodation, provided that the development:

- a. meets demonstratable established local community need;
- b. is readily accessible to public transport, shops, local services, community facilities and social networks and, where appropriate, employment and day centres;
- c. would not result in the over concentration of any one type of accommodation;
- d. where appropriate, provides suitable landscaping and amenity space; and
- e. where appropriate, is in accordance with Policy NE13 New Development, Extension and Replacement of Buildings in the Green Belt.

Subject to viability, where accommodation falls within use Class C3 an appropriate proportion of affordable housing in accordance with Policy BE22: Affordable Housing will be required with the mix of tenures negotiated by the Council.

A condition may be imposed restricting occupation to persons requiring specialist accommodation where deemed necessary.

- 1.162 The NPPF requires local planning authorities to plan for a mix of housing based on current and future demographic trends, market trends and the needs of different groups in the community.
- 1.163 There are certain groups of people within the community that need specialist residential accommodation that caters for their specific needs. This form of accommodation includes, but is not limited to, housing for older people such as Independent Living schemes for the frail elderly, homes for those with disabilities and support needs, residential institutions and culturally appropriate accommodation for those Gypsies and Travellers or Travelling Showpeople who no longer exercise a nomadic lifestyle and where the Planning Policy for Traveller Sites does not apply. Policy XX Specialist Accommodation is intended to support the delivery of this national policy requirement.
- 1.164 The Council's SHMA Part 2 provides a detailed assessment of the housing required to meet existing and future needs across the Borough. The SHMA indicates that if occupation patterns of Specialist Residential Accommodation for older people remain at current levels, there will be a requirement for 494 additional specialist units to 2033. Essex County Council's Independent Living Programme is encouraging the provision of Specialist Residential Accommodation in Essex as a means to provide housing for people over the age of 55 whose current home no longer meets their needs. Essex County Council has set a target of delivering 2,825 Independent Living units (available as rented or ownership units) across the County by 2020. The Council will work with Essex County Council to secure provision of suitable sites

- 1.165 The SHMA Part 2 will be used alongside other relevant local evidence, such as the Brentwood Gypsy and Traveller Accommodation Assessment and Housing Strategy, to inform a 'Specialist Accommodation Report'; produced and updated regularly as part of the Councils ongoing Authority Monitoring commitments.
- 1.166 The Council will refer to the latest 'Specialist Accommodation Report' during negotiations with developers in establishing local need and securing the provision, and where relevant location, of the most appropriate Specialist Accommodation. The final type, tenure and quantum of specialist accommodation provision will be determined through negotiations on individual planning applications.
- 1.167 In the monitoring of this policy there will be a need to ensure the Council is satisfied with the provision of specialist accommodation being delivered, if a shortfall in provision is identified the policy will be reviewed as necessary.

Affordable Housing

- 1.168 Affordable housing is defined as housing for sale or rent, for those whose needs are not met by the market (including housing that provides a subsidised route to home ownership and/or is for essential local workers); the definition includes, but is not limited to, social rented/affordable rented and intermediate housing as well as starter homes. To be 'affordable', the cost of housing must be low enough for eligible households to afford based on local incomes and house prices.
- 1.169 A growing number of households in the Borough cannot afford to buy or rent on the open market. House prices in Brentwood are among the highest in Essex. A shortage of affordable housing leads to overcrowding, poor health, inability to achieve a decent standard of living and personal aspirations such as living independently, having children, being part of family or social network of choice – all factors that contribute to the sustainability of neighbourhoods.
- 1.170 The provision of affordable housing to meet identified need is an important objective of the Local Plan. To assess this need, the Council, commissioned consultants to produce a Strategic Housing Market Assessment (SHMA) Part 2, which was published in June 2016, and uses the national Planning Practice Guidance to calculate the level of affordable housing need. This assessment identified that the annual level of need for affordable housing in the Borough is 107 households per year.

POLICY BE22: AFFORDABLE HOUSING

The Council will require the provision of 35% of the total number of residential units to be provided and maintained as affordable housing within all new residential development sites on proposals of 11 or more (net) units or sites of 10

or less units which have a combined gross internal floorspace in excess of 1000 square meters

In considering the suitability of affordable housing, the Council will require that:

- a. a) the tenure split be made up of 86% Affordable/Social Rent and 14% as other forms of affordable housing (this includes starter homes, intermediate homes and shared ownership and all other forms of affordable housing as described by national guidance or legislation) or regard to the most up to date SHMA; and
- b. the affordable housing be designed in such a way as to be seamlessly integrated to that of market housing elements of a scheme (in terms of appearance, build quality and materials) and distributed throughout the development so as to avoid the over concentration in one area; and
- c. the type, mix, size and cost of affordable homes will meet the identified housing need as reported by the Council's most up-to-date Strategic Housing Market Assessment and Housing Strategy.

In seeking affordable housing provision, the Council will have regard to scheme viability, only where robust viability evidence demonstrates that the full amount of affordable housing cannot be delivered the Council will negotiate a level of on-site affordable housing that can be delivered taking into account the mix of unit size, type and tenure and any grant subsidy received.

The Council will only accept a financial contribution in lieu of on-site provision where it can be satisfactorily demonstrated that on-site provision is neither feasible nor viable.

Where a site has been sub-divided or is not being developed to its full potential so as to fall under the affordable housing threshold the Council will seek a level of affordable housing to reflect the provision that would have been achieved on the site as a whole had it come forward as a single scheme for the allocated or identified site.

Planning obligations will be used to ensure that the affordable housing will remain at an affordable price for future eligible households, or for the subsidy to be recycled to alternative affordable housing provision.

The requirement to provide affordable housing will apply to all residential development falling under Use Class C3 with the exception of Gypsy & Traveller Pitches or Travelling Showman Plots.

1.171 Chapter 5 of the NPPF sets out that in delivering a sufficient supply of homes, LPAs should (amongst other things, where they have identified that affordable housing is needed) set

policies for meeting this need, specifying the type of affordable housing required, and expect it to be met on-site unless off-site provision or a financial contribution of broadly equivalent value can be robustly justified and the agreed approach contributes to the objective of creating mixed and balanced communities.

- 1.172 There is a significant need for affordable housing in the borough as evidenced in the Council's SHMA which supports an affordable housing target of 35% on major developments.
- 1.173 The local plan viability assessment demonstrates that the thresholds of affordable housing contributions identified in the Local Plan are achievable and the cumulative impact of policies in the local Plan will not put development at risk.
- 1.174 The Council's SHMA indicates that within the affordable housing sector there is a need for 86% affordable/social rent. Figure ? below will be used to inform negotiations between the Council and developers to determine the appropriate tenure and mix of affordable housing.

Size & Tenure of all affordable housing required up to 2033						
Tenure	% Split	Indicative Size				
		One bedroom	Two bedrooms	Three bedrooms	Four/+ bedrooms	Total Size
Affordable rent / Social rent	86%	31%	24%	19%	26%	100%
Other forms of affordable housing	14%	28%	36%	24%	12%	100%
Total Tenure	100%					

Figure 5.1: Indicative size guide for Affordable Housing

- 1.175 Whilst the Council's starting point in any affordable housing negotiations is that a scheme is viable at the percentages and tenure splits set out within Policy BE22, the policy recognises that there may be sites on which the provision of affordable housing to the percentages or tenure splits set out, would render a development unviable or would prejudice the realisation of other planning objectives that need to be given priority.
- 1.176 In these circumstances, the applicant will be required to provide a level of on-site affordable provision which can be viably delivered. In doing so, the percentage of onsite provision not met may be made up from financial contributions in lieu of the on-site requirement subject to viability. The Council will normally take into account exceptional site costs and the existing use value of the site, but would not consider the price paid for the site to be a relevant factor as this should have taken account of policy requirements. The Council will take an 'open

book' approach to negotiation and may require viability assessments to be scrutinised by independent consultants at cost to the developer.

- 1.177 Only where it can be demonstrated that providing any affordable housing on-site is not viable or feasible will the Council consider accepting financial contributions in lieu of on-site provision.
- 1.178 The Council encourages applicants to work with RPs and to engage with them and the Council's housing department at an early stage in the planning process, further guidance on early engagement and preferred partner RPs is provided in the Housing Strategy.

Standards for New Housing

POLICY BE23: STANDARDS FOR NEW HOUSING

All residential development shall comply with the following:

Internal Residential Space

All new build housing will achieve appropriate internal space through compliance with the nationally-described space standard.

External Residential Space

New residential units will be expected to have direct access to an area of private and/or communal amenity space. The form of amenity space will be dependent on the form of housing and could be provided in a variety of ways, such as a private garden, roof garden, communal garden, courtyard balcony, or ground-level patio with defensible space from public access. In providing appropriate amenity space, development should:

- a. consider the location and context of the development, including the character of the surrounding area;
- b. take into account the orientation of the amenity space in relation to the sun at different times of year;
- c. address issues of overlooking and enclosure, which may otherwise impact detrimentally on the proposed dwelling and any neighbouring dwellings; and
- d. design the amenity space to be of a shape, size and location to allow effective and practical use of and level access to the space by residents.

Housing Quality

Consideration should be given to how smart infrastructure can be integrated into the communal areas, including waste disposal points, shared batteries for renewable energy sources etc.

All new-build residential development to incorporate sustainable design features to reduce carbon dioxide and nitrogen dioxide emissions, and the use of natural resources, in line with Policy BE02: Sustainable Construction and Resource Efficiency; Policy BE03: Carbon Reduction, Renewable Energy And Water Efficiency; and Policy BE08: Sustainable Drainage.

These standards are applicable for both private and affordable housing in Brentwood.

Compliance with the criteria should be shown on all submitted layouts and floorplans and be clearly demonstrated in the Design and Access Statement submitted with the planning application.

Internal Space Standards

- 1.179 The Government's Housing Standards Review 2015 published internal space standards which local authorities could apply to new build residential development using planning policy. The council requires the use of these standards for new build development as set out in BEXX and supports these standards for all new residential development.
- 1.180 The provision of sufficient space within new homes is an important element in improving the quality of life and wellbeing of Brentwood residents and new dwellings should provide sufficient space for basic daily activities and needs.
- 1.181 In order to ensure that homes meet the needs of local residents, regardless of their income level, it is important that internal space standards are improved alongside the overall housing mix. New homes created through residential conversions and homes created by changes of use from non-residential land uses should seek to meet or exceed the standards as far as it is practicable to do so.
- 1.182 To meet the needs of occupiers, all new residential development should be built in accordance with the nationally described space standard. The standard requires that:
- a) A dwelling provides at least the GIA and built-in storage area set out in Figure 5.2.
 - b) A dwelling with two or more bedspaces has at least one double (or twin) bedroom
 - c) In order to provide one bedspace, a single bedroom has a floor area of at least 7.5 sqm and is at least 2.15m wide
 - d) In order to provide two bedspaces, a double (or twin bedroom) has a floor area of at least 11.5 sqm

- e) One double (or twin bedroom) is at least 2.75m wide and every other double (or twin) bedroom is at least 2.55m wide
- f) Any area with a headroom of less than 1.5m is not counted within the GIA unless used solely for storage (if the area under the stairs is to be used for storage, assume a general floor area of 1 sqm within the GIA)
- g) Any other area that is used solely for storage and has a headroom of 900-1500mm (such as under eaves) is counted at 50% of its floor area, and any area lower than 900mm is not counted at all
- h) A built-in wardrobe counts towards the GIA and bedroom floor area requirements, but should not reduce the effective width of the room below the minimum widths set out above. The built-in area in excess of 0.72 sqm in a double bedroom and 0.36 sqm in a single bedroom counts towards the built-in storage requirement
- i) The minimum floor to ceiling height is 2.3m for at least 75% of the GIA.

Minimum gross internal floor areas of storage (square metres)					
Number of bedrooms	Number of bedspaces	1-storey dwellings	2-storey dwellings	3-storey dwellings	Built-in storage
Studio	1 person	39(37)	N/A	N/A	1.0
1 Bedroom	2 person	50	58		1.5
2 Bedroom	3 person	61	70		2.0
	4 person	70	79		
3 Bedroom	4 person	74	84	90	2.5
	5 person	86	93	99	
	6 person	95	102	108	
4 Bedroom	5 person	90	97	103	3.0
	6 person	99	106	112	
	7 person	108	115	121	
	8 person	117	124	130	

5 Bedroom	6 person	103	110	116	3.5
	7 person	112	119	125	
	8 person	121	128	134	
6 Bedroom	7 person	116	123	129	4.0
	8 person	125	132	138	

Figure 5.2: Nationally Described Space Standard

External Residential Space

- 1.183 External amenity space can make an important contribution in improving the quality of life and wellbeing of Brentwood residents as well as supporting and enhancing local biodiversity. Gardens, in particular, are an important environmental resource and are a component of Brentwood's greenery character. They form part of an area's development pattern, providing a setting for buildings, which in turn informs the prevailing privacy and amenity enjoyed by residents. They provide a semi-natural habitat for local wildlife and corridors for the movement of wildlife through the urban environment. Collectively, they help to mitigate fluvial and surface water flooding in the more built-up parts of the Borough.
- 1.184 The NPPF sets out the need to secure high-quality design and a good standard of amenity for all existing and future occupants of land and buildings.
- 1.185 External amenity space should be sufficient to accommodate:
- a table and chairs suitable for the size of dwelling;
 - where relevant, provision of a garden shed for general storage (including bicycles if garage provision or cycle storage to the frontage of the dwelling is not possible);
 - space for refuse and recycling bins;
 - an area to dry washing;
 - circulation space; and
 - an area for children to play in.
- 1.186 External residential space would not include car parking or turning areas. Suitable arrangements for access to refuse and recycling bins should be made to prevent bins/bags being transported through dwellings.

- 1.187 One-bedroom dwellings would not be expected to provide space for children to play, due to the lower likelihood of children occupying these units. Dwellings with more than one bedroom would need to take space for children to play into account.
- 1.188 Where it is appropriate and viable to do so, developments with flats will need to provide high-quality shared amenity areas on site to meet the needs of residents, including play space for children, in addition to private amenity space.
- 1.189 Applicants are also encouraged to consider external residential space size specifications as set out by the Essex Design Guide, prepared by ECC:
- New development on sites larger than 0.1 hectares or at densities above 50 dwellings per hectare should provide at least 25 sqm of private external space for each home;
 - Exceptionally, apartments adjacent to and overlooking a park or other large public space of high amenity value could be provided with a smaller amount of communal space. In this instance, apartments should also have balconies with a floor area of at least 5 sqm;
 - At least 60% of the private communal space should receive direct sunlight for a minimum of four hours a day in June;
 - A gross floor area of 5 sqm per balcony should be provided for houses or apartments with more than one bedroom if private external space size specifications cannot be met.

Gypsies, Travellers and Travelling Showpeople

- 1.190 The Council has a duty to identify land to meet the local needs of Gypsies, Travellers and Travelling Showpeople; national planning policy seeks to ensure fair and equal treatment for travellers.
- 1.191 In doing so, Government guidance sets out the approach Local Authorities should take when making provision for Gypsy and Travellers. It requires Local Authorities to make their own assessment of need, develop fair and effective strategies to meet need through the identification of land for sites, to plan for sites over a reasonable timescale, to increase the number of traveller sites in appropriate locations in order to address under provision and maintain an appropriate level of supply.
- 1.192 In August 2015, a new definition of Gypsy and Traveller was introduced into the Planning Policy for Traveller Sites (PPTS):
- 'Persons of nomadic habit of life whatever their race or origin, including such persons who on grounds only of their own or their family's or dependants' educational or health needs or old age have ceased to travel temporarily, but excluding members of an organised group of travelling showpeople or circus people traveling together as such.'* (PPTS) (DCLG, 2015)
- 1.193 Responding to the new guidance and the need to update evidence on the level of need, the Council alongside other Essex Local Authorities undertook a Gypsy and Traveller Accommodation Assessment (GTAA) in 2016.

- 1.194 This identified those Gypsies, Travellers and Travelling Showpeople which should be planned for in accordance with the PPTS, as they retain a nomadic lifestyle, and those which should otherwise have their specific cultural needs of living accommodation met in accordance with the Equalities Act 2010, the Children's and Families Act 2014 and the Human Rights Act 1998, but no longer exercise a nomadic lifestyle and where the PPTS does not apply.
- 1.195 In respect of those Gypsies and Travellers or Travelling Showpeople, who do not meet the PPTS definition, who may be able to demonstrate a need for culturally appropriate accommodation under Equalities legislation, the Council will continue to assess and plan to meet their needs through Policy XX Specialist Accommodation, as part of its wider responsibilities to plan to meet the accommodation needs of its settled community.
- 1.196 The Brentwood GTAA covers the period 2016 to 2033 and identifies a requirement of 11 additional Gypsy and Traveller pitches to be developed by 2033 for those who meet the PPTS definition of 'travelling'.
- 1.197 Despite achieving a good response rate for the completion of interviews, it is acknowledged in the GTAA that it was not possible to determine the travelling status of all Gypsy and Traveller households in the Borough, and a proportion of these may meet the definition provided in the PPTS. The Council's GTAA consultants Opinion Research Services therefore advise in the GTAA that an allowance of 10% is a realistic assumption of those that are recorded as 'unknown' who may in fact comply with the revised definition; this increases total need to 12 pitches.
- 1.198 Since completion of the GTAA a Gypsy and Traveller pitch at Cottage Garden, Pilgrims Hatch, has been granted planning consent for the change of use to a detached dwelling (14/01069/FUL), to replace this lost traveller site a requirement for an additional pitch is added to the total requirements of Gypsy and Traveller pitches identified in the GTAA, further increasing the total need to 13 pitches.
- 1.199 No current need has been identified in the Borough for accommodation for travelling showpeople, however any need that arises over the life of the plan will be addressed using the criteria based Policy BE28: Proposals For Gypsies, Travellers And Travelling Showpeople On Windfall sites.
- 1.200 The Gypsy and Traveller Accommodation Assessment finds no evidence of need for a transit site specifically within Brentwood Borough. Further work is currently being undertaken by Essex County Council to consider the need for transit provision across Essex as a whole. Should such a need be identified within Brentwood in the future this will be considered through the review of the Local Plan.

Provision for Gypsies and Travellers

POLICY BE24: PROVISION FOR GYPSIES AND TRAVELLERS

In order to meet identified need, a total of 13 permanent pitches for Gypsies and Travellers as defined by national planning policy for the period 2016-2033 will be provided:

- a) Through consideration of the regularisation of 8 pitches in accordance with Policy BE25: Regularisation of Suitable Existing Traveller Sites.
- b) Through the incorporation of a minimum of 5 serviced Gypsy and Traveller pitches as part of the Dunton Hills Garden Village Allocation, to be delivered in the first 5 years of development and in accordance with the criteria set out in Policy XX Proposals for Gypsies, Travellers and Travelling Showpeople on Windfall Sites.

1.201 The PPTS requires Local Planning Authorities to identify and update annually, a supply of specific deliverable sites sufficient to provide five years' worth of sites against their own, locally set targets. The Council's GTAA identifies the need for traveller pitches in the Borough over the period of the Local Plan.

1.202 In identifying the provision of sites to meet Gypsy and Traveller needs a sequential approach to site identification has been adopted, based upon best practice, as set out in Figure 5.3.

Sequential Approach	Commentary
Step 1 - use of vacant pitches	No vacant pitches available to meet needs
Step 2 - potential additional provision from existing expired temporary sites	GTAA does not count tolerated pitches as components of need therefore the identification of pitches on all expired temporary sites within the borough cannot be counted towards meeting need
Step 3 - un-authorised sites that may potentially be suitable for regularisation	8 pitches identified on two suitable sites through HELAA and site assessment process

Step 4 - potential intensification of existing sites	The HELAA and site assessment process identify potential however delivery of such sites cannot be guaranteed
Step 5 - potential extension of existing Traveller sites or sites which could be regularised	Discounted as extension on all existing sites would result in development in Green Belt
Step 7 - new Traveller sites in non-Green Belt areas	No suitable sites identified through HELAA and site assessment process
Step 8 – new Traveller sites in Green Belt areas with a focus on strategic larger allocations	5 pitches identified through HELAA and site assessment process as part of Dunton Hills Garden Village Strategic Allocation

Figure 5.3 Provision of Gypsy and Traveller Sites – A sequential Approach

- 1.203 The sequential approach sets out a clear strategy to minimise the use of greenfield Green Belt land for development, existing sites are promoted before new sites are identified. The approach also shows that there is insufficient suitable land located outside the Green Belt to meet the identified need of Gypsy and Traveller pitches.
- 1.204 For the Traveller sites identified as being suitable for regularisation, alterations to the Green Belt boundary are not proposed so sites will remain washed over by Green Belt. Very special circumstances will have to be demonstrated at the development management stage. Policy BE25: Regularising suitable existing Traveller sites seeks to provide a case upon which very special circumstances may be demonstrated.

POLICY BE25: REGULARISING SUITABLE EXISTING TRAVELLER SITES

The Council will support an application for planning permission on the following sites for permanent Gypsy and Traveller accommodation, as shown on the Policies Map and listed below, subject to compliance with identified requirements:

Site Address: **Oaktree Farm (Greenacres), Chelmsford Road**

Site Ref GT16 / Number of Pitches: 7

Proposals for development at this site should comply with the following site-specific requirements:

- A landscape framework to be submitted to provide suitable boundary treatment to include a mixture of native trees and shrubs around the site to safeguard the character and appearance of the area.
- Given the location of the site within the Green Belt any proposals for expansion will not be allowed.



Site Ref GT17

Site Address: **Hunters Green, Albyns Lane, Navestock**

No of Pitches: 1

Proposals for development at this site should comply with the following site-specific requirement:

- Given the location of the site within the Green Belt any proposals for expansion will not be allowed.



- 1.205 The Council has carried out an assessment of potential Gypsy, Traveller and Travelling Showperson sites for allocation through its Housing and Economic Land Availability Assessment (HELAA) and found some to be suitable in HELAA terms. However, it is recognised all are in the Green Belt.
- 1.206 With 89% of the Borough within the Green Belt, serving to limit development opportunities combined with a lack of alternative provision, it has been necessary to determine whether the need for Traveller sites justifies making an exception to the default national policy position, namely traveller sites being inappropriate development in the Green Belt.
- 1.207 Given that the above sites are in existing use by Travellers and will make a positive contribution to meeting the borough's identified need (as specified in Policy BE25) subject to the granting of planning permission; coupled with a lack of alternative provision in areas outside the Green Belt. In this context, and considering what may contribute to very special circumstances, the Council has taken a proactive approach, through the plan making

process, to identify suitable existing traveller sites in the Green Belt suitable for regularisation.

- 1.208 This approach, whilst not a perfect solution, responds directly to a demonstrable need and does not create a precedent for the consideration of other sites in the future.
- 1.209 The approach not only secures the planning status of the sites for the current occupants, contributing to the specified need, but also provides certainty in relation to the delivery of sites to meet the needs in Policy BE24: Provision For Gypsies And Travellers.
- 1.210 The sites identified through Policy BE25 will still be subject to the usual planning legislation and applications will need to be submitted to formally authorise their permanent Traveller use. Applicants will be expected to comply in full with the requirements of the policy it will also be necessary to restrict the occupancy to ensure that the site as a whole is retained for traveller occupation.

Safeguarding Permitted Sites

POLICY BE26: SAFEGUARDING PERMITTED SITES

The existing Gypsy and Traveller sites listed below, and as shown on the Policies Map, will be safeguarded from alternative development, unless the site is no longer required to meet any identified Traveller need across the Borough.

Any other site that is subsequently granted a permanent planning permission for Gypsy and Traveller use shall be safeguarded in accordance with this policy.

Gypsy and Traveller Sites		
Site Ref	Location	No of Pitches
GT1	Clementines Farm, Murthering Lane, Navestock	1
GT2	Deep Dell Park (Willow Farm), Ingatestone	6
GT3	Lilliputs, Blackmore	2
GT4	Meadow View, Blackmore	2/3
GT5	Pond End, Kelvedon Hatch	1/2

GT6	Ponderosa, Kelvedon Hatch	1
GT7	Poplar Farm, Ingatestone	2/3
GT8	Roman Triangle, Mountnessing	5
GT9	Rye Etch, Navestock	3
GT10	The Willows', Kelvedon Hatch	3
GT11	Tree Tops, Navestock	3
GT12	Warren Lane, Doddinghurst	1
GT13	Wenlock Meadow	1
GT14	Hope Farm, Navestock	3
GT15	Orchard View, Navestock	4

Of the sites listed above applications for the removal of temporary personal planning permissions for Gypsy and Traveller sites to permanent planning permissions for Gypsy and Traveller sites will be supported by the Local Planning Authority provided the occupant meet the definition of a Gypsy, Traveller or Travelling Showperson as defined in national planning policy.

- 1.211 Across the Borough there are many existing sites which have planning permission for traveller use. Most of these were granted permission several years ago with conditions limiting occupation to those falling within the traveller definition applicable at the time and often specific to named occupants.
- 1.212 Policy BE26 ensures existing sites which have planning permission or lawful use for gypsy or traveller use, will be safeguarded to guarantee that the permitted use as a traveller site is not lost through the grant of any subsequent planning permission, or relaxation of planning conditions, to allow for other types of development.

Sub-division of Pitches or Plots

POLICY BE27: SUB-DIVISION OF PITCHES OR PLOTS

The Local Planning Authority will consider proposals for the sub-division of authorised Gypsy, Traveller and Travelling Showpeople sites, on a case by case basis and provided that the following criteria are met:

- a. the living environment of residents on the proposed site and neighbouring land is protected; and
- b. sites are of a suitable size to enable the creation of additional pitches or plots; and
- c. the sub-division of Gypsy and Traveller sites do not result in a total of more than 10 pitches on a site; and
- d. there is no significant loss of soft and hard landscaping and amenity provision within the existing site, particularly where conditioned by a previous consent; and
- e. there is no significant adverse impact on the intrinsic character and beauty of the countryside and; there is no adverse impact in terms of highways access and vehicle movement.

It will be necessary for the application to demonstrate the need for the additional provision in relation to the requirement of Policy BE24, the lack of alternative provision and specific circumstances of the applicant.

- 1.213 It is recognised that during the plan period there may be a demonstrable need for additional pitches on those sites safeguarded or allocated through the Local Plan, to meet the changing needs of the households on the sites.
- 1.214 With 89% of the Borough within the Green Belt, serving to limit development opportunities, the sub-division of existing sites to provide more pitches could be a suitable way to increase provision within existing lawful sites without the need to consider the allocation of additional sites upon plan review.
- 1.215 As all safeguarded sites (with the exception the Dunton Hills Garden Village allocation) remain washed over by Green Belt, very special circumstances will have to be demonstrated at the development management stage. Therefore, in the application of this policy a key issue will be establishing a demonstrable need for an additional pitch coupled with a lack of suitable alternative accommodation; as such the Council will require the applicant to clearly

demonstrate the need for an additional pitch, and that the lack of alternative accommodation requires an additional pitch. Only if such need can be demonstrated will the Council look to support such an application in accordance with the criteria set out in Policy BE27.

Proposals for Gypsies, Travellers and Travelling Showpeople on Windfall Sites

POLICY BE28: PROPOSALS FOR GYPSIES, TRAVELLERS AND TRAVELLING SHOWPEOPLE ON WINDFALL SITES

Planning permission for Gypsy and Traveller caravan sites and sites for Travelling Showpeople (as defined in the Governments Planning Policy for Travellers) on unallocated land outside development frameworks, and outside the Green Belt, will only be granted in accordance with the following criteria:

- a. The site is well related to existing communities and accessible to local services and facilities, such as shops, primary and secondary schools, healthcare and public transport; and
- b. The location would not result in unacceptable living conditions for its occupants and adhere to the Designing Gypsy and Traveller Sites Good Practice Guide regarding Density and Spacing of caravans and trailers standards; and
- c. The site is serviced by a suitable access road; and
- d. essential services (water, electricity and foul drainage) are available on site or can be made available on site; and
- e. there is no significant adverse impact on the intrinsic character and beauty of the countryside; and
- f. the site would not lead to the loss of, or adverse impact on, important historic and natural environment assets; and
- g. there is no significant risk of land contamination or unacceptable risk of flooding; and
- h. there is no significant adverse impact on the amenity of nearby residents; and
- i. plots for Travelling Showpeople should also be of sufficient size to enable the storage, repair and maintenance of equipment.

Gypsy and Traveller sites are inappropriate development in the Green Belt. Any proposals in the Green Belt would have to demonstrate they comply with National and Local Policy regarding development in the Green Belt. If, through the application of such Policy, provision of a Gypsy and Traveller site in the Green Belt is considered acceptable in principle, the proposed development is required to comply with the criteria set out within this policy.

- 1.216 This policy applies to non-allocated or safeguarded sites which may come forward during the plan period in built-up areas and the countryside.
- 1.217 The policy excludes land in the Green Belt. National planning policy establishes a general presumption against inappropriate development in the Green Belt. The definition of inappropriate development includes Gypsy and Traveller sites and Travelling Showpeople sites. Subject to the best interests of the child, personal circumstances and unmet need are unlikely to clearly outweigh harm to the Green Belt and any other harm so as to establish very special circumstances.
- 1.218 When permission is granted, appropriate conditions or planning obligations will be imposed to ensure occupation of the site is restricted to those persons falling within the appropriate definition of Gypsies and Travellers and may also include conditions relating to landscaping and boundary treatments.

Design and Place-making

Good Design

- 1.219 Good design is a key aspect of sustainable development and is intrinsic to good planning. The built environment, the architecture and sense of place that it comprises of, are things that no one can avoid, and upon which people from every age and background have a view. The form, layout and character of buildings and public spaces contribute greatly in building communities, creating quality of life, improving health and well-being, making effective use of land, and facilitating activities and services.
- 1.220 The term 'high quality design' is frequently used yet is frequently misunderstood as architectural styles. Although visual appearance and the architecture of individual buildings are very important factors, high quality and inclusive design go beyond aesthetic considerations and address the connections between people and places and integrated new development into the natural, built and historic environment.

- 1.221 The Council attaches great importance to high quality and inclusive design for all development - including individual buildings, public and private spaces and wider area development schemes.
- 1.222 The Essex Design Guide is a useful starting point for a development and provides guidance regarding amenity standards, layouts and case studies. The guide should be used flexibly and should not prevent innovative layouts or design proposals. For area within or in the vicinity of Brentwood Town centre, applicants should refer to the Brentwood Town Centre Design Plan and Design Guide³⁶. The Design Plan sets out how future development opportunities can collectively enhance Brentwood Town Centre, whilst Design Guide provide specific design guidance for development proposals in the area.

POLICY BE29: PLANNING FOR INCLUSIVE COMMUNITIES

To plan for and build inclusive environment that supports our residents and communities, the Council will work with partners, stakeholders and developers to:

- a. provide access to good quality community spaces, services and amenities and infrastructure that accommodate, encourage and strengthen communities;
- b. create places that foster a sense of belonging and social interaction, where communities can develop and thrive;
- c. ensure that streets and public spaces are planned for everyone to move around and spend time in comfort and safety, are convenient and welcoming with no disabling barriers, providing independent access without additional undue effort, separation or special treatment;
- d. ensure buildings and places are designed in a way that everyone regardless of their ability, age, income, ethnicity, gender, faith, sexual orientation can use confidently, independently, with choice and dignity, avoiding separation or segregation;
- e. ensure that new buildings and spaces are designed to reinforce inclusivity of neighbourhoods, and are resilient and adaptable to changing community requirements.

³⁶ <http://www.brentwood.gov.uk/designplan>

POLICY BE30: CREATING SUCCESSFUL PLACES

Proposals that meet high design standards to deliver safe, inclusive, attractive and accessible places will be supported. They should:

- a. provide a comprehensive design approach that deliver high quality, safe, attractive, inclusive, durable and healthy places to live and work in;
- b. support the efficient use of land and infrastructure, through uses, mix and density/development intensity;
- c. deliver buildings, places and spaces that can adapt to changing social technological, economic and environmental conditions;
- d. consider sustainable design and layout at the earliest stage of design, where landscaping, public frontages, building orientation and the impact of microclimate can be considered within the layout to positively enhance the townscape and provide attractive places that improve people's health and sense of vitality;
- e. create permeable, accessible and multifunctional streets and places that promotes active lifestyle and integrates different modes of transport, parking and servicing;
- f. access, routes and connectivity for cyclists and pedestrians through and out from development sites should be superior to that provided for motorists so that walking and cycling becomes the natural choice for journeys around the locality
- g. ensure public and private amenity spaces of both existing and future development are inclusive, usable, safe and enjoyable; these include indoor and outdoor space, outlook, natural lighting, ventilation, matters of privacy, overlooking;
- h. create a range of opportunities for natural surveillance and observation;
- i. mitigate the impact of air, noise, vibration and light pollution from internal and external sources, especially in intrinsically dark landscapes and nature conservation, as well as residential areas;
- j. integrate a mix of building typologies that meet the diverse needs of people in the borough;
- k. meet the principles of inclusive design and facilitate an inclusive environment for people of all abilities and age, ethnicity, gender, economic circumstances, and faith;

- l. be designed to minimise criminal activities or perceived threat of crime and improve community safety;
- m. use sustainable materials, finishes and street furniture that are suitable to the location and context.

In addition, proposals should reflect the requirements of Brentwood boroughs Masterplan requirements where applicable.

- 1.223 The NPPF (2018) are clear that applicants will be expected to work closely with those directly affected by their proposals to evolve designs that take account of the views of the community. Therefore, early discussion with the Council and the local community about the design of emerging schemes is important for clarifying expectations and reconciling local and commercial interests.
- 1.224 Different elements of place making may be more or less important than others, depending on the nature and complexity of the site and its surroundings.
- 1.225 A key aspect of design that should be integral in all development proposals is its role in creating a safe and accessible environment which minimises the opportunities for terrorism, crime and disorder, anti-social behaviour and the fear of crime, without being overbearing or undermining community cohesion. This can be achieved by good natural surveillance, well-used walkways, appropriate lighting and a lack of potential hiding places. Optimising site layout and building design are also effective measures.
- 1.226 Inclusive design approach should be integrated in proposals in the outset, where applicable. Enabling everyone to have safe access to places regardless of their age, ability, ethnicity, gender, faith, economic circumstance will create more inclusive communities, and improve the quality of life for people with a range of health conditions and older people.
- 1.227 Reliable, high speed internet has become a necessity for many people and is likely to become more so in the future. Developments should provide current best practice high speed connections direct to each premises, domestic or commercial in line with Policy XX Connecting New Developments to Digital Infrastructure. Currently this is fibre to the premises (FTTP) although superior new technologies will replace this and development should provide the technologies which are considered best practice at the time of development. Connections to other digital technologies should likewise be incorporated at the time of construction, to give occupiers the early benefit of the new technologies and to avoid disruptive and unsightly retrofitting.
- 1.228 Mitigation solutions through design for poor air quality and noise exposure from both external and internal sources should be integral to development proposals and be considered early in the design process. Especially in urban areas or areas that are close to key traffic routes, roundabouts and junctions.

- 1.229 An important part of making successful places is to ensure that new buildings are attractive, appropriate in their setting and fit for purpose. Their massing, scale and layout should enhance, activate and appropriately frame the public realm, complement the existing streetscape and surrounding area.
- 1.230 The Council expects issues within this policy (BE30), Policy BE31: Responding to Context; Policy BE32: Permeable and Legible Layout; Policy BE33: Building Design; and Policy BE35: Designing Landscape and the Public Realm, to be positively addressed through the Design & Access Statements that accompany applications. The Design & Access Statements will show an analysis of the site context, and an explanation and justification of the principles that have informed the design rationale.
- 1.231 The Council will require design to be addressed in the pre-application process on major developments and in connection with all heritage sites. For major sites/strategic sites and complex developments, Design Codes will need to be prepared in conjunction with the Council and local stakeholders to ensure appropriate character and high-quality design is delivered throughout. Reference to existing Masterplans must be made, as applicable. Design Codes will usually be prepared between outline and reserved matters stage on larger sites, especially those whose development will be spread over long periods and involve more than one developer to set out design principles for the development of the site. The level of prescription will vary according to the nature of the site.

POLICY BE31: RESPONDING TO CONTEXT

Successful design is founded upon an understanding and respect for an area's unique built, natural and cultural context. Development will be supported where it is demonstrated that it responds positively to its context and has drawn inspiration from the key characteristics of its surroundings.

The Council will require applicants to demonstrate how proposals:

- a. identify and respond positively to existing features of natural, historic or local importance on and close to the proposed development site;
- b. use appropriate local characteristics to inform the use, layout, massing, scale, detailing, materials, location of entrances and landscape design of new development;
- c. enhance, reinforce or improve the quality and appearance of the surrounding area and the way it functions; and
- d. be well connected to, and integrated with, the immediate locality and wider area.

- 1.232 Brentwood’s environment, its significant natural and historic features are of high value and need to be protected and enhanced by means of improving the quality of development. Proposals that show a thorough understanding of the context of the site and demonstrate how the design proposal is sympathetic to its context, reinforcing local distinctiveness and sense of place are more likely to be successful.
- 1.233 The context of a development is the setting of a site or area, a proposal that responds positively to its context is one that will either enhance it or will seek to introduce distinctiveness to areas lack of character. When undertaking context appraisals and Design and Access Statements³⁷, applicants should consider³⁸:
- i. The Built Context: providing a demonstrable appreciation of built form in the vicinity covering analyses of building style, form, height and as well as the pattern of streets and spaces, morphology, skylines and landmarks;
 - ii. The Environmental Context: open spaces, bio-diversity structure, landscape character, areas liable to flood;
 - iii. The Functional Context: examining the existing activities and functions in the vicinity of the site including the existing pattern of uses, economic development initiatives, health, education & community facilities and public art;.
 - iv. The Spatial Context: identifying the development site’s position within the urban hierarchy;
 - v. The Operational Context: showing how infrastructure and facilities are used and their capacity to accommodate further demands;
 - vi. The Community Context: seeking to determine the reasonable and realisable needs and demands for space within an area and to associate these demands with the known existence of vacant or under-used space and the potential for creating new space;
 - vii. The Historic Context: seeking to encourage new development that respects and fits and is informed in with the character of traditional historic form of the Essex towns and villages the development will take place within.

The Council expects all the issues within this policy to be positively addressed through the Design and Access /Planning Statements that accompany applications.

- 1.234 Where development is in the vicinity of any of Brentwood’s distinctive natural, cultural or historic assets, delivering high quality design that complements the asset will be essential.

³⁷ A Design and Access Statement (DAS) is a short report accompanying and supporting a planning application. They provide a framework for applicants to explain how a proposed development is a suitable response to the site and its setting, and demonstrate that it can be adequately accessed by prospective users. A DAS is required with planning applications for major development – both full and outline

³⁸ Essex County Council (2018) Design Guide. Available online: <https://www.essexdesignguide.co.uk/understanding-context/>

- 1.235 Having identified and responded to the opportunities and constraints of the surroundings are prerequisite to creating successful places that are attractive, enjoyable and available to everyone. Such places are important to the quality of life in Brentwood.

POLICY BE33: PERMEABLE AND LEGIBLE LAYOUT

Development proposals will be favourably considered where the planning and design of layout:

- a. create a permeable and legible street system that connects well with the existing links within and outside of the development;
- b. arrange building forms, access points, routes, public and private spaces, and ancillary functions in an efficient, safe, workable, spatially coherent and attractive manner;
- c. incorporate existing site features of value; and
- d. safeguard the amenities of occupiers and nearby properties.

- 1.236 Permeable and legible layout is at the heart of good design and making successful places. Applicants are encouraged to optimize the layout, including spaces between and around buildings, to form a coherent pattern of streets and blocks. The overarching layout of a site should be informed by its context rather than technical demands of traffic.
- 1.237 The resulting street system should be well-connected and offers a choice of direct routes to all destinations, as well as allows easy, effective orientation and navigation. The streets, especially in residential schemes, should be designed around pedestrian use or cycleways, with particular attention given to ensuring accessibility and safety to the elderly or disabled.
- 1.238 Another key consideration when designing a site layout is the nature and function of the spaces between buildings. Site layout should ensure that buildings relate successfully to one another and have no adverse impact on the amenity of occupiers. Spaces that are safe and welcoming in the long-term are those that eliminate the opportunity for anti-social activity through the placing of building fronts and treatment of spaces.
- 1.239 Existing landscape features on site such as trees, ponds and built-forms of value could also be integrated in the layout to establish a sense of place and/or a sense of legibility. The incorporation of existing landscape features is particularly important to people with dementia, as familiar landmarks can serve as visual cues to aid in wayfinding.

POLICY BE33: BUILDINGS DESIGN

In ensuring high quality design standard, new buildings will be supported where it can be demonstrated that they:

- a. have a positive impact on their setting in terms of siting, scale and massing, materials and detailing, use and ground floor activity, wider townscape and landscape impacts;
- b. are safe, convenient and accessible for all users to a level in excess of building regulations minima;
- c. design measures to reduce the environmental footprint of the buildings, in line with Policy BE03: Carbon Reduction, Renewable Energy And Water Efficiency.
- d. support and integrate biodiversity in the built environment;
- e. are constructed in a sustainable manner and are easily adaptable to needs of future occupiers;
- f. successfully integrate functional needs such as storage, refuse and recycling, bicycles and car parking; electric car charging points; and
- g. incorporate safe emergency evacuation facilities for all building users.

Alterations and extensions to existing buildings will be permitted where they:

- h. reflect, or positively respond to, the existing building form, material palette and architectural detailing in keeping with Policy BE31 Responding to Context;
- i. proposals for doors, windows and roof profiles respect the character and proportions of the original building and surrounding context;
- j. do not unacceptably overlook, overshadow or visually dominate neighbouring properties;
- k. respect the space between buildings where this contributes to the character of an area; and
- l. retain sufficient amenity space, bin storage, vehicle access and cycle and car parking.

- 1.240 Attention should be paid to the design of the parts of a building that people most frequently see or interact with, i.e. the ground plane and its legibility, use, detailing, materials and entrances.
- 1.241 New developments should be designed and managed so that online deliveries and goods deliveries can be received without causing unacceptable disturbance to residents and traffic.
- 1.242 Bin storage for dry recyclables and waste should be considered in the early design stages to help improve recycling rates, reduce smell and vehicle movements, and improve street scene and community safety.
- 1.243 Buildings and the spaces around them, landscape, public realm and boundary treatment should be thought about holistically; these external spaces are as important as the building itself.
- 1.244 This policy should be read in conjunction with Policy BE23: Standards for New Housing; Policy BE35: Designing Landscape and the Public Realm; Policy BE17: Parking Standards; and Policy BE02: Sustainable Construction and Resource Efficiency.

POLICY BE34: PAVING OVER FRONT GARDENS

Where planning permission is required for proposals for the paving over of front gardens, the following criteria should be met:

- a. the proposal appropriately manages surface water run-off, particularly for those areas of the Borough with high levels of surface water flooding in line with Policy NE07: Flood Risk;
- b. it will not have a negative impact on the character and setting of the immediate area, particularly where applications fall within conservation areas or in the curtilage of a listed building.

- 1.245 Hard surfacing of front gardens to provide car parking can be harmful to the appearance of residential areas, giving rise to the loss of walls, hedgerows and other features which may contribute positively to its character. In addition, where either side of a street are paved over, it makes the road appear wider and may result in reduced on-street parking and increased traffic volumes and speeds. This creates a much less pleasant living environment for residents.
- 1.246 The replacement of front gardens with hard surfacing can place extra pressure on surface water drainage resulting in increased runoff with the potential for increased surface water flooding, increased pollution of watercourses and a negative impact on biodiversity and wider ecological networks. Under the Highways Act, it can be an offence to drain water from a property on to the footway.

- 1.247 Where permission is required, proposals will be assessed in terms of their impact on surface water flooding in an area, impact on the character and setting of an area, and whether they would result in a net loss of biodiversity.

Landscape and Public Realm

- 1.248 The public realm, also known as public space or public domain, comprises features such as streets, paths, squares and urban green spaces. The success of places is ultimately judged by how enjoyable they are to use or visit. In the public realm, the space between buildings, how it all comes together, how grey and green infrastructure is integrated, how built form and spaces relate, matter as much as the buildings themselves. How buildings and adjacent spaces function and relate to each other has a strong bearing on how safe, convenient and attractive a place looks and feels as a whole. These qualities matter in development of all sizes.

POLICY BE35: DESIGNING LANDSCAPE AND THE PUBLIC REALM

Landscape and public realm must be designed as an integral part of new development proposals. High quality development will be supported where they can demonstrate how their proposals:

- a. are designed in relation to the function and character of the spaces and surrounding area;
- b. retain or enhance existing features including open spaces, trees, natural habitats or other features which make a positive contribution to the character, appearance or significance of the local area;
- c. incorporate Green and Blue Infrastructure in an appropriate manner to the scale of adjacent buildings and the space available;
- d. enhance biodiversity through the use of native planting and/or selected species capable of adapting to climate change;
- e. coordinate the design and siting of street furniture, boundary treatments, lighting, signage and public art;
- f. factor microclimate and daylight into the design proposals;
- g. use high quality materials, finishes and street furniture that are suitable to the location and context and help create local distinctiveness;
- h. adopt the principles of inclusive design and facilitate an inclusive environment for all users; and

- i. demonstrate how public spaces are to be maintained for the life of the development.

This policy should be read in conjunction with Policy BE23: Standards for New Housing; Policy BE30: Creating Successful Places; and Policy BE36: Green & Blue Infrastructure.

- 1.249 Well-designed landscape and public realm is fundamental to health and well-being. Creating a well-used and active public realm also helps to foster a sense of community and reduces crime. Applying the principles of this policy will help ensure that new development positively enhances the public realm, securing improvements where needed for the Plan period and beyond.
- 1.250 The design, layout and landscaping of development scheme should support active lifestyle, community interaction and economic vitality. Proposals should seek to join up the landscape features and open spaces to create coherent linked landscape networks which can be used to encourage people to be active. It should facilitate the use of public transport, walking and cycling, make it easy for people to get around by means other than the car.
- 1.251 Landscaping and urban greening should be designed to ecologically enhance and, where possible, physically connect existing parks and open spaces. Green space can be used as a community resource and provides recreational benefits, aids social cohesion, improves quality of life and increases property values. Trees and plants contribute to tackling climate change as well as providing habitats for different species.
- 1.252 There has been substantial clinical evidence³⁹ to suggest that exposure to an outdoor green environment can considerably reduce stress. Simply being able to view nature can produce significant recovery or restoration from stress within 3-5 minutes. The provision of shade, shelter, resting points and seating, a refuse recepticals as well as natural surveillance, make such places more attractive to use. In addition, they are equally accessible to people with a wide range of physical and mental abilities. The Council therefore encourages making effective use of green spaces to better support the broad needs, including mental health needs, of Brentwood residents.
- 1.253 In light of forecast increase in the number of older people in Brentwood over the coming years, it is vital to accommodate the needs of people with a range of health conditions and older people. Policy BE30: Creating Successful Places provides the principles of inclusive design to enable an increasingly aging society to get out and about in the areas in which they live and connect with other people and services in the immediate neighbourhood and beyond. Accommodating the needs of older people requires the introduction of standardised measurements and designs that enable dwellings to withstand the loads of mobility or safety aids. The Building Regulations Part M4 Category 2 (Accessible and Adaptable Dwellings) should be adopted into all new designs so as to correctly address such fundamentals of

³⁹ CABE (2010) Community Green

accessibility and approach. New homes should also consider designing to accommodate the shift towards digital healthcare

- 1.254 Stimuli targeted at each of the senses (sight, scent, touch, sound and taste) should be incorporated into the landscape structure from the outset, to ensure that the development caters for people of all physical and mental abilities. This relates to both the natural, soft elements of the landscape – such as planting – and hard elements like sculptures, water features and furniture. Planning for users of all abilities and ages from the beginning can reduce the need for costly future adaptations.
- 1.255 The lighting of the public realm needs careful consideration to ensure it is appropriate to address safety and security issues, and make night-time activity areas and access routes welcoming and safe, while also minimising light pollution.
- 1.256 Proposals should refer to the most up to date urban design principles and guidance, including Brentwood Town Centre Design Guide, Essex Design Guide 2018, Manual for Streets, Building for Life, Secured by Design.

Green and Blue Infrastructure

- 1.257 There are a number of definitions of Green and Blue infrastructure (GBI) ^{40 41 42}, all share the same notion in which GBI can be understood as natural or semi-natural networks of green (soil covered or vegetated) and blue (water covered) spaces and corridors that maintain and enhance ecosystem services; it is capable of supporting and enhancing biodiversity and geodiversity, improving air and/or water quality, enhancing and conserving the historic environment, providing recreational or cultural experiences as well as enriching the quality of life of local communities.
- 1.258 In Brentwood, GBI includes open space, woodlands, wildlife habitat, parks, registered commons, villages and town greens, nature reserves, recreational sports facilities, cemeteries, allotments, gardens, waterways and bodies of water, historic parks and gardens and historic landscapes. Figure 5.3 sets out the GBI typology which is based upon the Green Infrastructure Strategy⁴³, Sport, Leisure and Open Space Assessment⁴⁴, Natural England's Green Infrastructure Guidance⁴⁵.

⁴⁰ Department for Communities and Local Government (2018) NPPF Annex 2: Glossary

⁴¹ Natural England (2009) Green Infrastructure Guidance

⁴² Naumann S., Davis M., Kaphengst T., Pieterse M. and Rayment M. (2011): Design, implementation and cost elements of Green Infrastructure projects. Final report to the European Commission, DG Environment.. Available at http://ec.europa.eu/environment/enveco/biodiversity/pdf/GI_DICE_FinalReport.pdf

⁴³ Groundwork (2015) Brentwood Green Infrastructure Strategy

⁴⁴ PLC (2016) Sport, Leisure and Open Space Assessment Final Report

⁴⁵ Natural England (2009) Green Infrastructure Guidance

Type of GI	Key Policy Elements
Parks and Gardens	County Parks, Borough Parks and Recreation Grounds, Historic Parks and Gardens.
Ecological assets and natural and semi-natural greenspaces (urban / rural)	Special Sites of Scientific Interest (SSSI), Local Nature Reserves (LNR), Local Wildlife Sites (LoWS), Woodlands, Geological Assets, Grasslands, Thames Chase Forest, other assets.
Green and Blue Corridors	Main rivers, large ordinary / non-main river watercourses, major tributaries, wetland, hedgerows, major road corridors, major rail corridors, cycling routes / network, pedestrian paths and rights of way, Protected Lanes.
Outdoor sports facilities and provision for children and teenagers	Natural green surfaces: tennis courts, bowling greens, sports pitches, golf courses, school and other institutional playing fields, and other outdoor sports areas. Green formal / informal recreation areas for children / teenagers.
Amenity greenspace	Amenity greenspace, village greens, commons, other informal greenspace, protected open space, locally designated green space.
Allotments	Typically parish and borough council owned / managed.
Cemeteries and churchyards	Public and privately-owned facilities.
Classified landscapes and accessible urban fringe countryside	Special Landscape Areas, Ancient Landscapes.
Other GI	Private gardens.

Figure 5.3: Brentwood Green Infrastructure Typology

1.259 GBI as a design approach considers the effects and problems of modern development, it promotes a sensibility that accepts the interwoven worlds of the human and the natural, and seeks to more fully and intelligently design human environments in harmony with the conditions of setting, environment, and climate change⁴⁶.

⁴⁶ Armour T. and Tempany A. (2017) Mainstreaming Green Infrastructure in TCPA (2017) Special Issue on Planning Our Green Infrastructure

- 1.260 The Council will protect and enhance local distinctiveness and plan positively for the creation, protection and enhancement of networks of biodiversity and GBI in line with the Council's Green Infrastructure Strategy (2015). As part of planning for infrastructure provision, the Council will work with statutory bodies, infrastructure providers including Essex County Council and utilities companies and consider the roles of developers in providing and maintaining the GBI that is required as a result of new growth.

POLICY BE36: GREEN & BLUE INFRASTRUCTURE

Brentwood's existing ecological networks, its green and open spaces, as well as green and blue features in the built environment are a part of the Borough's network of Green and Blue Infrastructure (GBI) and should be protected, planned, enhanced and managed.

Development proposals should:

- a. ensure GBI is integral to the primary decision making at every stage in the planning process;
- b. maximise opportunities for the provision, restoration, enhancement, and connection of GBI that integrates with natural and historic environments and systems;
- c. direct buildings and construction area to the least sensitive locations;
- d. provide appropriate specification and maintenance plans for proposed on site green and blue infrastructure throughout the life of the development, this includes small scale greening interventions such as green roofs, street trees and soft landscaping;
- e. protect and enhance Brentwood's rivers, ponds and watercourses, avoid any adverse impacts on existing rivers, the water quality of the rivers and watercourse, and demonstrate that any unavoidable impacts are mitigated;
- f. seek to improve the water environment and ensure that adequate wastewater infrastructure capacity is provided;
- g. ensure that misconnections between foul and surface water networks are eliminated and not easily created through future building alterations;
- h. incorporate measures such as smart metering, water saving and recycling, including retrofitting and rain/grey water harvesting, to help to achieve lower water consumption rates and to maximise futureproofing;

- i. deliver environmental net gains; if there is a net loss from the development, provide provisions through offsetting.

Where this is not possible, financial contributions to facilitate improvements to the quality and extent of existing GBI in Brentwood Borough will be sought.

The quantity, quality, accessibility and distribution of Green and Blue Infrastructure for proposed allocations, including Dunton Hills Garden Village, will be set out in site specific policies.

This Policy should be read in conjunction with Policy BE08 Sustainable Drainage; Policy BE37: Access to Nature; and Policy NE07 Flood Risk.

- 1.261 This policy is in line with the NPPF, as well as the government's latest environment plan: A Green Future: Our 25 Year Plan to Improve the Environment ⁴⁷ which sets out a long-term vision for England's environment post-Brexit, along with some medium-term aspirations for progress, and some shorter-term actions. The plan stresses the importance of good-quality Green and Blue Infrastructure (GBI) and commits to creating a 'national framework of green infrastructure standards, ensuring that new developments include accessible green spaces and that any area with little or no green space can be improved for the benefit of the community'. The plan also says that the government intends to strengthen and improve planning policy concerning biodiversity 'net gain' in developments.
- 1.262 It is vital that the right infrastructure is in place to support future growth in the Borough, and this includes GBI. There is a need to better link formal and informal open spaces in the Borough to improve their wider use and value, as highlighted by the Brentwood Green Infrastructure Strategy (2015). Existing GBI should be protected and enhanced and where opportunities arise, e.g. in conjunction with new development, additional provision made.
- 1.263 There is a growing and compelling body of evidence substantiating the potential for GBI to contribute to the economic, social and environmental well-being of individuals and society; for example, access to the countryside, sport and recreation facilities can promote active and healthy lifestyles through the enhancement of walking and cycling. Strategic scale and more local GBI can make a vital contribution to quality of place and health outcomes if properly integrated into the design and delivery of new development.
- 1.264 It is widely acknowledged that GBI and open space has a major role to play in mitigating against and adapting to climate change, for example, urban cooling, encouraging sustainable travel choices, flood alleviation and supporting habitats. Through the provision of GBI the policy can help overcome habitat fragmentation and improve the ability of the

⁴⁷ HM Government (2018) A Green Future: Our 25 Year Plan to Improve the Environment, available at <https://www.gov.uk/government/publications/25-year-environment-plan>

natural environment to adapt to climate change and habitat loss by improving ecological connectivity.

- 1.265 Landscape, parks and open space often have heritage interest, and can play a key role in enhancing and conserving the historic environment. It can be used to improve the setting of heritage assets and to improve access to it. Likewise, heritage assets can help contribute to the quality of green spaces by helping to create a sense of place and a tangible link with local history. Opportunities can be taken to link GBI networks into already existing landscapes or green spaces in towns or existing historic spaces such as church yards, town paths, verges etc. as well as larger designed landscapes to improve the setting of and access to historic buildings or historic townscape. Maintenance of GBI networks and spaces should also be considered so that they continue to serve as high quality places which remain beneficial in the long term.
- 1.266 Brentwood rivers and their valleys form an attractive and important ecological, leisure and recreation resource. The rivers are valued by residents and used as corridors of movement by people and wildlife. They also contain floodplains that provide flood storage capacity. The River Wid is located within the Anglian River Basin District and the Roding, Beam and Ingrebourne catchment and Mar Dyke lie within the Thames River Basin District. They contribute to the objectives of the Water Framework Directive, the Thames and Anglian River Basin Management Plan.
- 1.267 According to the Brentwood Water Cycle Study (2018), watercourses in the study area are either of Poor or Moderate Status; therefore, new development proposals need to ensure construction does not result in deterioration and where necessary, provide protection, enhancement and buffering of watercourses. This includes the provision of ecological buffer strips and corridors, native tree planting and the new wetland areas to help manage flood risk and reduce diffuse pollution whilst connecting people to nature. This could also include de-culverting, removal of redundant structures, alien species removal where appropriate.
- 1.268 According to the TCPA's guidance *Planning for Green and Prosperous Places*⁴⁸, as time goes by, GBI usually becomes increasingly valuable, but only if it is well maintained. This guidance also emphasises on the importance of maintaining GBI. Therefore, when planning GBI, the following should be considered from the earliest stage:
- revenue funding: to pay for the care of the GBI in perpetuity;
 - capital funding: to pay for creating the GBI; and
 - the design of the GBI: which will affect the cost of maintaining it as well as the cost of creating it.
- 1.269 Proposals that provide appropriate GBI which is well integrated with the existing and new development and with the surrounding area will be supported. In progressing an allocation, strategic consideration should be given to additional mitigation measures, for example planning for the provision of 'off-site' compensatory habitats to address likely residual impacts upon Priority Habitats and Species, and long-term financial support to land

⁴⁸ TCPA (2018) *Practical Guides for Creating Successful New Communities - Guide 7: Planning for Green and Prosperous Places*

managers of nearby Green and Blue Infrastructure that may be subject to significant additional recreational pressure.

- 1.270 The strategic allocation of Dunton Hills Garden Village is located between three living landscape areas; other strategic allocations in the South of the Borough, such as the Enterprise Park and West Horndon Industrial Estate redevelopment are also likely to have cumulative impacts on the landscape. However, they also present significant opportunities to establish a strategic framework that deliver a positive contribution to the local ecological network and habitat species. The Council will work with developers, relevant partners and service providers to deliver green infrastructure link improvements across the A127 at the south of the Borough. The quantity, quality, accessibility and distribution of GBI across the area will be considered in development masterplan frameworks.
- 1.271 The strategic planning, implementation and management of GBI requires a co-ordinated approach from a multi-disciplinary, cross-organisational team of partners, for example, Highways England, ECC, Natural England, Thames Chase Forest, Essex Wildlife Trust, the Council's public health team, as well as voluntary groups.

POLICY BE37: ACCESS TO NATURE

Access to nature should be integrated as a fundamental part of site and buildings design. Development, including conversion of existing buildings, will be supported if they:

- a. Major development should provide direct access to nature by measures such as buildings design and orientation, high-quality landscaping, planting, green roofs, green walls, nature-based sustainable drainage and/or non-motorised access to the countryside;
- b. These measures should be protected, planned, designed and managed as integrated features of Green and Blue Infrastructure;
- c. Development in areas that are more than 1km walking distance from an accessible green open space should seek opportunities to improve residents' experience and interaction with nature by means of design and/or greening interventions.

This Policy should be read in conjunction with, Policy BE33: Buildings Design; and Policy BE35: Designing Landscape and the Public Realm.

- 1.272 The Health Foundation identifies ‘our surroundings’ as one of eight factors, outside of health care, that influence people’s opportunity to live a healthy life⁴⁹. In addition, potential mitigations to adult health and social care pressure are rooted in better access to and more regular use of green open space. Effective planning and delivery of GBI at all levels is vital if it is to be delivering health outcomes⁵⁰.
- 1.273 Ambient access to nature carries its own benefits, but the Council encourages interventions that use active connection to nature to achieve improved health and positive lifestyle. GBI need not be difficult or expensive to implement, it can be delivered one step at a time when resources are available. Small and micro scale greening interventions such as pocket park, courtyard garden, green roofs/wall, can be as valuable as large scale GBI in building the pieces of the network. Integrating micro GBI in the built environment can arguably has some of the most significant effects, for example enhancing microclimate, addressing the urban heat island effect, improving water management, creating community cohesion, influencing use and behaviour.
- 1.274 Fragile or high-input landscape features (for example, intensive green walls) could fail their purpose if not properly installed or maintained. This applies to other aspects of building design and construction and should be addressed by ensuring that any proposed greening intervention is supported by appropriate specification and maintenance plans.

POLICY BE38: ALLOTMENTS AND COMMUNITY FOOD GROWING SPACE

Planning for allotment space should be an integral part of the Green and Blue Infrastructure provision in residential development.

Provision of space for personal and community gardening and food growing will be favourably considered.

This Policy should be read in conjunction with Policy BE41 Open Space, Community, Sport and Recreational Facilities.

- 1.275 Local community food growing space not only helps to improve social integration and community cohesion but can also contribute to improved mental and physical health and wellbeing. It supports healthy living by enabling residents make more sustainable food choices, protects local ecosystems and fosters community spirit and enterprise. It also helps reduce the carbon footprint of food production by minimising CO2 emissions from transporting food and is beneficial for air quality by helping to reduce pollution.

⁴⁹ Health Foundation (2017) ‘Infographic: how do our surroundings influence our health?’ Webpage. Available at <https://www.health.org.uk/blog/infographic-how-do-our-surroundings-influence-our-health>

⁵⁰ Williams B. (2017) ‘The adult health and social care crisis – green infrastructure as part of the solution’ in TCPA (2017) Special Issues on Planning our Green Infrastructure

- 1.276 The wider benefits of growing produce are identified in the Brentwood Open Space, Sport and Leisure Assessment (2016)⁵¹ which highlights that providing opportunities for people to grow their own food contributes to sustainability, health and social inclusion.
- 1.277 The Council therefore aims to safeguard land for garden and allotment, promotes local food growing by encouraging development proposals to include spaces for residents and communities to grow their own food. This would enable and support healthy lifestyles, in line with the NPPF (2018, paragraph 91).
- 1.278 There are no currently nationally adopted standards of provision for allotments: the old Planning Policy Guidance Note 17 (PPG17) referred to a standard of 0.2 ha of allotments per 1,000 people whereas the National Society of Allotment and Leisure Gardeners (NSALG) recommends a standard equivalent to 0.23 ha of allotments per 1000 people.
- 1.279 The Brentwood Open Space, Sport and Leisure Assessment (2016)⁵² and the updated calculations in the Brentwood IDP (2018)⁵³ estimate the total amount of allotments in Brentwood Borough to be around 16 -17 ha; based upon a Borough population of 73,601 (2011 Census), this equates to circa 0.22ha of allotments per 1000 people, which is broadly in line with the old PPG17 standard and NSALG recommended standard.
- 1.280 However, the level of growth planned within this Plan period will lead to an increased population and there will be a need to consider how future development can be planned to meet the growing need.
- 1.281 The Council is currently undertaking work to clarify statutory and temporary status of existing Council owned allotments. Once this work is completed, statutory allotments will be subject to protection under the Allotments Act 1925. Further engagement work is also required to understand whether the current allotment infrastructure have opportunities to accommodate additional growth or additional provision will be needed.
- 1.282 Opportunities may be available to provide new allotment space as part of the GBI provision in large and strategic housing development.
- 1.283 When allotments are provided on site as part of a development, developers should pay for the future maintenance and management of the allotments and arrange for a management body to undertake that responsibility for the life of the development. Where, land is transferred to the Borough or Parish Councils, an agreed maintenance contribution should be made. It is expected that the developer will maintain the allotment for twelve months before it transfers it to the Borough or relevant parish council with the payment of a commuted sum to cover 20 years maintenance. Developer contributions for off-site provision could include the enhancement of nearby allotment facilities.
- 1.284 Innovative solutions to small scale food growing space will be encouraged, such as green roofs/walls, re-utilising existing under-used spaces and incorporating spaces for food growing in new schools.

⁵¹ PLC (2016) Sport, Leisure and Open Space Assessment Final Report

⁵² PLC (2016) Sport, Leisure and Open Space Assessment Final Report

⁵³ Brentwood Borough Council (2018) Infrastructure Delivery Plan

- 1.285 Forecast of additional allotment land requirements across the Borough and at selected strategic sites is detailed in the Brentwood IDP (2018).

POLICY BE39: PROTECTING LAND FOR GARDENS

Proposals for development on sites that form part of an existing allotment, garden, or group of gardens will only be permitted where:

- a. the form, height and layout of the proposed development is appropriate to the surrounding pattern of development and the character of the area in line with Policy BE32 Responding to Context;
- b. sufficient garden space and space around existing dwellings is retained, especially where these spaces and any trees are worthy of retention due to their contribution to the character of the area and their importance for biodiversity;
- c. the amenity and privacy of neighbouring, existing and new properties is protected;
- d. provision is made for adequate amenity space, vehicular access arrangements and parking spaces for the proposed and existing properties; and
- e. there is no detrimental effect on the potential comprehensive development of the wider area.

- 1.286 As the definition of Previously Developed Land within the NPPF excludes private residential gardens and allotment, inappropriate development of garden and allotment sites will be resisted. Proposals that are considered to be appropriate on garden or allotment sites in accordance with the criteria set out in this policy will still be assessed against other policies within this Plan.
- 1.287 Allotments and gardens provide a semi-natural habitat for local wildlife and corridors for the movement of wildlife in the urban area. Collectively, they help to mitigate fluvial and surface water flooding in the built-up parts of Brentwood. They form part of an area's development pattern, providing a setting for buildings. They are an important environmental resource and are a vital component of Brentwood's character.
- 1.288 However, it should also be noted that, some forms of redevelopment and infill development, which are well designed and make efficient use of land, will continue to be a valuable additional source of housing supply and need not be inappropriate.

- 1.289 For policies and guidance relating to garden and open space, applicants should refer to Policy BE23: Standards for new housing; Policy BE41: Open Space, Community, Sport and Recreational Facilities; as well as the Brentwood Town Centre Design Guide and Essex Design Guide.

Open Space

- 1.290 Brentwood's existing sport, leisure, public and private open spaces are important valued assets serving communities and visitors.
- 1.291 Access to good quality open space is essential for health and wellbeing. The ability to access local open space across the Borough varies with a lack of provision in some areas. Provision with new development is therefore particularly important in areas where a deficiency has been identified or where new development would give rise to a deficiency.

POLICY BE40: OPEN SPACE IN NEW DEVELOPMENT

New development proposals are expected to provide functional onsite open space and/or recreational amenities and may where appropriate be required to also provide a financial contribution towards new or improved facilities within the Borough.

The amount and type of provision required will be determined according to the size, nature and location of the proposal; quantity and type of open space needed; and existing provision accessible to the proposal. All payments will be in line with the Policy BE41: Open Space, Community, Sport and Recreational Facilities.

A commuted sum may be requested for:

- a. proposals where strategic open space requirements cannot be met within the site;
- a. local and strategic open space in developments of single person households or of dwellings for the elderly (where however some compensating increase in private amenity space may be required); or
- b. a town/ district/ village centre location within Brentwood or where
- c. it is justified by an outstanding urban design approach based on site constraints and opportunities.

All open space provision should be fully equipped to meet the needs of users as agreed by the Council, reflecting acceptable distance and minimum size criteria for different types of open space as set out in the Council's Open Space Standards. Maintenance Plans should be submitted at planning application stage for all new

facilities provided for exercise or recreation purposes. This is to secure quality over the long term and clarify responsibilities from the outset.

- 1.292 The proportion of any site to be set aside (or the contribution to be made for off-site provision) will be assessed with regard to the extent, nature, quality and accessibility of existing provision, the suitability of the site and form of the proposed development.
- 1.293 On larger residential and/or commercial schemes of 50 units and above, the Council will seek at least 15% of the site to be set aside with substantive and usable public open space created. Useable open space is defined as 2000m² in a single mass, giving people a space to be able to play. Developments that are unable to provide 15% substantive and usable public open space will be required to provide an enhanced financial contribution to the creation and/or improvement to existing open space outside of the development site. Developments providing specialised accommodation for the elderly, such as sheltered housing, will be required to provide private amenity space as part of the site and may be required to provide a financial contribution to enhance or improve existing burial ground / service within the Borough.
- 1.294 In some central urban locations site constraints may make new provision difficult, in which case a contribution towards providing or enhancing open space facilities in the Borough will be required.
- 1.295 The Council will require a contribution towards the laying out, provision and future maintenance of play equipment, where open space is provided as part of the overall development. An Infrastructure Delivery Plan and CIL Charging Schedule, will provide further detail on arrangements for securing commuted payments and ongoing maintenance through planning obligations, in line with Policy 10.7 Infrastructure and Community Facilities.

POLICY BE41: OPEN SPACE, COMMUNITY, SPORT AND RECREATIONAL FACILITIES

Within the Borough's urban areas, permission will not be granted for development of land allocated on the Proposals Map as protected Open Space or Local Green Space unless it can be demonstrated:

- a. that alternative and improved provision can be created in a location well related to the functional requirements of the relocated use and existing and future users;
- b. the proposal would relate to the enhancement of the open space, contributing to both the character and amenity of the area; or

- c. the provision of new open space creates no additional displacement within the Green Belt.

All proposals, including the designation of new Local Green Space and landscaping, must be accompanied by a maintenance plan to ensure long-term quality and scheme viability.

There will be a presumption against any development that involves the loss of open space, community, sport, recreation or play facilities, including allotments, except where it can be demonstrated that there is an excess of provision, or where alternative facilities of equal or better quality and convenience will be provided as part of the development.

Where appropriate, the Council will seek provision of community and recreational facilities through the acquisition of land, joint use of existing facilities or by entering into negotiation with private landowners

- 1.296 Policy BE41 is concerned with ensuring good provision of high quality, accessible open space to meet the needs of the local community. Set entirely within the Metropolitan Green Belt, Brentwood has direct access, via the rights of way network, to extensive open areas for informal recreation. Country Parks including Hutton, South Weald and Thorndon provide 324 hectares of informal open space, together with other publicly accessible playing fields, parks, woodlands and wider sporting facilities. The Council aims to retain and enhance existing facilities unless a case can be made for alternative provision to be provided which is equivalent or better in terms of the type of open space, accessibility, quality and convenience.
- 1.297 All proposals, where appropriate, will be required to comply with the Council's open space standards. These take account of recommendations in Open Space and Sports facilities evidence, Brentwood Play Pitch Strategy (2018), Brentwood Open Space Strategy (2008-2018) and Play Strategy (2018).

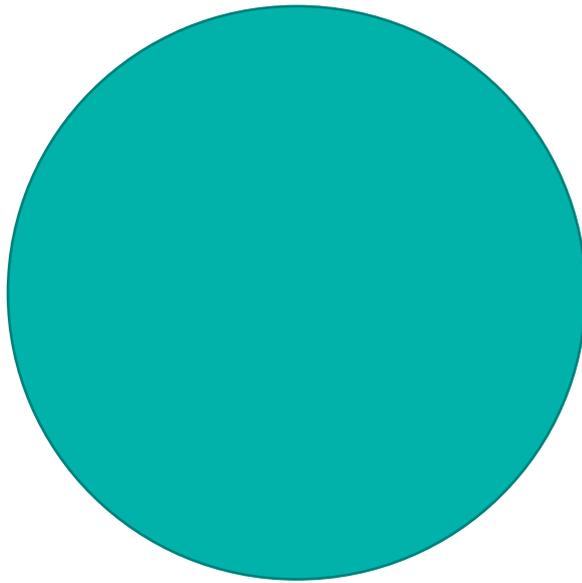


Figure 4: Open Space Standards

1.298 With regard to Children’s Play Space, the Council will seek proposals which meet the Fields in Trust minimum standards as set out in Figure 10.4.

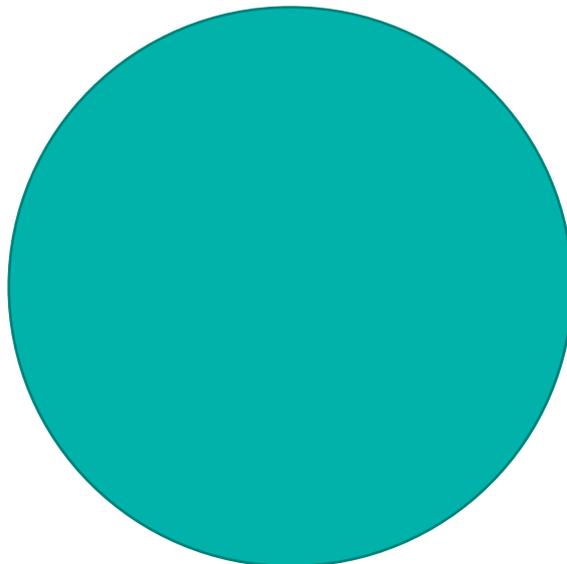


Figure 5: Fields In Trust Children’s Play Space Standards

Heritage

- 1.299 The Brentwood Borough is rich in heritage assets; built, landscape and cultural. Brentwood's organic growth is recognisable by the historic settlement patterns for its villages and hamlets, these are largely sited on routes to and from London and East Anglia and often interspersed by high quality green infrastructure.
- 1.300 Brentwood's landscapes and villages are well documented by the Historic Environment Records⁵⁴, these places and green areas, evidence distinctive characteristics and are often joined by historic thoroughfares which have grown over centuries into main routes following the urban expansion in the town at the end of the C19th.
- 1.301 The Council positively encourages the enhancement and understanding of the significance of heritage assets and apporions great weight to the protection of the Heritage Assets in any decision-making process for future development.

Heritage Assets

- 1.302 In Brentwood Borough, there are more than 500 entries on the statutory list of buildings of architectural or historic interest⁵⁵, 12 Scheduled Monuments and 2 Grade II* Registered Parks and Gardens. In addition, the Borough contains 13 designated Conservation Areas.
- 1.303 Understanding the significance of heritage assets whether of national designation or local significance is fundamental to their care, protection and long-term conservation. The term Heritage Assets refers to those buildings, places or areas of national importance, registered on the Statutory list, but also includes those buildings, places or areas that are of local significance, these are referred to as non-designated heritage assets.
- 1.304 Designation affords a building, site or area of special interest and value which is protected under law or policy.
- 1.305 Non-designated heritage assets can include buildings, places, lanes or areas of cultural and/or local significance which whilst not nationally designated make a positive contribution to the Historic Environment and its understanding. In decision making, proposals which affect locally listed heritage assets and/or their setting, must take into account the strong requirement for their retention and the enhancement of their significance locally.
- 1.306 Locally listed buildings within the borough are to be recorded on a live database. Whilst the Local Listing Programme is at embryonic stage, this list and it's future enrichment is essential in conserving local distinctiveness and community engagement in the historic environment. The Council support the ethos of local listing and the opportunities it brings to

⁵⁴ <https://historicengland.org.uk/advice/technical-advice/information-management/hers/>

⁵⁵ <https://historicengland.org.uk/listing/the-list/>

engage a diverse range of stakeholders into the management and education of the local historic environment.

- 1.307 The Council will apply a level of protection to and keep under review its heritage assets in order to protect or enhance their special architectural or historic interest. A high standard of design for all new development affecting Heritage Assets and their setting is required.

POLICY BE42: CONSERVATION AND ENHANCEMENT OF HISTORIC ENVIRONMENT

All development proposals that affect heritage assets and their settings will be required to:

- a. conserve, sustain and enhance designated and non-designated heritage assets including views into and out of conservation areas and their settings; ensure new development is sensitively sited and integrated in accordance with advice in accordance with national policy and guidance;
- b. submit a Heritage Statement providing sufficient information on the significance of the heritage asset, the potential impacts of the proposal on their character and setting, how a proposal has been modified to mitigate harm; where archaeological potential is identified this should include an appropriate desk-based assessment and, where necessary, a field evaluation; and
- c. provide clear justification for any works that would lead to harm or substantial harm to a heritage asset through detailed analysis.

Proposals that make sensitive use of heritage assets, particularly where these bring redundant or under used buildings or areas, especially any on English Heritage's at Risk Register, into appropriate use will be encouraged.

When considering proposals for development that affect non-designated heritage assets, the Council will take into account the scale of any harm or loss and the significance of the heritage asset as set out in accordance with national policy and guidance.

- 1.308 When submitting planning applications, applicants are required to describe the significance of any heritage assets affected, together with a schedule of works analysing the impact of the proposal on the form, fabric and setting of the heritage asset and any features of historic or architectural interest. The level of detail needed should be proportionate to the scale and nature of the proposal and the importance of the asset itself. As a minimum the relevant historic environment record should have been consulted and the heritage assets assessed, using appropriate expertise where necessary.

- 1.309 The NPPF is clear that when considering the impact of a proposed development on the significance of a designated heritage asset, the more important the asset, the greater the weight should be given.
- 1.310 Where a development proposal will lead to less than substantial harm to the significance of a designated heritage asset, this harm should be weighed against the public benefits of the proposal.
- 1.311 Early engagement with the Council's Historic Buildings Advisor is encouraged through pre-application consultation.

POLICY BE44: LISTED BUILDINGS

Proposals for development affecting or within the vicinity of a Listed Building should be accompanied by a Heritage Statement that describes the significance of the Listed Buildings affected and includes full details of the siting, design, access arrangements and external appearance of the development so that it is possible to assess whether the proposals are sympathetic to its character and setting.

Changes of use of Listed Buildings and any associated works of alteration, including external illumination, may be permitted where this would contribute economically towards the restoration, retention or maintenance of the Listed Building and/or group of buildings, while protecting the historic, spatial or structural integrity of the building or its setting.

Proposals for the alteration or extension of Listed Buildings will only be permitted where these are sympathetic to the buildings' character and appearance, and whether features of special architectural or historic interest are preserved, restored or complemented.

Proposals involving the partial demolition or full demolition of a grade II Listed Building will only be permitted in exceptional circumstances; development involving the partial demolition or full demolition of a grade I or II* Listed Building will only be permitted in wholly exceptional circumstances⁵⁶, where all of the following criteria are met:

- a. The building cannot be used for its existing, previous or original purpose or function; nor can it be changed to any reasonable and viable use;
- b. Conservation by grant-funding or some form of charitable or public ownership is demonstrably not possible;

⁵⁶ Paragraph 194, NPPF (2018).

- c. The historic character or appearance of the main building would be maintained or improved by the demolition of a curtilage building(s);
- d. The harm or loss is outweighed by the benefit of bringing the site back into use;
- e. Substantial benefits to the community would derive from the nature, form and function of the proposed development; and
- f. Demolition would not result in the creation of a long-term cleared site to the detriment of adjacent Listed Buildings.

Where development is authorised subject to the above criteria, permission will be subject to agreement that any consequential demolition shall not be carried out until all relevant details of the proposed development have been approved and a contract has been entered into for its subsequent execution.

- 1.312 Listed Buildings are defined under Section 1 of the Planning (Listed Buildings and Conservation Areas) Act 1990, as “buildings of special architectural or historic interest”. The Secretary of State is required to compile or approve Listed Buildings for the guidance of Local Planning Authorities. There are 512 Listed Buildings⁵⁷ within the Borough, consisting of:
- 12 buildings of Grade I (buildings of exceptional interest)
 - 27 buildings of Grade II* (particularly important buildings of more than special interest)
 - 473 buildings of Grade II (buildings of special interest, which warrant every effort being made to preserve them).
- 1.313 This policy addresses the statutory considerations of the Planning (Listed Buildings and Conservation Areas) Act 1990 which provides specific protection for buildings and areas of special architectural or historic interest as well as relevant polities within the NPPF.
- 1.314 Where there is evidence of deliberate neglect of or damage to a heritage asset the deteriorated state of the heritage asset will not be taken into account in any decision.
- 1.315 Works such as the demolition, alterations (both internal and external) or extensions that would affect a Listed Building’s character will require Listed Building Consent.
- 1.316 Proposals affecting Listed Buildings should refer directly to the statutory list of Buildings of Special Architectural or Historic Interest (www.historicengland.org.uk). Under the Planning (Listed Buildings and Conservation Areas) Act 1990 owners have a responsibility to look

⁵⁷ The current list for Brentwood was approved on 9 December 1994, following a comprehensive resurvey of buildings in the Borough, originally consisted of 512 Listed Buildings.

after Listed Buildings in order to prevent deterioration and damage. The Council will intervene, where necessary, by issuing an Urgent Works or Repairs Notice.

- 1.317 National policy and guidance promotes the use/reuse of heritage assets for viable uses consistent with their conservation and the positive contribution that they can make towards economic vitality. Changes of use of a Listed Building need to be compatible with the building's character and should not have an adverse impact on its context. Proposals for the change of use of a Listed Building in the Green Belt will also be assessed against development in the Green Belt policies within this Plan.
- 1.318 Proposals will be required to take a practical approach towards the alteration of Listed Buildings to comply with the Equality Act 2010 and subsequent amendments, provided that proposed alterations and changes to access are sympathetic and ensure the building's special interest remains unharmed. Applicants should refer to the Historic England Easy Access to Historic Buildings (2015) as a basis for practical guidance.
- 1.319 The Council intends to compile a Local List of buildings which contribute positively to the character of the area due to their townscape value and merit, type of construction, architectural quality or historic association. The Council will apply similar levels of protection to its locally designated heritage assets and their settings in line with national policy and guidance to ensure a high standard of design for all new development affecting the character or setting of its built, natural and historic environment. Whether a building is Locally Listed will be a material consideration in determining planning applications in order to retain important original features and fabric, and control alteration or extension to maintain the character of the buildings in recognition of their contribution to local distinctiveness, sense of place, identity and character.

POLICY BE44: CONSERVATION AREAS

Buildings or parts of buildings, open spaces, trees, vistas or other features which make a positive contribution to the character, appearance or significance of the Conservation Area should be preserved or enhanced.

All development or redevelopment in or within the vicinity of a Conservation Area will only be permitted where the Council is satisfied that:

- a. Development does not adversely affect the streetscape, skyline or significant views;
- b. The development is proportional in scale, and complementary in design, with the adjoining buildings and wider area;
- c. Where any or part demolition is proposed, the structure makes no material contribution to the character or appearance of the area, or the structure is

considered to make a negative contribution to the appearance of the Conservation Area;

- d. Where a change of use is proposed, there will be no adverse effect on the appearance or setting of the building; and
- e. Where an alteration is proposed, it is appropriate and sympathetic in design, scale, materials and colour to the rest of the building.

Proposals for any scheme, including alteration or replacement of shopfronts within a designated Conservation Area must include a historic and architectural evaluation within the Design and Access Statement. The level of detail provided should be proportionate to the importance of the heritage asset. Proposals will be expected to be of a high quality design and detailed information will be required.

Outline planning permission will not be given for new buildings in a Conservation Area.

- 1.320 Conservation Areas are defined under Section 69 of the Planning (Listed Buildings and Conservation Areas) Act 1990, as “Areas of Special Architectural or Historic Interest the character or appearance of which it is desirable to preserve or enhance”. With a rich and varied cultural heritage, Brentwood has 13 designated Conservation Areas within the Borough. Conservation Areas are shown on the Policies Map.
- 1.321 This policy addresses the statutory considerations of the Planning (Listed Buildings and Conservation Areas) Act 1990. It should be read in conjunction with Policy BE42 Conservation And Enhancement Of Historic Environment and Brentwood’s Conservation Area Appraisals.
- 1.322 The Council will seek to promote high quality new development of exceptional design that makes a positive contribution to local character and respects the historic context. Development proposals in a Conservation Area should make reference to the relevant Conservation Area appraisal.
- 1.323 There will be a presumption against the demolition of buildings or other features that positively contribute to the character or appearance of a Conservation Area, in the absence of detailed and acceptable proposals for replacement development. Use of non-traditional materials, will not normally be permitted on, or in proximity to, Listed Buildings or in Conservation Areas. For advice on this matter, applicants should consult local expertise and refer to published guidance, such as Valuing Places: Good Practice in Conservation Areas (2011) by English Heritage.
- 1.324 In order to ensure a high standard of design and materials, outline applications will be accepted.

POLICY BE45: LOCAL HERITAGE ASSETS

There is a general presumption in favour of the retention of local heritage assets, including buildings, structures, features and gardens of local interest as detailed in the Council's Local List. In addition, the Council will conserve the traditional landscape and nature conservation character of Protected Lanes, including their verges, banks, ditches and natural features such as hedgerows and other structural elements contributing to the historic features of the lanes.

Where planning permission is required, proposals will be favourably considered where they retain the significance, appearance, character or setting of local heritage assets.

Any proposals that would have a materially adverse impact on the physical appearance of Protected Lanes or generate traffic of a type or amount inappropriate for the traditional landscape and nature conservation character of a Protected Lane, will not be permitted.

Local List

- 1.325 Locally Listed buildings will be a material consideration in determining planning applications: the retention of important features and fabric and the impact of proposals upon the local significance and understanding of a locally listed building will be a material consideration.
- 1.326 There are a number of country lanes and byways which are of historic and landscape value, and which make an important contribution to the rural character of certain areas. The Council intends to protect these lanes and byways by preserving, as far as possible, the trees and hedgerows, banks, ditches and verges which contribute to their character, and by resisting development proposals which have a detrimental effect upon them.

Protected lanes

- 1.327 The greater part of the road network in the Essex countryside derives from at least as far back as the medieval period. Much of it undoubtedly existed in Saxon times. These lanes are part of what was once an immense mileage of minor roads and track-ways connecting villages, hamlets and scattered farms and cottages. Many were used for agricultural purposes, linking settlements to arable fields, grazing on pasture, heaths and greens; and other resources such as woodland and coastal marsh.
- 1.328 Before metalled road, with wide verges and linear roadside green with ditches and interspersed with ponds for transporting, feeding and watering livestock on route to market. These lanes are an important part of the Essex landscape, providing insight into the development of a landscape and the relationship of features within it over time. They have considerable ecological value as habitats for plants and animals, serving as corridors for movement and dispersal for some species and acting as vital connections between other habitats; and promoting well-being.

1.329 The Protected Lanes in Brentwood are listed below:

National Street Gazetteer Name (NSG)	Location	Lane ID
Days Lane	Doddinghurst	BRWLANE1
Wenlocks Lane	Blackmore	BRWLANE2
Lincolns Lane	Coxtie Green	BRWLANE3
Hay Green Lane	Wyatt's Green	BRWLANE4
Mill Lane	Navestock Health	BRWLANE5
Sabines Road	Sabines Green	BRWLANE6
Back Lane	Doddinghurst	BRWLANE7
Dark Lane	Great Warley	BRWLANE8
Sandpit Lane	South Weald	BRWLANE9
Little Hyde Lane	Fryerning	BRWLANE10
Mill Green Road	Mill Green Common	BRWLANE11
Ingatestone Road	Mill Green Common	BRWLANE13
Ivy Barns Lane	Mill Green Common	BRWLANE12

Figure 5.4: Protected Lanes in Brentwood

1.330 Recent assessment of the Protected Lanes⁵⁸ and update⁵⁹ in Brentwood has confirmed that these features remain and in the majority of instances, the designation for protection is recommended for retention. One lane has been identified as at risk, partly due to damage as a result of its increased use as a cut through in the recent past when the Ongar Road suffered a major collapse, that is Sandpit Lane. The Council will be taking a watching brief on this lane, aware that some damage has already taken place. Brentwood borough is

⁵⁸ Brentwood Borough Protected Lane assessment (2016) Essex County Council

⁵⁹ Brentwood Borough Protected Lane assessment update (Letter) (2018) Essex County Council

therefore retaining the designation of all of the Lanes with a review proposed for the next edition of the Local Plan.

- 1.331 In line with other policies within the local plan, material increases in motorised traffic using a Protected Lane due to development proposals must be assessed and action/infrastructure to influence user behaviour and encourage more sustainable modes of transport, will be required.
- 1.332 The Council would consider exploring options and partnerships for influencing user behaviour and applying intelligent and positive measures of highway management that will serve to encourage local journeys to be made on bicycle or foot, and for recreation, and reduce the impact of vehicles on the historic fabric of lanes, whilst maintaining their local character.

Archaeological Heritage

- 1.333 The historic environment of Brentwood has developed through a history of human activity that spans over 450,000 years. Much of the resource lies hidden beneath the ground in the form of highly sensitive and non-renewable archaeological deposits. Other elements such as the historic landscape, the pattern of field, farms, woods and historic settlements which characterise the Borough are a highly visible record of millennia of agriculture, industry, settlement and commerce.
- 1.334 Brentwood has a large number of sites of archaeological importance that are worthy of preservation for the future. Essex Historic Environment record identifies 636 sites within the Borough of known archaeological interest. These include isolated discoveries like Stone Age flint axe, below ground evidence of prehistoric, Roman, Saxon and medieval occupation and upstanding post medieval and modern structures. Of known sites, 12 are Scheduled Ancient Monuments, maintained by the Secretary of State under Section 1 of the Ancient Monuments and Archaeological Areas Act 1979, ensuring ultimate responsibility for the preservation, treatment, repair and use of each monument.

POLICY BE46: SCHEDULED MONUMENTS AND ARCHAEOLOGICAL REMAINS

The desirability of preserving a Scheduled Monument or their equivalent and its setting is a material consideration in the determination of planning applications. Planning permission will not be permitted for development which would adversely affect a Scheduled Monument, or other locally or nationally important sites and monuments, or their settings.

A full Archaeological Assessment must be included with any planning application affecting areas of known or suspected archaeological importance to ensure that provision is made for the preservation of important archaeological remains. In

areas considered less likely to have significant remains, full investigation or a watching brief may be required by planning condition.

Where proposals affect archaeological sites and other designated assets, preference will be given to preservation in situ unless it can be shown that archaeological mitigation through recording, assessment, analysis report and deposition of archive is more appropriate.

Any development that may affect archaeological remains will need to demonstrate the likely impact upon the remains and the proposed mitigation to reduce that impact.

- 1.335 For applications affecting a Scheduled Monument and its setting, early stage consultation with English Heritage will be required to gain scheduled monument consent. For non-statutory historic environment assets applicants should consult the Council and as appropriate, Essex County Council Historic Environment advisors, regarding the nature, setting and management of the Borough's historic environment.
- 1.336 As a finite and non-renewable resource, archaeology can become highly fragile and vulnerable to damage or destruction. The Council will adopt a presumption against proposals which would harm the setting of archaeological remains of national or local importance, whether scheduled or not.
- 1.337 In cases where development will impact upon sites of known archaeological interest or potential, the results of a field evaluation/assessment will be necessary prior to the determination of the application. Applicants will be required to arrange for an archaeological investigation setting out appropriate measures of protection, management or mitigation including excavations and recording prior to development.
- 1.338 This policy should be read in conjunction with Policy BE42 Conservation and Enhancement of Historic Environment.



1. Prosperous Community

Delivering Economic Growth

- 1.1 Brentwood is an attractive business location with a high-quality environment, within close proximity to London, a well-qualified workforce and good transport links. The Borough has a diverse economic base and total employment in the Borough has risen to 43,200 in 2016. The Borough is well known for its entrepreneurial culture with above average rates of business start-ups and is home to a number of major national firms whose regional headquarters are located within the Borough.
- 1.2 Figure 6.1 depicts how well Brentwood is placed in terms of transport links to surrounding centres in Essex, London and Kent, legacy opportunities from the Queen Elizabeth II Olympic Park, and airports at Stansted and Southend. The Elizabeth Line will improve links with Central London and open new direct links to West London and Heathrow airport. The Borough is close to competing retail centres such as Basildon, Romford and Chelmsford, as well as Lakeside, Bluewater, and Stratford City Shopping Centres.

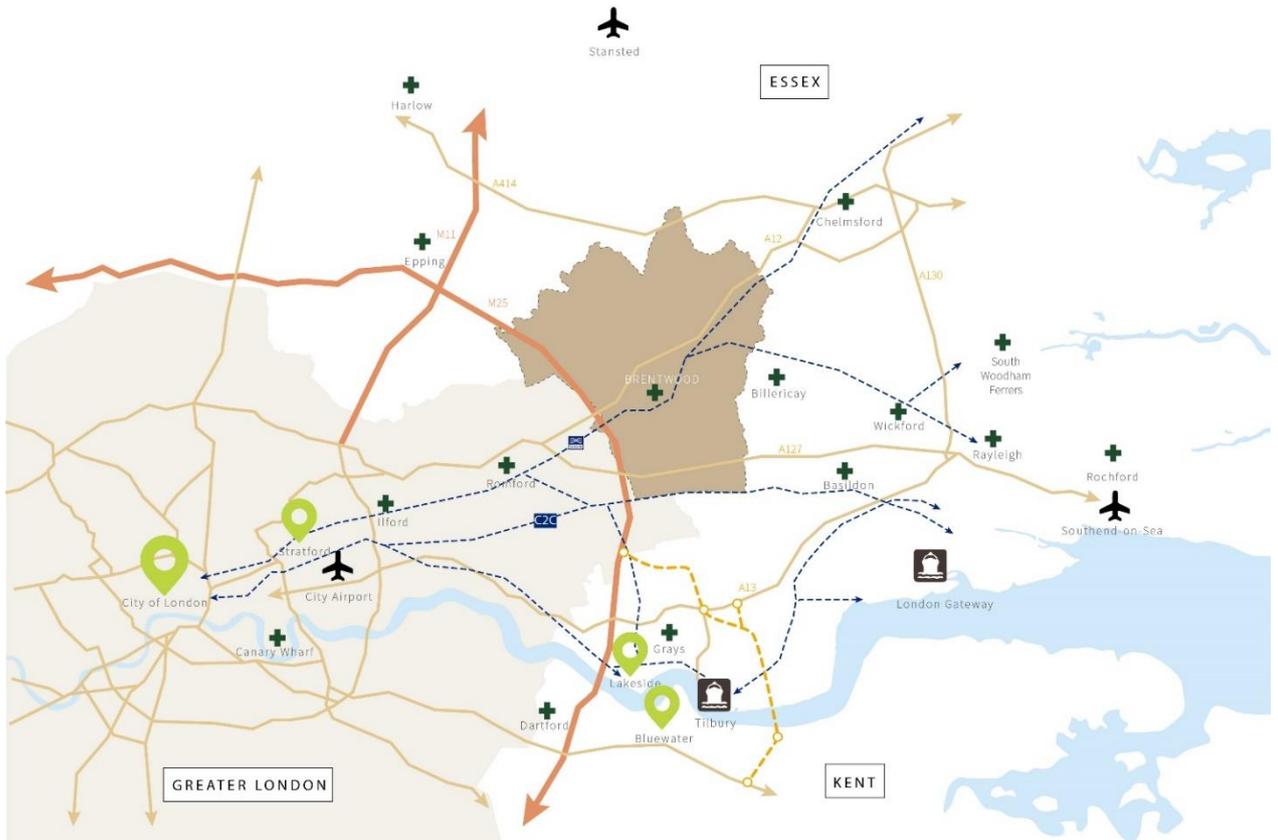


Figure 6.1: Brentwood in Regional Context

1.3 The Council’s Economic Strategy sets out a series of economic aims and strategic priorities which are reflected in the vision and strategic objectives of the local plan:

Economic Aims:

- A1. Promote a mixed economic base and a discerning and sustainable approach to economic growth;
- A2. Encourage high value, diverse, employment uses that will provide a significant number of skilled and high-quality jobs;
- A3. Encourage better utilisation, upgrading and redevelopment of existing land and buildings; and
- A4. Enable the growth of existing business, the creation of new enterprises and encourage inward investment.

Strategic Priorities:

- P1. Support business development and growth;
- P2. Facilitate and deliver skills and employability support;
- P3. Facilitate and encourage business workspace, infrastructure and inward investment;

- P4. Facilitate and support stronger and more vibrant town & village centres;
 - P5. Develop and support the borough's rural economy; and
 - P6. Promote Brentwood borough as a place to visit and invest, encouraging the visitor economy.
- 1.4 To maximise opportunities for economic growth and development, the Council is working closely with the South East Local Enterprise Partnership (SELEP), the Greater Essex Business Board (GEBB) and the Brentwood Business Partnership (BBP). The Council's Economic Strategy, and Economic Futures Report¹ provides the local evidence to support the relevant Local Plan policies.



Figure 6.2: Brentwood and South East Local Enterprise Partnership

- 1.5 To meet future needs and maintain a competitive successful local economy, we will plan for new jobs and new homes. We will work with existing businesses through partnerships and attract new businesses by ensuring the Borough remains an attractive place to work. The importance of striking the right balance between meeting development needs and retaining our Borough of Villages character is critical when considering the future of the local economy.

¹ Lichfields (2018) Brentwood Economic Futures Report, available at: <http://www.brentwood.gov.uk/pdf/29012018122226000000.pdf>

POLICY PC01: CULTIVATING A STRONG AND COMPETITIVE ECONOMY

The Council and its partners will seek to maintain high and stable levels of local economic growth, enabling the Borough's economy to diversify and modernise through the growth of existing business and the creation of new enterprises. Support will be given to proposals that secure job growth with 'high value' business and retail.

This will be secured by:

- a. improving access to a range of employment opportunities for Borough residents;
- b. providing sufficient employment and industrial space in sustainable locations to support economic development and regeneration;
- c. intensification of vacant and underutilised employment floorspace and sites and the regeneration of previously developed land in sustainable locations;
- d. renewal and improvement to the quality of business premise and office space of different sizes;
- e. enhancing and protecting the important role of small and medium sized commercial enterprises;
- f. directing major new retail, office and leisure investment to the Borough's Designated Centres according to their significance on the retail hierarchy, stimulating improvement and regeneration;
- g. supporting the Borough's rural economy and growing agricultural enterprises;
- h. maintaining current tourist attractions and encouraging new opportunities to increase the number of visitors to the Borough; and
- i. maximising the value of existing and future public transport, walking and cycling network, to support economic activity in line with **Policy X**.

- 1.6 The NPPF provides a clear position on the need to build a strong competitive economy. The Council seeks to promote a mixed economic base and a discerning approach to economic growth. High value employment uses will be particularly encouraged. This will tend to be business uses such as offices with related high-tech manufacturing floorspace that provide a significant number of skilled jobs, rather than large distribution warehouses that employ very few people.

- 1.7 A diversity of uses will be encouraged with an emphasis on good quality, sympathetic and efficient use of land and buildings. This approach recognises and responds to the Borough's strengths, such as its skilled workforce, attractive environment and good transport links. It also takes account of land and infrastructure constraints. Ongoing prosperity in the future will rely upon safeguarding those features that comprise Brentwood's distinctive offer and make the Borough a destination of choice today. Mixed-use schemes that include retail uses should comply with the retail hierarchy set out in Policy PC08 Retail Hierarchy and Designated Centres.
- 1.8 Opportunities for higher density business development will also be favourably considered in suitable locations to relieve pressure to develop in less sustainable locations. This will be encouraged in key gateway locations. (Refer to Figure 3.3: Key Gateways). This includes utilising existing employment space, developing on previously developed land and encouraging smart working practices.
- 1.9 Improvements in technology and working arrangements have enabled more flexible working, freeing up existing employment floorspace. This trend is expected to continue in future with more remote and home working. Businesses with underused floorspace will be encouraged to make this available for use by other business users.
- 1.10 In order to thrive in today's market place, business is reliant on good connectivity and fast broadband speeds to support the running of their business. Therefore, applicants should provide high quality communications infrastructure in line with Policy BE10: Connecting New Developments to Digital Infrastructure.
- 1.11 In rural areas, the Borough has seen an above average growth in agriculture since 1998. Rural enterprise is fundamental in maintaining and developing rural communities by securing appropriate business, inward investment, jobs and wealth in rural areas and is a vital part of the local economy. Rural enterprise and development which supports its expansion should be encouraged providing there are no severe adverse impacts on the environment and development is sympathetic to its rural surroundings.
- 1.12 Rural enterprise refers to land-based industries, such as agriculture and forestry, enabling rurally based businesses, tourism and the environment. It is recognised that some activities in rural areas might equally well be carried out in a built-up area. The key difference is their impact and whether the activity in question, due to its scale and nature has an urbanising effect or can be sensitively accommodated with no adverse impact on the countryside or Green Belt. Stewardship of the countryside, soil and landscapes has traditionally rested with farmers and therefore sympathetic diversification schemes which support this sector should be encouraged in recognition of these wider benefits.

POLICY PC02: JOB GROWTH AND EMPLOYMENT LAND

Provision is made for 5,000 additional jobs to be provided in the Borough over the Plan period at an average rate of 250 per year.

Job growth will be provided for by:

- a. a total of circa 48.89 ha of new employment land (B-use) allocations and continued support for existing employment sites and appropriate redevelopment where appropriate; and
- b. retail floorspace provision and policies supporting retail, leisure and commercial growth.

Areas allocated for employment purposes are set out in Policy PC03: Employment Land Allocations and identified on the Policies Map.

- 1.13 A range of economic evidence has informed this employment land and job growth need, including the Brentwood Economic Futures Report (2018), and Strategic Housing Market Assessment (2018).

New Jobs

- 1.14 Policies are required to plan for future jobs growth on our employment land and ensure new employment land is provided where needed. For the purposes of planning policy, the simplest way to measure and plan for new job creation is through planning use classes. B-Class uses generally comprise employment land types, such as B1 Business (offices, research and development, light industry appropriate in a residential area), B2 General industrial, and B8 Storage or distribution.
- 1.15 The Borough has recorded strong levels of job growth, the number of B-Class jobs has increased by 40% over the last 17 years. This employment growth has been driven by consumption sectors including residential care and social work, business services, education, healthcare and construction. Job losses have been recorded within public administration and defence, utilities, accommodation and food services and retail.
- 1.16 According to *Enterprising Essex: Meeting the Challenge* (Essex County Council, 2018)², potential occupiers looking for office space in the North East quadrant of the M25 would most likely locate to Chelmsford or Brentwood, which are seen as more established office locations. Reflecting the Borough's desirable location, high quality and distinctive locational offer, the Council's preference is for efficient land use and provision for high value business.

Functional Economic Market Area

- 1.17 Economic evidence includes an assessment of the Functional Economic Market Area (FEMA) for the Borough, which considers a number of evaluation factors including travel to work areas, commuting flows, the commercial property market area; retail market areas, local economic partnership areas and strategic transport routes to define the key economic linkages and spatial relationships. Producing a FEMA is not an exact science and often

² http://www.essexgrowth.co.uk/media/1036/eec_final_report_march-2018.pdf

represents just a snapshot in time but is useful in indicating the Borough's broad core economic geography and connections. Figure 6.1 sets out the Brentwood FEMA.

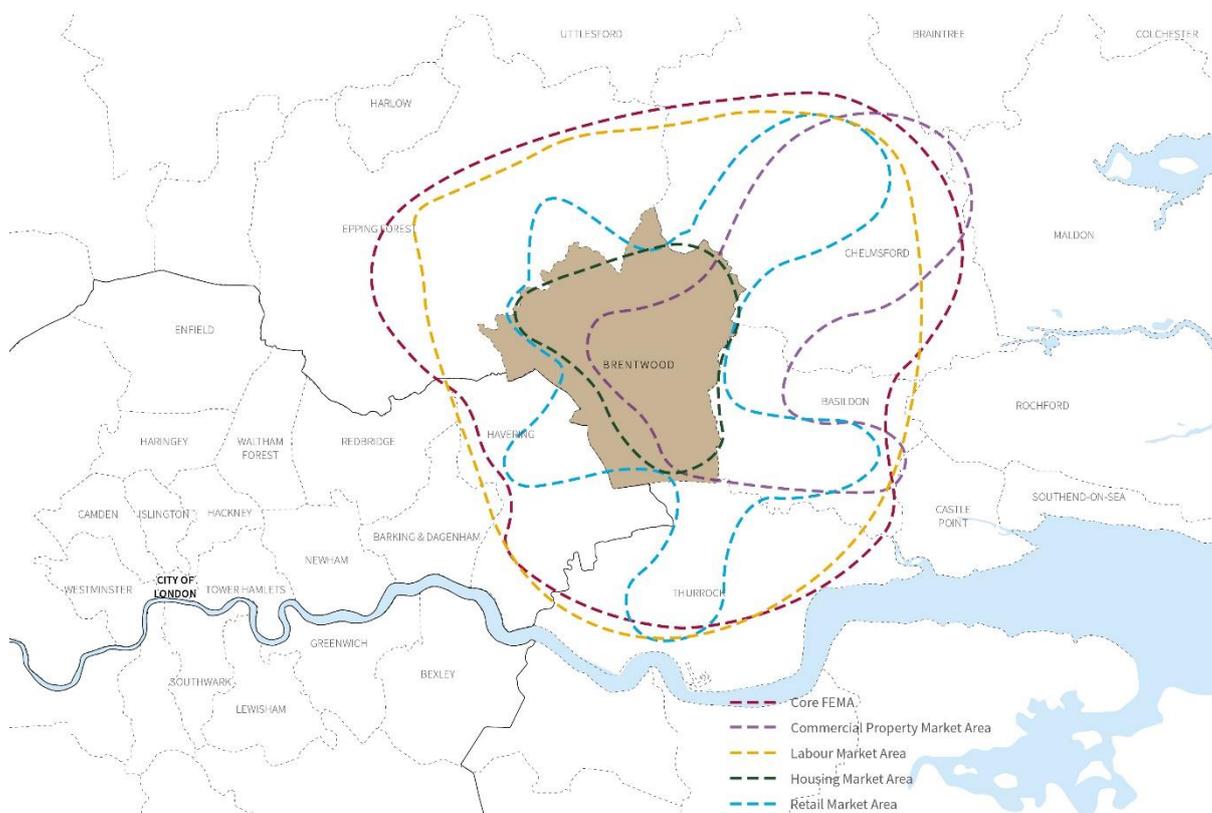


Figure 6.1: Brentwood Functional Economic Market Area

1.18 In considering site employment site allocations and growth, the Council has also taken into account commercial agent feedback on employment sites to ascertain the level of market interest, views on strategic locations and commentary on employment land take-up and overall deliverability.

Employment land provision

1.19 The calculation of new B-use employment land required to inform Draft Plan allocations is summarised below:

- i. The proposed amount of land the Council needs to provide to achieve sufficient growth in jobs range from 8.1ha to 20.3ha (Economic Futures Report, 2018)³.
- ii. Redeveloping existing employment land in central or residential locations for new homes (i.e: Wates Way Industrial Estate, Brentwood; Council Depot, Warley; Ford offices, Eagle Way and West Horndon Industrial Estates, West Horndon), means the loss of almost 21.01 hectares of employment land that will need to be re-provided.
- iii. Before arriving at a final employment land requirement consideration has also been given to the forecast loss of existing employment allocations through structural change,

³ Economic Futures Report. Lichfield. (2018)

planning permissions and changes to permitted development rights allowing office to residential conversions. This loss of employment space equates to about 4.65ha.

- iv. These elements combined result in a total additional employment land requirement range from 33.76 to 45.96 ha.

1.20 Overall a total of circa 48.89 ha of new employment land is proposed to be allocated. It should be noted that suggested employment allocations exceed requirements. At a high-level, the amount of employment land allocations is broadly sufficient to ensure that the Council meets its overall forecast employment land needs (forecast new needs and losses from allocations and structural change). It is also recognised that the future restructuring of employment sites and businesses may change floorspace requirements.

Employment Land (ha)				
Uses	Scenario A: Experian	Scenario B: EEFM	Scenario C: OAN (380)	Scenario D: Past rates
Offices (B1a/b)	9.4	7.7	5.6	0.4
Manufacturing (B1c/B2)	4.4	0.1	3.1	3.5
Warehousing (B8)	6.5	0.7	4.4	4.2
Total	20.3	8.5	13.1	8.1

Figure 6.2: Gross Employment Land Requirement Scenarios

New Requirements	(ha)
Forecast requirement for employment land (B Class Uses)	+ 8.1 ha to 20.3 ha
Forecast loss of employment land by re-allocations for other uses	+ 23.87 ha
Forecast loss of existing employment allocations through structural change, changes in allocation threshold and permitted development	+ 3.17 ha
Combined Requirement	→ 33.76 ha to 45.96 ha

Figure 6.3: Employment Land Need

POLICY PC03: EMPLOYMENT LAND ALLOCATIONS

Within those areas allocated for general employment and office development, set out in Figure 6.4 and on the Policies Map, the Council will seek to achieve and retain a wide range of employment opportunities. Redevelopment or change of use of business, office, general industry and distribution for non Class B uses will only be permitted where:

- a. the proposal is for other non-residential uses that provide significant employment with no reasonable prospect of locating elsewhere in the Borough, and there is no identified need for the site or buildings for Class B uses;
- b. the proposal is wholly for affordable housing, the site is vacant, and development would not prejudice continuation of adjacent employment uses;
- c. the proposal is for any other use and the application is supported by a statement of efforts made to secure re-use for Class B1-B8 or similar uses and other non-residential use that provides employment, which evidence demonstrates there is no realistic prospect of the site or buildings being used or re-used, including through redevelopment, for these purposes; or
- d. the site or buildings would be physically unsuitable for re-use for Class B1-B8 or similar use, even after adaptation (including sub-division into smaller units), refurbishment or redevelopment, in terms of siting, design, access, layout and relationship to neighbouring buildings and uses.

Site Ref	Site Name	Area (ha)
Existing Allocated Employment Land		
112	Childerditch Industrial Estate	11.25
113	Hallsford Bridge Industrial Estate	3.41
114	Hubert Road Industrial Estate	3.78
045	Hutton Industrial Estate	10.48
115	Brook Street Employment Area	1.25

116	Warley Business Park (excl. Regus)	2.5
117	Ford Offices, Eagle Way, Warley	2.0
118	BT Offices, London Road, Brentwood	3.5
119	Canon Offices, London Road, Brentwood	0.45
020,021&152	West Horndonn Industrial Estate	2.0
121	Mellon House, Berkley House and 1-28 Moores Place, Brentwood	0.35 (est)
	Sub-Totals	40.97
Existing Employment Sites in the Green Belt		
108	The Old Pump Works, Great Warley Street	0.79
111	Upminster Trading Park	2.6
228	Peri Site, Warley Street, Great Warley	5.36
321	McColls Headquarters, Ongar Road	1.6
Existing Employment Sites Not Previously Allocated		
101B	Brentwood Enterprise Park (land at Codham Hall)	9.01
112D&E	Childerditch Industrial Estate	3.52
	Sub-Totals	18.89
New Employment Land Allocations		
101A	Brentwood Enterprise Park (M25 Junction 29 works)	25.85
079C	Land adjacent to Ingatestone by-pass (part bounded by Roman Road)	2.06
112D&E	Childerditch Industrial Estate	5.87
101D	Codham Hall (New extension)	0.61
187	Land at East Horndon Hall	5.5
158	North of A1023	2.0
200	Dunton Hills Garden Village Strategic Allocation	5.5
	Sub Totals	47.39

Figure 6.4: Employment Site Allocations

Existing and Regularised Employment Sites

- 1.21 The presumption for existing and proposed employment sites for general employment and office development shall be for existing uses to be retained and that proposals entailing loss of employment premises and sites without replacement will be resisted. The Council will work with businesses within these areas to encourage them to adapt and respond to changing economic conditions to support business growth and ensure continuing economic vitality.
- 1.22 Where an application is made under PC03 clause (c), the applicant should provide information regarding:
- a) Length of time the property has been unused for employment purposes;
 - b) Period during which it has been actively marketed for such purposes, which includes the possibility of redevelopment and provides evidence of marketing (not normally less than 24 months). Evidence should show where the property has been publicly marketed including publications and property journals as well as clear advertisement on site;
 - c) Prices at which the land and buildings have been marketed during this period, which should reflect similar property in the locality;
 - d) A list of all expressions of interest during this period; and
 - e) An evaluation of why it is considered that the property has failed to attract interest from potential occupiers or for redevelopment for B Class use.

New Employment Allocations

- 1.23 Informed by the spatial strategy, the selection of employment sites aims to retain the Borough's character and encourage employment growth in suitable available locations. In employment terms it is also beneficial to consider modern business needs, such as access to the transport network. The selection process can be summarised as followed:
- a. Brentwood and Shenfield will be the focus to attract economic growth in the Central Brentwood Growth Corridor given their excellent geographic position. From the available sites coming forward through the HELAA process, new employment land is proposed at Ingatestone where the southbound A12 junction with the village creates suitable land for new employment premises. This will help create a range of choice for employment land and encourage competition from existing premises to improve the quality of the local offer.
 - b. The opportunity is taken to capitalise on the strategic connections of the South Brentwood Growth Corridor to key economic centres in the region (including Tilbury Port, Southend Airport and those in Greater London), by:
 - a) redeveloping brownfield land at Brentwood Enterprise Park (Site E01);
 - b) extending employment land around Childerditch Industrial Estate;

- c) providing new employment land at land south of East Horndon Hall (Site E04); and
 - d) delivering mixed-use employment opportunities within Dunton Hills Garden Village as part of a self-sustaining new community.
 - e) Considering that larger villages are in a position to accommodate a limited amount of employment and retail development the emphasis will be on the provision of local services.
- 1.24 The proposed land at Brentwood Enterprise Park and land south of East Horndon Hall will accommodate mixed B-uses. The excellent access onto the strategic highway network, makes them a very desirable place for certain businesses. In addition, the size of Brentwood Enterprise Park provides benefits by way of supplying for a large amount of employment need while bringing along new infrastructure and supporting services. Brentwood Enterprise Park will provide an opportunity for high-end modern premises at a key gateway to the Borough and into Essex. Appropriate accompanying uses will be considered appropriate where these meet local needs, such as hotel and associated restaurant options. Retail will not be considered appropriate, in line with the retail strategy and sequential approach. Specific site policies for the Enterprise Park are within Policy E01, in Chapter 8.
- 1.25 The Lower Thames Crossing will open up opportunities for goods and services to flow more easily between Brentwood and the area of Kent and beyond across the Thames, strengthening links to a market area that is currently less accessible from the Borough. This could extend the Borough's FEMA to the south into Kent. However, it should be noted the crossing would be most beneficial to distributors who may use it to avoid congestion at the Dartford Crossing. For the Borough to take advantage of the distribution movements, it is likely Brentwood Enterprise Park will need to be delivered to provide premises that are of the scale required by distributors (Economic Futures, 2018).
- 1.26 The potential relocation of industrial activities from London could create additional demand for B1C/B2 and B8 premises in wider South East local authorities. Brentwood is well located to take advantage if firms do relocate outside of London. New B1C/B2 and B8 premises would be required to take advantage of relocation, given the Borough's existing small stock. Delivery of Brentwood Enterprise Park could provide a significant area of the floorspace that meets the needs of relocating businesses (Economic Futures, 2018)⁴.
- 1.27 The Economic Futures report (2018) indicates that in terms of other 'B uses' for example - manufacturing (B1C/B2) and warehousing / logistics (B8) the portfolio of sites put forward is likely to be attractive to the market and provide a sufficient range and high-quality offer.
- 1.28 The Essex Grow-on Space Feasibility Study (2016) has highlighted a gap in supply and demand in the Borough in relation to the availability of smaller sized office and industrial units for emerging small businesses, curtailing the potential growth of these businesses. This identifies a concealed need for employment floorspace of 9ha arising from local businesses looking for room to grow into. The Council will encourage the provision of flexible

⁴ Economic Futures Report, Lichfield. (2018)

working space, incubation units and grow-on⁵ space in the proposed employment allocations where appropriate.

- 1.29 There is a clear need to ensure that strategic investment sites are well connected through public transport an active travel infrastructure to support their overall sustainability. The Council will work with developers and service providers to ensure employment sites such as East Horndon and Dunton Hills will be well connected to existing and new housing sites, including Dunton Hills Garden Village. Work has been undertaken to assess the cumulative impacts of planned development on the A127 and suitable highway measures. More details can be found in Chapter 5.
- 1.30 There is a recognised need to effectively manage the period of transition for a number of current employment sites (such as West Horndon) moving from traditional employment uses to residential led-developments. This is to ensure a clear pipeline of available employment land is achievable to meet the needs of businesses relocating to new premises within the Borough. The early delivery of strategic sites within the A127 corridor will be important to maintain an effective stock of employment land.
- 1.31 Other site specific policies for employment allocations in this Policy can be found in Chapter 8.

POLICY PC04: DEVELOPMENT AND EXPANSION OF BUSINESS SPACE

New offices, research and development and research facilities are encouraged to come forward within the following locations:

- a. in the Designated Centres, providing they are of an appropriate scale and are part of mixed-use schemes with active frontage uses where practicable at ground floor level; and
- b. in the areas within walking distance to the train stations.

Proposals for the development of these uses elsewhere in the Borough will be considered on their merits and alongside the policies of the plan.

Development of larger employment sites, with multiple occupiers, should consider whether they want to provide shared social spaces within the site, to enhance the vitality and attractiveness of the site.

⁵ Grow-on space could be understood as space for small growing businesses with around ten employees plus; that is, businesses that have grown to the extent that they are too large to be accommodated in incubator space or enterprise centres, but are still too small to occupy large, often freestanding, offices or factory/workspace units. Essex County Council (2016) Grow On Space Feasibility Study, available online at: <http://www.basildon.gov.uk/CHttpHandler.ashx?id=7966&n=6>

- 1.32 Consideration of location to ensure new employment development of a smaller scale are accessible by transport other than motor vehicles to minimise associated impacts of this form of transportation. Larger development will benefit from consideration of new social, accessible space to provide a positive sense of place and wellbeing of the site users and visitors.

POLICY PC05: EMPLOYMENT DEVELOPMENT CRITERIA

Development for employment uses (Class B1, B2 or B8) will be encouraged provided the proposal:

- a. is of a scale and nature appropriate to the locality;
- b. provides appropriate landscaping and screening;
- c. is accessible by public transport, walking and cycling;
- d. ensures vehicular access avoids where possible residential streets and country lanes, or mitigates impacts on these; and
- e. the proposal does not give rise to significant traffic movements within rural areas.

Developments that would potentially generate a significant amount of movement must submit sufficient information to assess its likely transport impacts as well as how these impacts would be effectively mitigated, and considered in a Transport Assessment, as set out in Policy BE16.

This policy should be read in conjunction with other policies in this Plan.

- 1.33 All new employment proposals, both within and outside allocated employment areas, will need to comply with the criteria set out in this policy to protect the amenities of residents and other sensitive uses within the vicinity of the developments. The transport impacts of all proposals will need to be assessed to ensure that vehicular access and traffic generation do not result in unacceptable levels of traffic and congestion on unsuitable roads or within environmentally sensitive areas.
- 1.34 Employment sites can generate a large amount of movement for both vehicles and people. Where this is likely to occur, a Travel Plan will be required. To avoid any overspill of parked cars to surrounding residential streets or country lanes a satisfactory level of parking provision will need to be provided on site.

POLICY PC06: SUPPORTING THE RURAL ECONOMY

The Council will promote a sustainable rural economy by supporting appropriate, small scale rural enterprise. Proposals to diversify the range of economic activities on a farm or in a rural area will be supported where proposals:

- a. is accessible, and traffic generation can be satisfactorily accommodated by the existing or planned local road network, ensuring access arrangements are acceptable to the scale and type of development with no adverse effect on the road network;
- b. benefit the local community and do not adversely affect quality of life or the amenity of local residents;
- c. conserve and enhance local character and maintain the openness of Green Belt;
- d. are consistent in scale and environmental impact with their rural location;
- e. have no detrimental impact on existing village shops and business;
- f. have no unacceptable effect on water quality or flooding, watercourses, biodiversity or important wildlife habitats; and
- g. work collaboratively with Essex County Council, communications operators and providers, to provide high quality communications infrastructure and support initiatives, technologies and developments which increase and improve coverage and quality throughout the Borough.

- 1.35 One of the Council's objectives is to support economic growth in the rural area by encouraging the diversification and expansion of agricultural and other businesses and enterprise in the rural area.
- 1.36 The Council recognises it can be beneficial for farms to diversify use of land and buildings for other suitable activities or development. These might include converting redundant barns for B1 business use or workshops, storage, farm shops, bed and breakfast, energy crops, or acceptable sport and leisure uses like campsites. These can be important in supplementing agricultural business income to ensure long-term viability and, alongside suitable small-scale rural enterprise and provide rural job opportunities. Suitable uses will allow more efficient use of buildings and land while fitting in with farming practices, rural surroundings and maintaining openness of the Green Belt.
- 1.37 Farm shops are well used in the Borough and by residents living nearby and play a significant role within the local convenience goods shopping hierarchy. Farm shops provide home grown and local produce, support local agriculture and provide sustainable, healthy alternatives to supermarkets by reducing food miles and providing access to fresh, seasonal

produce. The Council supports this form of farm diversification provided facilities are appropriate to their rural location and would not lead to unrelated business in the countryside or unacceptable levels of activity in the Green Belt.

- 1.38 Council policy seeks to protect and enhance local retail patterns, including safeguarding traditional village shops and facilities in order to retain important rural services where they can best serve the local community. Rural infrastructure such as local roads should not be unacceptably affected by traffic generation as a result of diversification.
- 1.39 The design and construction of new rural development must be of high quality and sympathetic to local character in line with Policy BE31: Responding to Context; and Policy BE30: Creating Successful Places. Applicants should also refer to Policy BE08: Sustainable Drainage; as well as the Essex SuDs Design Guide with regards to appropriate standards.
- 1.40 Telecommunications infrastructure, including broadband, is important in unlocking new development and contributing to a prosperous economy in attracting new businesses and jobs, and ensuring the connectivity of residents to key services.
- 1.41 Proposals may be required to safeguard the employment function of the development from other uses through planning conditions/planning gain mechanisms.

Retail and Commercial Leisure

- 1.42 Brentwood Borough is made up of the market town of Brentwood, village centres and several local shopping parades providing services to its nearby settlements. These areas are where people go to access their employment, leisure, shopping and even housing needs; many have become the heart of the local community's activities.
- 1.43 Focusing people's day to day activities within these centres have multiple benefits to both businesses as well as local communities: businesses benefit from linked trips where people visit more than one activity as part of a single journey whilst the community benefits from having a wide choice of activity within a concentrated area⁶.
- 1.44 This Plan seeks to achieve a good balance of mixed uses in the Borough's centres to meet the needs of those who live, work, shop and spend leisure time here. The following policies provide the Council's proposed way forward, separating Brentwood Town Centre as the focus for economic growth while emphasising the importance of retaining and enhancing its district shopping centres and local centres.
- 1.45 The Revised NPPF removed the requirement to identify primary and secondary shopping frontages and acknowledged the significant challenges facing town centres and in particular the retail sector. It recognised that diversification is key to the long-term vitality and viability of town centres to 'respond to rapid changes in the retail and leisure industries. As such, the

⁶ Association of Convenience Stores (2015) Planning for Diverse Local Centres. Available at: <https://www.acs.org.uk/sites/default/files/planning-guide.pdf>

following policies also aim to clarify the range of uses permitted in Designated Centres, as part of a positive strategy for the future of each centre.

POLICY PC07: RETAIL AND COMMERCIAL LEISURE GROWTH

Provision is made for 4,844 square metres (net) of comparison retail floorspace and 3,833 square metres (net) of convenience floorspace to be provided in the Borough over the Plan period.

- 1.46 The principles of the NPPF indicate that the Council's policy approach should aim to at least fully meet retail needs, so that the local economy is not constrained, and potential investment is not diverted elsewhere or lost.
- 1.47 The Council is required to positively promote competitive town centre environments and manage their growth. It is important to provide for Retail, Commercial and Leisure uses that are appropriate and realistic to the role of centres in the Borough's settlement hierarchy, set out in Policy SP02: Managing Growth; and the retail hierarchy, set out in PC08: Retail Hierarchy of Designated Centres. These should be based on the current state of centres and opportunities to meet development needs in full. In this regard, meeting retail needs and planning for the future of town and district centres are intrinsically linked.
- 1.48 Retail needs are traditionally split into two categories; convenience goods and comparison goods. More recently the proportion of restaurants and cafes has also increased in High Streets.
- Comparison Goods: Often products from High Street shops clustered together, purchased relatively infrequently by consumers and so prices, features and quality levels are often compared before purchasing. Examples include clothing and appliance stores.
 - Convenience Goods: Often products of habit or impulse, easily found by consumers and inexpensive enough for most to purchase. A prime example is goods sold in foodstores.
- 1.49 Short to medium term capacity figures up to 2020 suggest surplus of available convenience goods expenditure could support an additional 2,151 sq.m net (3,074 sq.m gross), primarily concentrated in Brentwood Town Centre. In the long term, surplus expenditure at 2030 could support 3,833 sq.m net of sales floorspace (5,475 sq.m gross) in the Borough as a whole.
- 1.50 For comparison goods the surplus expenditure could support an additional 1,193 sq.m net (1,591 sqm gross) by 2020 across the Borough. The surplus expenditure at 2030 could support 4,844 sq.m net (6,458 sq.m gross). The vast majority of this surplus is for Brentwood Town Centre, with only a very limited amount identified for the rest of the Borough.
- 1.51 There is also requirement for 2,954 sq.m gross of food and drink (A3- A5) floorspace and 1,654 sqm gross of other class A1 service uses up to 2030. No specific provision is made for

these uses as these needs can be met through the planning application process in line with other policies in the Plan.

- 1.52 As available sites in Brentwood cannot accommodate full retail floorspace needs, residential-led allocations creating new and improved village centres at Dunton Hills and West Horndon will provide for the Borough's remaining local retail needs. New retail floorspace will serve the local community. Residential-led mixed use development at West Horndon will provide the opportunity to create an improved village centre near to the railway station. This will include new retail floorspace to serve the village and local area. This will need to complement rather than compete directly with the existing local shops.

POLICY PC08: RETAIL HIERARCHY OF DESIGNATED CENTRES

The Council will promote the continued roles and functions of the Designated Centres to positively contribute towards their viability, vitality, character and structure. The hierarchy of Designated Centres in Brentwood Borough is as follows:

a. Brentwood Town Centre

The Town Centre should be the first choice for retail, leisure and main town centre uses. If Brentwood cannot accommodate the retail floorspace projection within the Town Centre, it may be appropriate to allocate additional retail floorspace in smaller Designated Centres or strategic residential allocations.

c. District Shopping Centres

The District Shopping Centres will be a focus of more localised retail, commercial, flexible work space, community facilities and services that reduce the need to travel and contribute towards more sustainable and neighbourhood-scale living.

d. Local Centres

Local Centres include small shops of a local nature, serving a small catchment. They have an important role in providing day to day shops and services that are accessible to residents in villages and rural parts of Brentwood, especially in areas more remote from the larger centres.

The Designated Centres and Primary Shopping Area are detailed in Figure 6.4 and shown on the Policies map.

The sequential approach and impact assessment

Retail, leisure, office and other main town centre uses will continue to be directed to these centres in line with the sequential approach to retail development locations set out in the NPPF⁷.

Development should contribute positively to the attractiveness, vitality, safety, environmental quality, historic character, employment opportunities and social inclusiveness of these centres.

Change of use of upper floors above commercial premises to working space and/or residential will be encouraged provided that reasonable facilities and amenities are provided for, that development does not result in the loss of ancillary storage space or other beneficial use to the extent that it would make a ground floor unit unviable, and that the development would not prevent off street servicing of any ground floor unit.

Any retail developments proposed outside these centres must be subject to a retail impact assessment, where the proposed gross floorspace is greater than 2,500 sq. m. A retail impact assessment may be required below this threshold where a proposal could have a cumulative impact or an impact on the role or health of nearby centres within the catchment of the proposal.

Designated Centres	Primary Shopping Area
<p>Town Centre</p>	
<p>A Town Centre is often the principal centre(s) in a local council area. In rural areas, they are likely to be market towns and other centres of similar size and role which provide a range of facilities and services.</p>	
Brentwood Town Centre	Brentwood High Street
<p>District Shopping Centres</p>	
<p>District Shopping Centres usually comprise groups of shops often containing at least one supermarket or superstore, and a range of non-retail services, such as banks, building societies, and restaurants, as well as local public facilities such as a library.</p>	
Shenfield Hutton Road	Hutton Road
Warley Hill	n/a

⁷ Paragraph 86

Ingatestone High Street	Ingatestone High Street
Dunton Hills Garden Village Centre (coming forward)	(to be informed by the South Brentwood Growth Corridor Masterplan)
<p>Local Centres</p> <p>Local Centres usually include a range of small shops of a local nature, serving a small catchment. Typically, Local Centres might include, amongst others, shops, a small supermarket, a newsagent, a sub-post office and a pharmacy. Other facilities could include a hot food takeaway and a laundrette.</p>	
<p>West Horndon Village Centre</p> <p>Blackmore Village Centre</p> <p>245-267 Ongar Road</p> <p>Brook Street Post Office</p> <p>Church Lane</p> <p>Doddinghurst Post Office, Doddinghurst Road</p> <p>Herongate Post Office, Brentwood Road</p> <p>1-23 Eastham Crescent</p> <p>200-216 Rayleigh Road</p> <p>60-74 Woodland Avenue</p> <p>Hanging Hill Lane Post Office, Hanging Hill Lane</p> <p>Blackmore Road</p> <p>Kelvedon Common Post Office, Church Road</p> <p>Danes Way/Hatch Road</p> <p>2-8 Harewood Road</p> <p>245-267 Ongar Road</p> <p>Stondon Post Office, Ongar Road</p> <p>The Keys, Eagle Way</p>	n/a

Figure 6.4: Brentwood Designated Centres on the retail hierarchy⁸

1.53 The NPPF places emphasis on the sequential approach with regard to the location of new retail provision. It also promotes mixed-use development (particularly the incorporation of residential uses) and the retention of main town centre uses⁹. The sequential approach is

⁸ The definitions used in this Figure were adopted from Association of Convenience Stores (2015) Planning for Diverse Local Centres. Available at: <https://www.acs.org.uk/sites/default/files/planning-guide.pdf>

⁹ Main town centre uses are retail development (including warehouse clubs and factory outlet centres); leisure, entertainment and more intensive sport and recreation uses (including cinemas, restaurants, drive-through restaurants, bars and pubs, nightclubs, casinos, health and fitness centres, indoor bowling centres and bingo halls);

reflected in the network of centres set out in this Policy, defined to meet retail and service needs and support the local businesses and communities. The position of a centre in the hierarchy reflects its size and range of services and facilities, as well as the size of its catchment. In particular:

- b. Brentwood Town Centre is the social, cultural and economic focus of the Borough and attracts many visitors. It has good access to major roads and rail links and benefits from a refurbished, high quality shopping environment. The sequential approach suggests that it should be the first choice for retail, leisure, community, employment and main town centre uses.
- c. District Shopping Centres will be a focus of more localised retail, commercial and community facilities and services that reduce the need to travel. Shenfield, Ingatestone and **Warley Hill fit this category due to their size and range of services.**
 - ii. Shenfield is home to a major railway station with fast train services into central London. It will be the terminus for Elizabeth Line and it is vital that the most is made of this opportunity to invest in improving Shenfield's retail offer.
 - iii. The increased number of passengers travelling through and using Elizabeth Line at Brentwood Station and hence Warley Hill could lead to a demand for additional or improved retail and service facilities over and above the identified floorspace requirements. There are limited short term opportunities for additional development in the vicinity of these stations and Warley Hill, but in the longer term, sites could become available to meet anticipated future needs.
 - iv. Ingatestone has the largest village centre in the Borough, an attractive local service and convenience centre with a train station.
 - v. There is potential for DHGV to have a District Shopping Centre. Planning for adequate retail provision here would help meet local needs in the south of the Borough, reduce generated trips by car to other centres as well as contribute to the local economy. The designation of a District Shopping Centre will be informed by the South Brentwood Growth Corridor Masterplan and considered as part of future Local Plan review.

In the existing District Shopping Centres, development options for additional retail floorspace are currently limited. The future strategy for these centres should focus on the reoccupation of vacant units and small-scale intensification and extensions (Brentwood Retail and Commercial Leisure Study, 2014).

- d. Local Centres include shopping parades, individual shops and facilities such as small supermarket, newsagent, post office, takeaways and pharmacy providing for the day-to-day needs of local communities. Such facilities are often valued by elderly people and those without access to private transport who often rely on facilities being available locally. These facilities provide a convenient and sustainable choice within walking distance. Local centres are therefore an important component of community

offices; and arts, culture and tourism development (including theatres, museums, galleries and concert halls, hotels and conference facilities).

life and must be afforded proper planning protection and support, with regard to any related development proposal that may affect their provision.

- 1.54 Aside from the Designated Centres identified above, small parades comprising of less than ten units, albeit not covered by this Policy, are still an important feature within a neighbourhood and could be included within a Neighbourhood Plan.
- 1.55 The Council will look favourably upon the change of use to office space, flexible working space, incubation units or grow-on¹⁰ space above existing commercial development, as and where appropriate. These types of development would not only provide a re-use of under-used or unused floor space that can lead to neglect and deterioration of a building, but also address the retail trend, demand of commercial workspace and facilitate business expansions.
- 1.56 Residential development often plays an important role in ensuring the vitality of centres therefore residential development on appropriate sites and/or above existing commercial premises are encouraged.
- 1.57 New development should be of a type and scale appropriate to the centre it is located within and/or close to.
- 1.58 While greater use of public transport, cycling and walking is central to sustainable development, it is recognised that in order to maintain the viability of shopping centres, there will continue to be a justification for appropriate levels of shoppers' short-stay and/or on street car parking. It is necessary to ensure that the economic viability of the town centre and its ability to continue to compete with other shopping centre is not undermined by the inability of shoppers being able to find a secure, safe, well laid out parking space in reasonably proximity to the shops. At the same time car parking provision must not be made at the expense of the local character. Current parking provision in and around the Designated Centres currently have negative visual impacts yet not always meet parking spaces demands of shoppers and visitors. Therefore proposed retail parking provision must be carefully managed so that it meets local demands without adding to congestion or undermining the streetscape and the attractiveness of alternatives to the car. Developers should refer to Policy BE17: Parking Standards for further information.

POLICY PC09: BRENTWOOD TOWN CENTRE

The Council will conserve the positive qualities of Brentwood Town Centre while enhancing and improving negative aspects of function and appearance.

¹⁰ Grow-on space could be understood as space for small growing businesses with around ten employees plus; that is, businesses that have grown to the extent that they are too large to be accommodated in incubator space or enterprise centres, but are still too small to occupy large, often freestanding, offices or factory/workspace units. Essex County Council (2016) Grow On Space Feasibility Study, available online.

Development in the Town Centre should contribute to the Council's aim of improving the capacity and quality of the public realm throughout Brentwood Town Centre, contribute to a vibrant High Street and the surrounding Conservation Area in line with the Town Centre Design Guide.

Shopfronts and signage have significant impacts on its surroundings therefore proposals are required to incorporate high quality, attractive shopfronts that enhance the street scene, in line with the Council's adopted Town Centre Shopfront Guidance SPD.

Where necessary, design must incorporate technology and property management, parking and traffic movement mitigations to reduce congestion.

Chapel Ruins, Baytree Centre and South Street areas

This area provides a link to strategic sites on the High Street therefore improving its permeability and integration into the wider public realm network will create a more welcoming and flexible space at the heart of the Town Centre, enable its historical settings to be celebrated. Proposals should demonstrate how they:

- a. contribute to the enhancement of public realm around Chapel Ruins and the Conservation Area, retain and enhance their significance and character;
- e. complement the retail function and maintain or add to the vitality, viability and diversity of the Town Centre, by means such as mixed-use schemes that include retail, leisure and residential;
- f. facilitate safe and pleasant pedestrian movement through improved alleyways, lighting, wayfinding and landscaping; and/or
- g. assist in uplifting and transforming the Baytree Centre and integrate it with the other parts of the Town Centre.

William Hunter Way

The Council will work with developers and partners to improve the public realm links between the High Street and William Hunter Way, and through the redevelopment of William Hunter Way car park, create a mixed-use scheme to provide new retail and commercial floorspace.

Proposals should demonstrate how they:

- h. contribute to the improvements to frontages and public realm on William Hunter Way through landscaping and redevelopment;
- i. provide additional shopfronts and double fronted shops, if development involves the rear of premises on the north side of the High Street;

- j. facilitate safe and pleasant pedestrian movement through improved lighting, wayfinding and landscaping;
- k. re-provide an appropriate quantum of parking, ensure that parking is well designed and integrated into the public realm.

Linkages to Brentwood station

Improvements to the rail service to London will increase Brentwood Town Centre's regional public transport accessibility. The Council will seek to enhance public realm and way finding around Brentwood Station, foster a stronger sense of place and sense of arrival, improve the linkages from the Town Centre to the station, with Kings Road being the primary focus.

Proposals should demonstrate how they:

- l. contribute to the enhancement of public realm around Brentwood station, Kings Road and Kings Road junction through design, landscaping and redevelopment;
- m. facilitate safe and convenient traffic movement with priority given to pedestrians and cyclists, by means such as improved junctions, cycle paths, lighting and wayfinding;
- n. add to the vitality and vibrancy of the Town Centre by providing an appropriate mix and balance of uses including residential, employment, commercial and amenity spaces; and
- o. provide an appropriate quantum of parking, whilst ensure that parking is well designed and integrated into the public realm.

- 1.59 The Retail and Commercial Leisure Study (2014)¹¹ outlines that Brentwood Town Centre has the largest quantum of convenience and comparison goods floorspace in the Borough and offers a number of other services including restaurants, banks and evening venues. It has a high-quality shopping environment, distinctive offer, 'niche' independent shops, as well as a variety of evening entertainment. These must be supported and developed further.
- 1.60 In line with national guidance the Council aims to support the viability and vitality of the Town Centre by directing new retail, commercial and leisure provision here and encouraging new investment and improvements. Development should balance the requirements of those who live, work, shop, and enjoy leisure time via a diverse range of use and an efficient, convenient network of public transport, cycling and walking routes.

¹¹ Retail and Commercial Leisure Study (2014) Nathaniel Lichfield & Partners.

- 1.61 The Brentwood Town Centre Design Plan (2017) establishes a vision and consider how to deliver new development that contributes to enhancing the town through improved links and key opportunity sites. William Hunter Way car park and the Chapel Ruins, Baytree Centre and South Street areas, among others, are key development opportunities identified in the Brentwood Town Centre Design Plan. This policy points towards the need for development proposals to achieve these aims.
- 1.62 The redevelopment of sites along William Hunter Way offers an excellent opportunity for the Town Centre to grow and meet local needs. It is a former service road north of Brentwood High Street that faces directly onto the rear of High Street premises. The car park and servicing spaces on the southern side of William Hunter Way are underutilised and untidy. Opportunities exist to redevelop the car park for a mix of uses including residential improve this frontage and public realm. It will be important to enhance the local environment through improved pedestrian links, encouraging double fronted units, and high-quality design. This would attract more visitors and additional investment. To achieve this, it is vital that the development is carefully integrated with the High Street and not seen as a separate destination. The loss of public parking provision on William Hunter Way car park should be re-provided with an appropriate quantum for the same reasons identified in paragraph 1.58 above.
- 1.63 Travelling north, from the south of Brentwood Town, Brentwood railway station serves as a gateway into the Town Centre. However currently links to the Town Centre are hindered by a number of physical barriers such as car dominated public realm, a lack of wayfinding support, and undefined pedestrian and cycle routes. There is a poor sense of arrival at Brentwood Station. In addition, the layout of junctions at other gateways into the Town Centre also favour car rather than pedestrian movement. Movement within the Town Centre is a key issue to address, the High Street is fairly weak in terms of providing a positive pedestrian experience to use, move through and congregate within the Town Centre. Therefore, it is important to enhance the public realm and encourage pedestrian movement, starting with improving the Town Centre's connectivity with Brentwood station and its immediate surroundings, and address the current 'drop off' experienced by pedestrians reaching either end of the High Street.
- 1.64 In addition, parking space design and provision near Brentwood railway station should take into account the potential impacts of the Elizabeth Line. The Elizabeth Line once completed will provide very frequent services from Brentwood (and Shenfield) Stations to and through London. Whilst it is expected that this will have impacts on the local highway network both positive (as a result of additional rail trips) and potentially negative (with potential for increased travel by car to access the stations), at this stage the impact of the scheme is unknown and there will be a need to monitor and review the situation once the services are operational¹². Any impacts identified should be addressed through the implementation and promotion of sustainable transport measures, for example promote use of non-car modes and the implementation of parking restrictions in the area. Developers should also refer to Policy BE17 Parking Standards; and Policy BE16: Mitigating The Transport Impacts Of Development.
- 1.65 Congestion at peak times and air quality are key issues around the Town Centre, innovative measures that incorporate technology and property management to mitigate the impacts of

¹² PBA (2018) Transport Assessment

traffic and congestion would be favourably considered. For example, flexible office hours that avoid peak times, design and spacing of drive ways, introducing electrical parking points to encourage use of such vehicles, planning and delivering IT infrastructure to allow future implementation of emerging SMART systems, smart car hire, etc.

- 1.66 It is vital that an appropriate mix of uses contribute to a vibrant Town Centre. Where appropriate, higher density development can help meet the need for more housing and local jobs. Efficient use of previously developed land and buildings should be made, such as making good use of upper floors above shops. High quality retailers should be attracted to compete with retail centres outside the Borough. Major drivers of footfall in suitable locations will help increase the number of 'linked trips' to benefit all local services.
- 1.67 Development should respond to the character of Brentwood Town Centre Conservation Area, amended in 2010 to include the southern frontage of William Hunter Way in recognition of this underutilised land and to encourage high quality redevelopment that is sympathetic to the wider Conservation Area.
- 1.68 The Council is preparing a Town Centre Design Guide which sets out how development can contribute to these improvements. The Design Guide will be subject to public consultation. Once adopted as a Supplementary Planning Document, all applications within the identified areas will be expected to follow this guidance.

POLICY PC10: MIXED USE DEVELOPMENT IN DESIGNATED CENTRES

Within the boundary of Designated Centres as set out in Policy PC08 Retail Hierarchy of Designated Centres and defined on the Policies Map:

- a. mixed use development will be supported if:
 - i. it is in proportion to the scale and function of the centre;
 - ii. contains an appropriate mix of ground floor uses;
 - iii. it makes efficient use of the site and is considered to be of sufficient density.
- b. proposals resulting in the loss of centre uses at ground floor level to non-centre uses, as defined in Figure 6.5, which results in an unacceptable mix of uses will not be permitted;
- c. non-retail development that are classed as centre uses, as defined in Figure 6.5, should:
 - i. complement the retail function and maintain or add to the vitality, viability and diversity of the centre;

- ii. provision is made for an active frontage, such as a window display, which is in keeping with the character of the shopping area;
 - iii. would not give rise to a detrimental effect, individually or cumulatively, on the character or amenity of the area through smell, litter, noise or traffic problems;
 - iv. proposals for new hot food takeaways (Use Class A5) within 400m walking distance from the entrance points of primary or secondary schools will be restricted in order to promote the health and wellbeing of school pupils. Hours of opening will be limited to after 5pm on school days and lunch time opening will only be permitted where schools within 400m do not allow pupils to freely leave school premises during lunch breaks;
- d. changes of use from retail to another centre use as set out in Figure 6.5 will only be permitted where the development would satisfy the above criteria and retain an appropriate mix and balance of uses which will provide for the needs of local residents;
 - e. proposals for separate units of retail, offices, leisure, cultural, community facilities and residential on upper floors are supported provided that the use would have a safe and convenient access, a separate refuse and recycling store, and would not inhibit the functioning of the ground floor use. Centre uses and employment uses should be given priority over residential uses unless it can be demonstrated that this would lead to an imbalance of uses.

1.69 The NPPF recognizes that diversification is key to long-term vitality and viability of town centre, to 'respond to rapid changes in the retail and leisure industries. Locating a variety of land uses close together reduces the need to travel, bring jobs and essential services closer to where people live and enhances community safety. For example, use such as building societies, banks, estate agents, restaurants, takeaways etc., attract people into the centre for services and entertainment and are often linked to a shopping trip; restaurants, takeaways and public houses contribute to the attractiveness and vitality of an area, providing variety and activity during and outside normal business hours.

1.70 The nature of mixed-use development varies depending on location. The variety of uses increase and physical distribution of uses becomes more concentrated closer to Brentwood Town Centre. This is also true to a lesser extent in the Borough's District Shopping Centres and Local Centre. In these areas the mix of uses will be assessed at a local level. In Brentwood Town Centre the mix of uses will be addressed on individual sites. In all cases, successful mixed-use development depends on the complementary nature of uses within the development itself and its immediate surroundings. Residential development can also give rise to demand for additional community facilities. For example, a community hall, medical

facilities, education or local shopping provision may be required, or improvements to existing provision made, to meet the needs of new and existing residents.

- 1.71 Too great a concentration of non-retail uses can undermine the primary role of the Designated Centres for retailing, leading to a reduction in the range and choice of goods available and potentially isolating some retailers from the main shopper/pedestrian flows upon which they depend. It is important to consider location and siting and ensure incorporation of window displays to overcome potential problems associated with the creation of “dead frontages”.
- 1.72 Policy PC10 is written in the context of the need to retain retail for the benefit of a centre, but it is also recognised that the transition to online shopping and a high amount of vacant units are damaging their vitality. For this reason, changes in shopping trends and technology need to be taken into account as part of future development assessment.
- 1.73 Proposals resulting in the loss of centre uses at ground floor level to non-centre uses would only be considered when there is substantial evidence of non-viability showing that the premises are not reasonably capable of being used or redeveloped for a centre use despite active marketing to encourage potential occupiers. An economic assessment of the sale or lease price the property is offered at may form such evidence.
- 1.74 Hot food takeaways (Use Class A5) are considered town centre uses and should not be permitted beyond designated centres and retail areas. However, hot food takeaways contribute to the mix of centre uses, they are often linked to obesity and other adverse effects on health and amenity through, noise, cooking smells, inappropriate short-term parking and late night congregation. Over-abundance of this type of use can displace other shops and food options and impact on the vitality and viability of town and village centres. It is therefore important that they do not dominate the local retail food offer in Designated District Shopping and Local Centres.

POLICY PC11: PRIMARY SHOPPING AREAS

Retail use should remain the predominant use in Primary Shopping Areas as set out in Policy PC08: Retail Hierarchy of Designated Centres, and defined on the Policies Map.

- a. proposed retail development will be supported if they:
 - i. contribute to the area’s attractiveness, accessibility and vibrancy by adding to or providing a range of shops to meet local needs, including opportunities for small, independent shops;
 - ii. would not result in subdivision of an existing large retail unit;
 - iii. be fully integrated with the existing shopping area;

- iv. facilitate safe, convenient and pleasant pedestrian movement through improved lighting and landscaping.
- p. proposals resulting in the loss of retail uses at ground floor must demonstrate that:
 - i. the use is no longer viable, by evidence of active marketing to the public for at least 12 months, showing that the premises are not reasonably capable of being used or redeveloped for a retail use;
 - ii. development would not result in 3 or more non-retail use units in adjoining premises.
- q. proposals for retail and commercial leisure development outside the Borough's Primary Shopping Areas over 2,500 square metres will only be permitted provided an accompanying impact assessment can satisfactorily demonstrate that:
 - i. associated travel demand can be satisfactorily accommodated by the transport network with appropriate mitigation;
 - ii. the proposal does not give rise to any detrimental impact on amenities in the surrounding area; and
 - iii. travel by more sustainable forms of transport than the private car will be achieved.

1.75 Primary Shopping Area is defined in the Revised NPPF (2018) as an area where retail development is concentrated.

1.76 In addition to providing opportunities for small, independent 'niche' shops, the Council seeks to retain existing large retail units in Primary Shopping Area. These should not be subdivided as they can be a major driver of footfall. Subdivision would reduce the ability to attract major retailers, potentially increasing pressure for out of-town retail floorspace which in turn would undermine the Town Centre viability. This Policy aims to strike a balance between these potentially competing market forces, ensure a broad range of dynamics and shopping opportunities.

1.77 Retail developments are significant trip attractors and should be located in places that are well-connected by public transport, many retail trips are potentially walkable or able to be reached by cycling, improving the attractiveness of these modes through improved public realm will support the vitality of the Primary Shopping Areas. Proposals that contribute to such aim will be considered positively.

- 1.78 Historically, non-retail uses were resisted in Primary Shopping Area; however, changes in retail trends and technology need to be taken into account as part of future development assessment.

POLICY PC12: NON-CENTRE USES

Proposals for non-centre uses in the Designated Centres; should demonstrate how they:

- a. complement the retail function and makes a positive contribution to the vitality, viability and diversity of the Designated Centre it is located within;
- b. would not create an over-concentration of non-centre uses which are harmful to the function of the centre
- c. provision is made for an active frontage in keeping with the character of the shopping area;
- d. would not give rise, either alone or cumulatively, to a detrimental effect on the character or amenity of the area through smell, litter, noise or traffic problems. Demonstrates any potential related problems can be overcome satisfactorily to protect amenities of surrounding residents. Details of extraction, filtration, refrigeration or air conditioning units should be submitted with any application; and
- e. for proposals creating more than two residential flats above ground floor level, the development would not result in the loss of ancillary storage space or other beneficial use to the extent that it would make a ground floor unit unviable, and the development would not prevent off street servicing of any ground floor unit.

- 1.79 To avoid an overconcentration of non-centre uses this policy aims to strike a balance between competing uses, ensure a broad range of businesses, provide for a reasonable dispersal of uses throughout the centres and integrate non-retail uses into the general shopping environment.
- 1.80 Proposals in and around Brentwood Town Centre area should be in line with the adopted Shopfront Guidance SPD, the Town Centre Design Plan and the Town Centre Design Guide.

Figure 6.5: Uses suitable and not suitable at ground floor level in designated areas and Primary Shopping Area

Centre uses (uses suitable at ground floor level in the designated centre and Primary Shopping Area)	Non-centre uses (uses not suitable at ground floor level in the Designated Centre and Primary Shopping Area)
<ul style="list-style-type: none"> • Shops (A1 uses) • Financial and professional services (A2 uses) • Cafés and restaurants (A3 uses) • Drinking establishments (A4 uses) • Takeaways (A5 uses) • Hotels (C1 uses) • Non-residential institutions such as healthcare, nurseries, schools, libraries and places of worship (D1 uses) • Assembly and leisure (D2 uses) • Certain sui generis uses typically found in centres, including theatres, nightclubs, amusement arcades, laundrettes, tattooists, beauty parlours 	<ul style="list-style-type: none"> • Business uses, including offices, research and development (B1) • General industry (B2) • Storage and distribution (B8) • Residential institutions (C2 and C2a) • Residential (C3) • Houses in multiple occupation (C4) • Other sui generis uses

POLICY PC13: NIGHT TIME ECONOMY

After-hours cultural, entertainment and leisure uses in Designated Centres will be encouraged as part of mixed use development. After-hours leisure should raise standards and broaden the appeal of the night-time economy. Proposals should:

- a. be safe and welcoming, delivering high standards of customer care;
- b. allow people to walk and cycle around the centre with ease;
- c. offer a vibrant choice of leisure and entertainment for a diversity of ages, lifestyles and cultures, including families and older people;
- d. provide a mix of activities that reinforce local character and identity;

- e. would not give rise, either alone or cumulatively, to a detrimental effect on the character or amenity of the surrounding residential area through smell, litter, noise or traffic problems. Proposals should demonstrate any potential related problems can be overcome satisfactorily to protect amenities of surrounding residents;
- f. provide evidence of responsible management and stewardship arrangements to ensure there is no disturbance to surrounding properties and residents or harm to surrounding area amenity.

- 1.81 This policy aims to positively manage the night-time experience to overcome negative public perceptions by creating a high-quality environment that is safe, convenient and enjoyable for all.

Community Infrastructure

POLICY PC14: PROTECTING AND ENHANCING COMMUNITY ASSETS

The Council recognises the importance of community assets, including those registered as Assets of Community Value (ACV), as part of social infrastructure and seeks to ensure that:

- a. existing community assets will be protected from inappropriate changes of use or redevelopment;
- b. new facilities should be easily accessible by public transport, cycling and walking and will be prioritised in Designated Centres;
- c. development proposals that provide high quality, inclusive community assets that addresses a local or strategic need and supports service delivery strategies will be supported;
- d. development proposals that seek to make best use of land, including the co-location of different forms of community assets and the rationalisation or sharing of facilities, will be encouraged and supported;
- e. development proposals that would result in a loss of community assets will be discouraged unless it can be demonstrated that:

- i. there are realistic proposals for re-provision that continue to serve the needs of the neighbourhood and wider community; or
 - ii. the loss is part of a wider public service transformation plan which requires investment in modern, fit for purpose infrastructure and facilities to meet future population needs or to sustain and improve services.
- f. redundant community assets should be considered for full or partial use as other forms of social infrastructure before alternative developments are considered.

This policy should be read in conjunction with Policy SP04: Developer Contributions; Policy PC15: Education Facilities; and Policy PC16: Buildings For Institutional Purposes.

- 1.82 Community assets can cover a wide spectrum and include land, services and facilities such as village halls, community centres, libraries, parks, green spaces, and buildings for sports, leisure, healthcare, education, social, arts and cultural activities. However, not all land and buildings are community assets. Locality, the nationwide network for community-led organisations, suggests that land and buildings are only community assets if they are capable of generating a profit that can be reinvested into activities that benefit the community¹³.
- 1.83 Community assets are a part of social infrastructure and play an important role in improving good quality of life, stimulating and supporting social cohesion and interaction, as well as developing strong and inclusive communities. They provide opportunities to bring different groups of people together, contributing to social integration and the desirability of a place.
- 1.84 For example, the provision of childcare facilities including nurseries, integrated nursery centres, playgroups, crèches and child-minding networks, is important to increase economic activity rates, to improve the quality of life of parents and children and to reduce social exclusion. Good quality leisure and sport facilities support and encourage people to lead healthy lifestyles, raising the quality of life for local residents. Leisure, cultural and entertainment facilities help attract people to the Borough as a place to work, visit and live.
- 1.85 It is therefore important that new and replacement facilities support new and existing communities, respectively. These should also facilitate the growth of the Borough by providing sufficient capacity to accommodate community need and demand.
- 1.86 The Council will work collaboratively with service providers, developers and relevant stakeholders, including the local community, to fully understand existing and future social

¹³ <http://locality.org.uk/services-tools/support-for-community-organisations/ownership-and-management-of-land-and-buildings/>

infrastructure needs and plan appropriately for these, including through the Community Infrastructure Levy.

- 1.87 The loss of social infrastructure can have a detrimental effect on a community. The Council seeks to protect its existing community assets through other relevant Local Plan policies. Where a development proposal leads to the loss of a facility, a replacement that continues to meet the needs of the neighbourhood it serves will be required.
- 1.88 It should be noted that Assets of Community Value (ACV) are subject to additional protection from development under the Localism Act 2011. The Localism Act 2011 introduced the Community Right to Bid which provides a new right for residents to nominate certain local public or privately-owned buildings or land as being an asset of community value. The Council is obliged to consider all nominations received and include the building or land on the ACV list, if the current use or a recent past use of the asset has furthered the social wellbeing or social interests of the community and can continue to do so. Once an asset is included in the ACV list it will remain on that list for five years, after that re-application will be necessary. During this time the owner cannot dispose of it other than to a community interest group, without the community having six months to put together a bid to buy the asset. The Brentwood most up to date ACV list and how to nominate an asset are available to view in the Council's information database, DataShare¹⁴.
- 1.89 Proposals for new and replacement facilities will be supported where there is a local need. This need will be demonstrated through a local needs assessment. This is particularly important where existing deficits in community or leisure provision have already been identified.
- 1.90 When new developments generate the need for new community facilities, the need should be met by on and off site provision, in line with Policy SP04: Developer Contributions.

POLICY PC15: EDUCATION FACILITIES

Sites proposed for or in current educational use are protected for that use in line with Policy PC14 Protecting and Enhancing Community Assets. In addition, the change of use or re-development of educational establishments and their grounds will not be permitted unless:

- a. it can be clearly demonstrated that the use of the site is genuinely redundant and no other alternative educational or community use can be found;
- b. satisfactory alternative and improved facilities will be provided;

¹⁴ <http://opendata.brentwood.gov.uk/>

- c. the area of the site to be redeveloped is genuinely in excess of Government guidelines for playing field provision, taking into account future educational projections.

Where there is a demonstrable need for the facilities, as a result of existing deficiency or regeneration or new development, planning permission will be granted for appropriate and well-designed proposals for new school and education facilities in sustainable locations on sites of sufficient size.

New or enhanced education facilities will be permitted if:

- d. the scale, range, quality and accessibility of education facilities are improved;
- e. they are located in or in close proximity to the community that they are intended to serve;
- f. for proposals in urban areas, the site is easily accessible by public transport, walking and cycling;
- g. adverse impacts on the transport network and parking provision will be mitigated to an acceptable level; and
- h. they mitigate the impact of any associated residential development.

The Council recognises the differences in location and design requirements between rural and urban based new education proposals in the Borough and will assess applications accordingly.

Where necessary, the Council will utilise planning obligations or CIL to help mitigate any adverse impacts of an educational development and assist in delivering development that has a positive impact on the community.

Developers should engage with the Local Education Authority at the earliest opportunity and work cooperatively to ensure the phasing of residential development and appropriate mitigation is identified in a timely manner to ensure appropriate education provision can be secured.

Proposals in the Green Belt should be considered in combination with Green Belt policies.

- 1.91 Education in this section relates to early years, primary, secondary and further education provision for all children and young people, including those with special educational needs and/or disabilities, where residential elements may form part of the provision. Higher education and other types of education such as language schools are not included in this Policy.

- 1.92 Established schools and related educational facilities make a major contribution to community use and provide essential support to increased housing growth. Education providers and institutional users will be encouraged to improve facilities and make efficient use of their assets and landholdings. Where feasible providers will be encouraged to share their assets with the wider community to improve health and social wellbeing, subject to site specific context and wider impacts.
- 1.93 Easy access to good quality educational provision is important for supporting economic growth, developing strong sustainable communities, promoting economic prosperity and sustaining quality of life. It is therefore appropriate for new residential development to contribute towards the cost of education provision, either towards the expansion of existing facilities, or in some cases towards the funding of a new school, through planning obligations and the Community Infrastructure Levy (CIL) as appropriate.
- 1.94 Essex County Council (ECC) as the Local Education Authority has the responsibility for early years and school place planning. Through this process ECC identifies the need for early years and school places and identify surpluses or deficits through a 10 Year Plan for School Places currently covering the period 2017-2026. Whether the change of use or redevelopment of independent schools would be considered surplus to educational requirements will be considered on a case by case basis.
- 1.95 The Council will continue to work with Essex County Council as Local Education Authority to determine what additional education facilities and local education services will be needed as a result of planned future development.
- 1.96 Regard should be given as to how teachers, parents and pupils will access the nearest primary and secondary school and encourage sustainable travel to and from the school. Development should seek to ensure that children and young people can walk or cycle to school safely on designated safe routes through new developments in line with Policy BE13 Sustainable Means of Travel and Walkable Streets; and Policy BE14 Sustainable Passenger Transport. Such routes should be planned from the outset of development and not retrofitted into a scheme's design.

Early years and childcare

- 1.97 The Council, as advised by Essex County Council, will seek new early years and childcare facilities preferably co-located with new primary schools, where appropriate, and which will be funded through developer contributions. Sufficient early years and childcare provision also needs to be considered alongside other essential services and infrastructure. It may prove necessary to locate new early years and childcare facilities close to major new employment locations, where demand is identified.

Primary and secondary schools

- 1.98 The NPPF stresses the importance on ensuring sufficient and choice of school places to meet existing and future needs. Where growth is to be located it will be essential to ensure the delivery of education facilities is undertaken in a timely and phased manner. Additional school places can be provided either by the expansion of existing schools/ academies or the opening of new “free schools” or academies. However, existing primary schools, especially in the Brentwood urban area are generally close to capacity, with limited space on site to expand, but there is generally a high level of capacity at secondary schools.

- 1.99 Whilst faith schools and academies may have sufficient site area to expand this would need the agreement of the Anglican Diocese of Chelmsford/Roman Catholic Diocese of Brentwood or the academy trusts responsible for these schools/ academies. This is particularly relevant as a significant proportion of schools/ academies located within the borough are faith schools.
- 1.100 When considering the housing applications, the interests of schools will be taken on board. This is likely to involve reserving suitable sites for new schools on strategic allocation. Developers should refer to the required site areas set out in the ECC's Developers' Guide Education Supplement.
- 1.101 Further information regarding requirements for educational facilities will be set out in the Council's Infrastructure Delivery Plan.

POLICY PC16: BUILDINGS FOR INSTITUTIONAL PURPOSES

Where there is a demonstrable need for the facilities, as a result of existing deficiency or regeneration or new development, planning permission will be granted for appropriate and well-designed proposals in sustainable locations on sites of sufficient size.

Redevelopment, change of use to, or new buildings for institutional purposes will be permitted where the Council is satisfied that:

- a. the scale, range, quality and accessibility of facilities are improved;
- b. the proposal is in close proximity to the community that the facilities are intended to serve;
- c. the site is easily accessible by public transport, walking and cycling, impacts on the transport network are mitigated to an acceptable level and parking provision is adequate; and/or
- d. the impact of any associated residential development is mitigated.

- 1.102 By their nature institutional uses can generate considerable traffic and other activity. The siting of such a facility, therefore, needs to be carefully considered in terms of impact on the transport network and on neighbouring properties. Any site should be easily accessible, particularly by public transport, walking and cycling. Residents or users of such buildings may benefit from being near social or community facilities, for example: shops, post office, medical facilities, and community halls.
- 1.103 As with other development or changes of use, there should be no loss of existing residential accommodation.

1. Natural Environment

Introduction

Policy Aims and Objectives

- 1.1 The policies in this this Natural Environment section seek to ensure future development avoids and/or positively mitigates the impact on the natural environment and achieves sustainable, well-designed places that promote community wellbeing. The policies help deliver Strategic Objective 4.

SO4: Deliver Beautiful, Biodiverse, Clean and a Functional Natural Environment, where resources are carefully managed to avoid adverse impact; and where our natural heritage is protected, ecosystem services are restored and enhanced and integrated back into the built environment through multi-functional green infrastructure.

- 1.2 The Borough of Brentwood currently enjoys a varied built and natural landscape. From the main urban area of Brentwood with its green wedges, and the settlements of Shenfield, Pilgrims Hatch and Hutton at its core, to the dispersed, yet neighbouring northern villages and the more distant villages in the south, it is set within the varied landscape of intrinsic character and beauty within the Essex Countryside. This enables Brentwood residents to enjoy the 'best of both worlds' – the urban and the rural benefits - leading to the descriptive reference as the 'borough of [many] villages'.
- 1.3 While Brentwood currently enjoys this rich and varied natural landscape, the pressure to grow and accommodate change must not be complacent to this privileged position. The policies in this section, therefore, aim to ensure this natural heritage is protected and enhanced for future generations to enjoy. The policies aim to:
- maintain the character of 'borough of villages', while improving public access in between through ecological networks and green infrastructure;
 - harness the characteristics and intrinsic value of the landscape to inspire landscape-led developments throughout Brentwood;
 - protect and enhance sites of significant international, national and local geological, ecological and landscape value;
 - minimising the impacts and providing opportunities for net gains for biodiversity through habitat improvements and establishing ecological networks and green infrastructure provision;

- e) Maintaining the character and ecology of the Essex Wildlife Trust living landscapes:
 - f) preventing unacceptable levels of soil, air, water, noise and land pollution, ensuring development contributes to improvements in local environmental conditions.
- 1.4 The Council is committed to the protection and enhancement of the natural environment in line with the National Planning Policy Framework (NPPF, 2018) Section 15. The Council has a duty under the Natural Environment and Rural Communities (NERC) Act 2006 and the Wildlife and Countryside Act 1981 to have regard to biodiversity conservation and the positive conservation management of Local Wildlife Sites (LWS) within the Borough.
- 1.5 Future growth is planned in sustainable locations to ensure that the quality of our environment is valued and sustained. Consideration for integration, conservation and enhancement of the natural and built environment to promote the health and wellbeing of inhabitants is paramount. This will be achieved through the considered management of development in line with Government's 25 Year Environment Strategy and NPPF¹.

Summary of Natural Assets

- 1.6 The majority of the landscape is dominated by Wooded Farmland comprising of undulating areas of deciduous and mixed woodland interspersed with arable fields, mature hedgerows, smaller pastures and paddocks, and narrow lanes. Brentwood has 15 areas of ancient woodland. The Thames Chase Community Forest Area covers the south and south-west of Brentwood. The Thames Chase Plan (2016)² describes the landscape as 'Land of the Fanns', comprising of marshy land/low lying district with fens, forests and farming; Fanns being a Saxon term for low marshy land or a low-lying district. This area provides an inspirational image of a forest landscape that is being developed to Community Forest principles.
- 1.7 The south of the borough of dominated by the Horndon Fens characterised by widespread arable agriculture with a flat landscape dominated by large fields patterns and hedgerows.
- 1.8 The Roding River Valley in the north-west comprises of linear patches of woodland along the valley with mature hedgerows.
- 1.9 Amongst this backdrop are a number of interspersed Country Parks, namely St Faith's, Weald, Hutton, Warley, Thorndon, Merrymeads.
- 1.10 Warley, Weald and Thorndon area also on Historic England's on the Register of Historic Parks and Gardens of special Historic Interest in England'.
- 1.11 The Borough contains three Sites of Special Scientific Interest (SSSI): Curtis Mill Green, Thorndon Park and The Coppice, Kelvedon Hatch. Hutton Country Park is also a statutory Local Nature Reserve, while there are additionally 147 Local Wildlife Sites (LWS), identified for their value as semi-natural habitats and for their role in environmental education and

¹ HM Government (2018) A Green Future: Our 25 Year Plan to Improve the Environment, available at <https://www.gov.uk/government/publications/25-year-environment-plan>

² The Thames Case Trust. The Thames Chase Plan (2016). [online] http://www.thameschase.org.uk/uploads/TC_Plan_Summary.pdf

public engagement with wildlife. In the Mill Green area lies the Forest of Writtle is a designated Ancient Landscape. All these sites are important landscapes recognised for their special cultural, horticultural, historic and landscape qualities.

- 1.12 Other natural features of conservation interest include commons, small copses, trees, tree belts, woodlands, ponds and watercourses and hedgerows. Recreational impacts already pose a challenge to conserving these sites. Ancient hedged landscape of narrow lanes link historic farmsteads and hamlets in the Brentwood Countryside.
- 1.13 A number of sites within, or partly within Brentwood are also classed as the Living Landscapes of Havering and Brentwood Ridge (19); Thorndon Woods (23). Ramsden Heath and Woods (34); Writtle Forest (36); Upper Roding: Abbess to M25 (18); Lower Roding: M25 to Chigwell (17) and Tylers Common (22).

Protecting and Enhancing Natural Heritage

POLICY NE01: PROTECTING AND ENHANCING THE NATURAL ENVIRONMENT

Proposals will be supported which minimise the use of natural resources and proactively protect and enhance the quality of the natural environment according to their international, national and local significance, aiming to achieve:

- a. ecological connections between significant sites through multi-functional green and blue infrastructure provision;
- b. biodiversity net-gain across all green infrastructure;
- c. ecological and ecosystem restoration; and
- d. habitat and species protection and enhancement (both statutory and non-statutory, including priority habitats and species) of international, national and local importance commensurate with their status.

Proposals will not be permitted if potential impacts will lead to the deterioration or loss, either direct or indirect, of the borough's natural designated and non-designated heritage assets, including Biodiversity, Geodiversity, Landscape Character and any other aspect of ecological potential, priority habitats and/or species, water cycle, green wedges, ancient woodlands and landscapes.

Development should avoid adverse impact on existing natural heritage assets as a first principle and enable net gains by designing in landscape and biodiversity features and enhancements. Where adverse impacts are unavoidable, they must

be adequately and proportionately mitigated in accordance with their international, national and local significance. Proposals must demonstrate how they have taken all necessary steps of avoidance, minimisation and then mitigation; if insufficient to fully address adverse impacts, consideration will be given to compensation measures. Following this process, a proposal will only be supported subject to a hierarchy where:

- a. a site of international importance, being a special area of conservation (SAC), special protection area (SPA) or Ramsar site would be affected there has to be exceptional overriding reasons of human health, public safety or environmental benefit; impact on these international (European) sites will also be subject to Policy NE02.
- b. a site of national importance, such as a site of special scientific interest (SSSI) or national nature reserve (NNR) would be affected there has to be exceptional circumstances where the need for, and the benefits of, the proposal significantly outweigh both the potential impacts on the features of the site that make it of national importance and any broader impacts on the national and regional network of such sites; and
- c. a site of local importance such as Local Wildlife Sites (LWS), a protected species, a priority habitat or species, a site of local or regional importance, the achievement of water body good ecological potential, or the biodiversity value of the proposed development site as part of the wider network would be affected, the need for and the benefits of the proposal must clearly outweigh the assessed impacts.

Proposals will be required to demonstrate that all potential adverse impacts on natural heritage assets are accompanied by an appropriate appraisal, investigating all individual and cumulative potential impacts and demonstrate what measures are to take place to avoid adverse impacts. Where appropriate development proposals will be required to be accompanied by:

- a. an ecological survey as required by appropriate to the nature and scale of the proposal, identifying links to similar ecosystems within proximity of the development site in line with Policy 10.10 Green Infrastructure;
- b. a landscape scheme detailing new planting requirements and where appropriate, replacement trees of a value commensurate or greater to that which is lost, boundary treatments and proposals for ecological enhancement;
- c. an arboricultural assessment detailing the measures to protect and/or justification for the removal of any trees or hedgerows during onsite construction;
- d. details of landscaping maintenance arrangements; and

- e. a method statement for any land raising and/or dispersal of excavated or dredged materials.

- 1.14 Areas of landscape, biodiversity and geodiversity interest and local distinctiveness within the Borough will be protected from harm and their retention, enhancement and restoration will be encouraged. Where feasible, proposals should promote the use of trees, hedges, wildlife gardens, allotments, ponds, green roofs/walls, roosting boxes and wider habitat creation. In exceptional circumstances, where the landscape, biodiversity, social or economic benefits of a proposal are considered to outweigh the loss of a feature, impact on landscape character, or existing habitat, development may be permitted subject to adequate compensatory measures being implemented. In line with the NPPF, planning permission will not be permitted for development resulting in the loss or deterioration of irreplaceable habitats, including ancient woodland and the loss of aged or veteran trees found outside ancient woodland, unless the need for, and benefits of, the development in that location clearly outweigh the loss.
- 1.15 Local Wildlife Sites are a network of 147 diverse assemblages of ecologically important sites within the Borough, identified as part of the Local Wildlife Site Review (2012).
- 1.16 The Council acknowledge the sensitive biodiversity sites just beyond the borough boundary, including Basildon Meadows SSSI, Norsey Wood SSSI and Epping Forest SSSI and Special Area of Conservation. Proposals likely to have an adverse effect on these neighbouring sites will be assessed in per policy xxx above.
- 1.17 Where there is a confirmed presence, or reasonable likelihood, of a legally protected species or priority species on an application site, the applicant will be required to demonstrate that adverse impacts upon the species have been avoided, and where they cannot be avoided adequately mitigated. Mitigation must conform to the requirements of relevant legislation and Natural England Standing Advice. Where impacts cannot be adequately mitigated, the proposal will not be permitted.
- 1.18 All stages of development must be considered when assessing the impact and cumulative impact on wildlife sites both within and in proximity to the Borough of Brentwood.
- 1.19 The Council will take a precautionary approach where insufficient information is provided about avoidance, management, mitigation and compensation measures. The Council will secure management, mitigation and compensation measures through planning conditions/obligations where necessary.
- 1.20 Proposals that result in a net gain in Habitat value will in principle be supported, subject to other policies in this plan. Where Priority Habitats are likely to be adversely impacted by the proposal, the developer must demonstrate that adverse impacts will be avoided, and impacts that cannot be avoided are mitigated onsite. Where residual impacts remain, offsite compensation will be required so that there is no net loss in quantity and quality of Priority habitat in the Borough of Brentwood.

- 1.21 The Council supports the Essex Wildlife Trust Living Landscapes” vision to “restore, recreate and connect wildlife habitats”. Within each Living Landscape, opportunities for the preservation, restoration and recreation of priority habitats, ecological networks and populations of priority species will be supported in order to protect and enhance strategic wildlife corridors and habitats in Essex. Development proposals that would deliver these opportunities will in principle be supported, subject to other policies within this plan. Development resulting in a significant adverse impact on the ecological function of these Living Landscapes will be refused.
- 1.22 In addition to the statutory protections and obligations for designated sites, proposals must also demonstrate how they are responding to:
- to the Essex Biodiversity Action Plan (2011);
 - the Essex Wildlife Trust Living Landscapes vision; and
 - the Thames Chase Plan.

POLICY NE02: RECREATIONAL DISTURBANCE AVOIDANCE AND MITIGATION STRATEGY (RAMS)

New residential development within the RAMS Zone of Influence will be subject to proportionate contributions to deliver all mitigation measures identified (including strategic measures) through project level HRAs, to mitigate any recreational disturbance impacts in compliance with the Habitat Regulations and Habitats Directive.

Proposals will need to implement on-site options for avoidance and/or reduction in recreational disturbance impact through sensitive layout and design measures and green infrastructure proportionate to the scale of the development.

The Council will seek appropriate financial contributions towards off site mitigation as prescribed in the Essex Coastal ‘RAMS’ mitigation strategy and the Epping Forest ‘RAMS’ mitigation strategy (as applicable).

- 1.23 Development in the Borough has the potential to increase the recreational pressures and disturbance on existing European Level sensitive habitats, the Essex Estuaries Special Area of Conservation (SAC), Crouch and Roach Estuaries Special Protection Areas (SPA) and Epping Forest Special Area of Conservation.
- 1.24 Recreational disturbance has been further considered in an Appropriate Assessment which identifies the need to prepare Recreational disturbance Avoidance and Mitigation Strategy (RAMS) for these locations.

- 1.25 Following consultation with Natural England, a RAMS is being prepared on behalf of nine district /borough councils and Southend and Thurrock unitaries, to cover the Essex Estuaries SAC and Crouch together with the Roach Estuaries SPA, the Colne and Blackwater Estuaries SPAs and Ramsar sites, to clarify the area of potential impacts (within the Zone of Influence) with a view to their subsequent adoption as a Supplementary Planning Document (SPD) with an associated charging schedule. This work has assessed the Zones of Influence for each of the habitat sites and where residential development is proposed in these Zones, mitigation for in combination impacts is required.
- 1.26 A similar assessment process is being carried out for the Epping Forest Special Area of Conservation involving the Local Planning Authorities that have been identified as having the potential for impact by their geographical proximity to Epping Forest. The details evidence base has now been prepared and has identified the new residential development Zones of Influence of these internationally important protected biodiversity sites.
- 1.27 Any residential development that is likely to affect the integrity of these European Sites, will be required to either contribute towards mitigation measures identified in the RAMS or, in exceptional circumstances, identify and implement bespoke mitigation measures to ensure compliance with the Habitat Regulations.
- 1.28 Prior to the adoption of a Supplementary Planning Document, or similar, development in the Zones of Influence will be required to make Appropriate Assessment of the in combination impact of the development and identify suitable mitigation proposals, in line with Natural England advice.

POLICY NE03: TREES, WOODLANDS, HEDGEROWS

Development will not be permitted where it would have a detrimental effect on, or result in the loss of, significant landscape heritage or a feature of ecological importance, including trees, woodlands or hedgerows.

A development proposal will only be supported where it seeks to conserve and enhance any existing tree, woodland, hedge and/or hedgerow of value that would be affected by the proposed development.

Where potential adverse impacts on trees, woodland, hedges and hedgerows is unavoidable, a proposal must demonstrate that the impact has been investigated. Where investigations show that such adverse impacts are possible a statement will be required that:

- a. assesses all trees, woodland, hedges and/or hedgerows that would be affected by the proposal, describing and assessing their value;
- b. sets out how the details of the proposal have been decided upon in terms of their impact on the value of trees, woodland, hedges and hedgerows and how

adverse impacts will be avoided as far as possible, or if unavoidable how they will be minimised as far as possible.

The loss, threat or damage to any tree, woodland, hedge and/or hedgerow of visual, heritage or nature conservation value will only be acceptable where:

- a. c. it is addressed firstly by seeking to avoid the impact, then to minimise the impact and finally where appropriate to include mitigation measures; or
- b. d. there are sound arboricultural reasons to support the proposal.

Where impacts remain the need for, and benefits of, the development in that location must clearly outweigh the loss, threat or damage.

Where loss, threat or damage cannot be fully addressed through minimisation and/or mitigation measures the proposal may be supported if alternative measures such as reinstatement of features, additional landscaping, habitat creation or tree planting that will compensate for the harm and can be implemented and established before development starts.

Proposals for major scale development will be required to include additional new trees to form part of the landscaping for the proposal, the form of which will be determined by negotiation.

Trees or groups of trees subject to Tree Preservation Order protection will be protected from damage or removal, including their root protection zone.

- 1.29 Advice is available to woodland owners from the Essex Farming and Wildlife Advisory Group, Essex County Council, Thames Chase Project Team or the Forestry Commission as to the most appropriate management of their sites. Woodland management must comply with the UK Forestry Standard and follow practices laid down in the Forestry Commission's Environmental Guidelines. In any new woodland planting scheme, the Council will seek the planting of tree and shrub species suited to the sites and aims of the scheme. Where conservation is the primary objective, there will be a presumption in favour of native species. The Forestry Commission is the Statutory Authority with powers to provide grant aid and issue Felling Licences. The Forestry Commission is also charged with the administration of the Environmental Impact Assessment (Forestry) Regulations (1999).
- 1.30 Trees and hedgerows are protected in the Town and Country Planning Act 1990, the Tree Regulations 2012 and Hedgerow Regulations 1997. The Council understands that the contribution that trees, either as woodland or individual specimens and hedgerows, make to the landscape is significant. In particular the range of benefits for wildlife and people they provide as well as helping mitigate the effects of climate change.
- 1.31 Trees, woodlands, hedges and hedgerows provide important habitats for a range of species, provide shelter, help reduce noise and atmospheric pollution and also store carbon dioxide,

helping to mitigate against climate change. They add to the character and quality of the local environment, can have historic value (e.g. ancient woodlands) and can offer recreation opportunities supporting health and wellbeing.

- 1.32 Woodlands, hedges and hedgerows wherever possible, and where appropriate, should be incorporated within a landscape scheme. This can assist in integrating the scheme into the wider local environment by providing some mature, established landscape elements. When this cannot be achieved, or it is known that trees are being lost to disease, mitigation or replacement compensatory measures will be required to ensure no loss to the overall value to the environment. These should be secured by condition or through a S106 Agreement.
- 1.33 Some specific trees or groups of trees are of particular value such that their removal would have a significant impact upon the local environment and its enjoyment by the public. Where they are potentially under threat, the Council will make Tree Preservation Orders (TPO) to protect them. Where trees are covered by TPOs, the policy is intended to safeguard them from damage or removal unless there are overriding reasons for the development.
- 1.34 A hedge or Hedgerows is generally found within a settlement and often has an amenity or ornamental role; a hedgerow is more commonly found in a rural setting although some old hedgerows remain within settlements and often provide field boundaries and may comprise a range of native species. They make an important contribution to the character of an area and may be historically and occasionally archaeological important. They also contribute significantly to biodiversity. Therefore, like trees, hedgerows should be protected for their amenity, biodiversity and historic value. Development that is likely to impact hedgerows must be subjected to an assessment against the criteria of the Hedgerow Regulations 1997.
- 1.35 If a Hedgerow is deemed to be important under the Hedgerow Regulations, development proposals must demonstrate that adverse impacts upon the Important Hedgerow will be avoided, and impacts that cannot be avoided are mitigated on-site.
- 1.36 In considering development proposals, the Council will normally expect the retention and beneficial management of any existing hedgerow; where a hedgerow is to be removed, the council will, where appropriate, require its replacement with native species, either within or neighbouring sites, as part of its mitigation strategy, or demonstrate how it will contribute to biodiversity net-gain through other appropriate habitat creation.
- 1.37 In granting planning permission for new development where significant hedgerows are to be retained, the Council will ensure that these hedgerows are given appropriate protection during the building works, through the use of planning conditions.

POLICY NE04: THAMES CHASE COMMUNITY FOREST

Development proposals which fall within the Thames Chase Community Forest Area will be expected to make a positive contribution towards its implementation in addition to other relevant policies within the Local Plan.

Developers will be expected to work collaboratively in partnership with the Land of the Fanns Partnership to develop scheme proposals through the masterplanning process, in line with Policy xxx.

- 1.38 The Council supports the aims of the Thames Chase Plan, being::
- c. To protect, improve and expand the woodland character of the Community Forest;
 - d. To sustain the natural integrity of the Community Forest's air, land and water including wildlife;
 - e. To integrate Climate Change adaption and mitigation responses into the developing Community Forest;
 - f. To use the Community Forest to improve local health and wellbeing, volunteering, learning and employment; and
 - g. To enable effective partnership working from national to local level to maximise the impact of available resources.
- 1.39 Thames Chase is a community forest of 9,842 hectares located in more than 47 sites in London and Essex. Brentwood Borough Council is one of the four local authority partners along with the Forestry Commission, Essex County Council, the Woodland Trust, Essex Wildlife Trust, the London Wildlife Trust and The Royal Society for the Protection of Birds. One of 12 Community Forests established nationally since 1990, the forest covers over 500 hectares of woodland, common and recreational land within Brentwood Borough (about one quarter of the area of Thames Chase). Extended in 1999, the Forest now incorporates Thorndon and Hartswood Sites of Special Scientific Interest (SSSI) and Warley Place Nature Reserve, with the area of the Forest extending to the southern borough boundary and as far east as the A128.
- 1.40 Centred round regeneration, quality green space creation, management and community engagement, the Community Forest Concept has increased woodland coverage from 9% to 15% locally, and secured funding to create over 330 hectares of new green space provision. Wider work involves extensive tree planting within the Borough, opportunities for sport and recreation, wildlife conservation, agricultural and timber production.
- 1.41 The Thames Chase Plan provides a green framework, in line following on from with the London Green Grid, for supporting Countryside Stewardship: woodland support applications and enhancing the local environment, including through landscaping, conservation works and upgrading of footpaths or bridleways. Such benefits are welcome provided uses are consistent with wider Green Belt Objectives since they would not be considered as a justification for allowing inappropriate development in the Green Belt where development that would otherwise be unacceptable.

- 1.42 Thames Chase Plan³ maintains the original commitment to developing strategic woodland, habitats and access on a forest-wide scale. However there is a stronger emphasis on area-based project delivery that translates forest wide ambition into tangible, quantifiable initiatives on the ground. Brentwood Borough Council is a partner in the Land of the Fanns Partnership and supports the Landscape Conservation Action Plan (LCAP).
- 1.43 Landscaping proposals, both hard and soft, must form an integral part of development proposals. The Council will seek appropriate conditions and/ or planning obligations to secure the implementation of landscaping schemes and the replacement of trees, hedgerows or the protection of natural features during the course of development. Payment for the maintenance and management of new landscaping may be sought and controlled via a planning obligation.
- 1.44 This policy provides a framework for conserving and enhancing biodiversity assets. The Council will support the creation, restoration, retention and enhancement of biodiversity interests. Where opportunities allow, the design of a development should incorporate beneficial biodiversity features, such as swift boxes, bat or bird boxes, bat bricks, green roofs or the creation and connection of wildlife corridors through landscaping or other means. New water features such as attenuation ponds that can provide new wetland areas, removal of redundant in-channel structures and culverts, can also create and restore wildlife habitats.
- 1.45 Biodiversity enhancement should be considered from the start of the development process. This will be assessed on a proportionate basis taking into account the size and type of development and its location.
- 1.46 Impacts on existing biodiversity should be minimised and mitigated through measures such as returning hard standing to green space, the installation of green roofs, green walls, the provision of landscaping, or off-site provision such as new street trees in order to achieve the principle of no net loss of biodiversity. The principle of no net loss can be met through off-site provision where site constraints mean that it cannot be achieved on site. Any off-site provision must be secured robustly. Rainwater attenuation features should be incorporated to achieve greenfield run off rates where possible.

³ Thames Chase Trust (2014), The Thames Chase Plan and Thames Chase Trust (2016), Land of the Fanns Partnership

Promoting a Clean and Safe Environment

POLICY NE06: AIR QUALITY

Development is required to meet or exceed the 'air quality neutral' standard, especially within Air Quality Management Areas (AQMAs) and where development is near or promotes land uses to be used by those particularly vulnerable to poor air quality (such as children and older adults).

Development proposals should minimise exposure to existing poor air quality and make provision to address local air quality exceedances through design solutions and measures such as the use of low or zero emission transport; reduced reliance on private motor vehicles; buffer zones around schools and other community infrastructure; amongst others.

Development proposals should give equal weight to the consideration of indoor air quality, with building design solutions specifying proven ventilation systems, especially with proposals which consider energy efficient building solutions, to avoid the unintended consequences of poor indoor ventilation.

An air quality impact assessment, based on current best practice, is required as part of the planning application for:

- a. major developments;
- b. employment led developments
- c. developments which will require substantial earthworks or demolition;
- d. developments which include education and health facilities or open space (including child play space);
- e. new build developments in areas of sub-standard air quality; and
- f. Developments which propose the use of Combined Heat and Power, biomass boilers or similar solutions that might impact air quality.

Where an air quality assessment indicates that a development will cause harm to air quality or where end users could be exposed to poor air quality, development will be resisted unless mitigation measures are adopted to reduce the impact to acceptable levels.

New build developments which propose to provide any private, communal, publicly accessible open space or child play space in areas of sub-standard air quality are required to demonstrate that they have considered the positioning and design of the open space to reduce exposure of future users to air pollution.

- 1.47 AQMAs can be found on the Council website. The Council will use planning obligations or conditions to ensure air quality impacts are addressed.
- 1.48 This policy aims to address existing air quality and ensure new development does not contribute to the worsening of air quality. Where necessary, the council may require the development, through planning conditions, to undertake additional monitoring as part of the construction process, where the impact is deemed to be most significant.
- 1.49 Air quality assessment must also outline the measures to mitigate any adverse effects identified during construction or operation. This could include: reducing vehicular traffic levels; encouraging sustainable movement patterns; methods of carrying out construction; actions to reduce emissions throughout the lifetime of the building; reducing emissions from associated plant equipment; improving or greening the public realm; and ensuring decentralised energy facilities do not contribute to poor air quality. Best practice should be followed, such as Institute of Air Quality Management's (IAQM) Guidance on the assessment of dust from demolition and construction (2014).
- 1.50 Transport generated emissions are the main source of poor air quality in the borough; Monitoring data of air pollution in 2015 has shown that the air quality standard for nitrogen dioxide has been met since 2008, but four areas remain as problematic and defined as an AQMA designation. The areas that will remain as AQMAs are: M25/Brook Street Roundabout; A12/Warescot Road/ Hurstwood Avenue/Ongar Road; and A128/A1023 Junction (Wilson's Corner). Monitoring will continue and the AQMA areas adjusted accordingly.

POLICY NE07: FLOOD RISK

Proposed development will be required to avoid where possible flood risk to people and property and manage any residual risk, taking account of the impacts of climate change by:

- a. applying the Sequential Test, directing development to areas at lowest risk of flooding;
- b. if necessary, applying the Exception Test;
- c. safeguarding land from development that is required for current and future flood management; and
- d. using opportunities offered by new development to reduce the causes and impacts of flooding.

In areas designated as functional flood plains, development will only be permitted in accordance with national policy and guidance, and then only if:

- e. proposals are located in the lowest appropriate flood risk zone with regard to guidance set in the Brentwood Strategic Flood Risk Assessment as part of the sequential test;
- f. development would not constrain the natural function of the flood plain, either by impeding flow or reducing storage capacity; and
- g. development is constructed so as to remain operational even at times of flood through resistant and resilient design.

Where development is permitted within flood risk areas it must demonstrate that, where required, it will reduce fluvial and surface water flood risk and manage residual risks through appropriate flood mitigation measures including emergency planning and response. These measures may include, but are not restricted to:

- h. land management, landscape and planting measures;
- i. SuDS, including source control techniques;
- j. strategic water storage;
- k. flow diversion and attenuation; and
- l. property level protection, which can include appropriate finished floor levels, safe area(s), emergency flood planning and flood resilience measures

Applications will need to demonstrate that the sewerage provider has been contacted to identify whether the sewerage network has adequate capacity both on and off site to serve the development and to assess the need to contribute to any additional connections for the development to prevent flooding or pollution of land and water courses.

- m. Where sewerage capacity is identified as insufficient, development will only be permitted if it is demonstrated that improvements will be completed prior to occupation of the development.

Where the site is located within a Critical Drainage Area (CDA). Development may have the potential to impact on the CDA in respect of surface water flooding. As a result of this the site will require an individually designed mitigation scheme to address this issue.

- n. This policy should be read in conjunction with Policy BE08: Sustainable Drainage; Policy NE02: Recreational disturbance Avoidance and Mitigation Strategy (RAMS); and Policy NE01: Protecting and enhancing the natural environment.

- 1.51 The Council will work in partnership with the Environment Agency and the Lead Local Flood Authority (Essex County Council) to manage and mitigate flood risk. All development proposals in areas at risk of flooding will need to submit a Flood Risk Assessment (FRA) in accordance with Sustainable Drainage Policy XXX, commensurate with the scale of the flood risk and recognising all likely sources of flooding – surface water, ground water and watercourse flood risk.
- 1.52 The Brentwood Strategic Flood Risk Assessment (2018) maps flood risk zones in the Borough, with surface water flooding shown most notably on the A12 north west of Brentwood and on roads around Ingatestone. Incidences of fluvial (river) flooding are recorded along the eastern boundary of the River Wid and from Stondon Hall Brook and the River Roding to the north of the Borough. Areas at risk of fluvial flooding are mainly rural, and include low lying areas south of the A127 west and east of West Horndon.
- 1.53 The Surface Water Management Plan for Brentwood Borough (2015) used historical flood data from the flood risk assessment to determine the overall surface water flooding hotspots and then further modelling was carried out to understand the flooding mechanism and risks in more detail. The models were run with 30, 100 and 200 year rainfall events of various durations and the effects of climate change were investigated using the 100 year event. This identified a number of key areas as having significant flood risk which might benefit from mitigation options. Possible mitigation measures have been discussed and indicative costings provided.
- 1.54 The Sequential Test applies a hierarchical approach to avoiding and managing flood risk. In the first instance, this aims to locate development in a way that avoids flood risk to people

and property, and manage any residual risk, taking account of the impacts of climate change.

- 1.55 Where a site-specific Flood Risk Assessment (FRA) is required this should be considered by and approved by the Environment Agency in line with criteria set by national policy and guidance. Development should be guided towards areas of lower flood risk through application of the Sequential Test and where applicable, an Exception Test will be required. The assessment will show the risk to the site in greater detail and advise on mitigation measures necessary.
- 1.56 The Brentwood Water Cycle Study (2018) identifies areas where there may be limitations to the waste water infrastructure and therefore where applicants need to carry out appropriate appraisals to assess whether the proposed development will lead to overloading of existing waste water infrastructure.
- 1.57 Developers are encouraged to refer to the Environment Agency's Flood Risk Standing Advice for planning applicants and early pre-application discussion with Brentwood Borough Council, Essex County Council as the lead local flood authority, and Environment Agency, is advised.
- 1.58 In line with the Local Plan Spatial Strategy, the Council wishes to ensure that sustainable development is achieved primarily through the regeneration and the redevelopment of previously developed sites. When considering the development of such sites the Council will consider the potential risk of pollution arising from contamination and the impact on human health, property, biodiversity and the wider environment. However, contamination is not restricted to previously developed land but also occurs on greenfield sites and can arise from natural sources as well as from human activities.

POLICY NE08: CONTAMINATED LAND AND HAZARDOUS SUBSTANCES

Development proposals involving the use, movement or storage of hazardous substances will only be permitted within Employment Areas and planning permission will only be granted for development on, or near to land which is suspected to be contaminated, where the Council is satisfied that:

- a. there will be no threat to the health or safety of future users or occupiers of the site or neighbouring land;
- b. there will be no adverse impact on the environment and quality of local groundwater or quality of surface water; and
- c. there would be no unacceptable adverse impacts on property.

The Council will require applicants proposing development on or near known or potentially contaminated land to submit a detailed site characterisation and tiered risk assessment and to identify any remedial measures that need to be carried out (including remedial treatment and monitoring arrangements), provided in a detailed Remediation Scheme. Evidence of remediation should be to the satisfaction of the relevant statutory regulators.

Planning permission will not be permitted for development on sites that lie near or adjacent to a hazardous substance site or notifiable installation, if the safety of the future occupiers of the development could be adversely affected by the normal permitted operations of the existing uses.

- 1.59 Where sites are known to be contaminated or where contamination is subsequently discovered, the Council will require any planning application to be accompanied by a detailed report appraising the levels and extent of contamination together with measures that will remediate the contamination.
- 1.60 The adverse impact on the environment and quality of local groundwater or surface water should consider standards outlined in the ECC SuDS Design Guide (2016).
- 1.61 Where insufficient information is submitted with a planning application for a contaminated, potentially contaminated or suspected contaminated site, the Council will take a precautionary approach when making a decision.
- 1.62 In the context of development management, the Essex Contaminated Land Consortium's Land Affected by Contamination – Technical Guidance for Applicants and Developers (2014), provides detailed information on how to deal with land contamination. This provides guidance on how planning conditions may be used to secure suitable remediation when dealing with planning applications where contaminated land is identified.
- 1.63 The Planning (Hazardous Substances) Act 1990 aims to prevent major accidents and limit the consequences of such accidents. In considering any planning applications for development which may involve hazardous substances the Council will therefore need to be completely satisfied that the proposal will not constitute a hazard to existing communities or the local environment. Similarly, existing consents will be an important consideration in the determination of sensitive uses such as housing. In appropriate cases the Council will therefore consult and liaise with the Health and Safety Executive to minimise potential risks.
- 1.64 Hazardous substances are defined by the Planning (Hazardous Substances) Regulations 1992. The Council is required to ensure that land use policies maintain and secure appropriate distances between establishments where hazardous substances are present and residential areas, areas of public use and areas of national sensitivity or interest. The Council considers that it would be inappropriate to locate new development on or near to establishments where hazardous substances are present where this would harm public safety.

- 1.65 Similarly, it would be inappropriate to grant planning permission for development proposals to expand existing sites handling or processing hazardous substances where this would harm public safety. Should a developer have reason to believe a development site is contaminated then they must consult the Council as early as possible before an application is submitted.
- 1.66 Certain sites and pipelines are designated as notifiable installations by virtue of the quantities of hazardous substance stored or used. Where development is proposed within the consultation distance of notifiable installations, the Council is required to consult the Health and Safety Executive on the suitability of that development in relation to the risks that the notifiable installation might pose to the surrounding population.

POLICY NE09: FLOODLIGHTING AND ILLUMINATION

Development proposals involving floodlighting or any other means of illumination (other than advertisements) will only be permitted where the scheme:

- a. is appropriate for the intended use and has been appropriately designed to limit inappropriate light direction and intensity;
- b. is energy efficiency;
- c. provides the minimum level of light necessary to achieve its purpose;
- d. uses an appropriate light spectrum and specification that will not be harmful to nocturnal wildlife or human health;
- e. minimises losses to the night sky and does not give rise to any increase in sky glow; and
- f. ensures the appearance of the installation when unlit is acceptable, provides adequate protection from glare and light spill particularly in sensitive locations, such as residential areas, sites of nature conservation interest, and have no adverse effect on amenity, highway safety, landscape or historic character.

Applicants will need to submit a full lighting strategy, proportionate to their application, specifying details of lights, their power and type, overall level and distribution of illumination and times of operation. Conditions may be imposed to restrict lighting levels and hours of use or require measures to be taken to minimise adverse effects.

- 1.67 External lighting can contribute to a healthy, safe environment, enhance the appearance of buildings and extend hours of operation of some activities eg sports, Insensitive or excessive illumination can, however, have a harmful impact on the local area and on the enjoyment of the night sky, particularly in open countryside. Excessive lighting can be detrimental to residential amenity, health and, in some circumstances, can be a statutory nuisance. Light pollution represents a wasteful use of energy, contrary to the aims of sustainable development.
- 1.68 Whilst local residents acknowledge that street lighting for safety reasons is important (Brentwood Strategic Growth Options, 2015), they place a high value on being able to see the night sky and avoid unnecessary lighting (Brentwood Neighbourhood Consultation, 2011). Proposals for lighting or floodlighting of buildings, sport, leisure or other facilities should take into account the effect of light and lighting columns on the character and amenity of the surrounding area.
- 1.69 They should also consider the effect of lighting in terms of sky glow, glare and light trespass, effect on wildlife, and any possible disturbance arising from the associated use. Proposals should be unobtrusive in terms of the light source and distribution of light, the aura created by the overall illumination and appearance of any structures upon which lights are mounted.
- 1.70 Where appropriate, the Council will control the location, form, timing and level of all external lighting and illumination.
- 1.71 Applicants should refer to the Institute of Lighting Engineers' guidance when considering the development and installation of lighting schemes. The Council will require a lighting strategy to accompany all full planning applications.
- 1.72 Lighting installations on Listed Buildings that materially affect their character, or illumination of some types of outdoor advertisements, will also require consent.
- 1.73 Flood risk include risk from all sources of flooding, including from rivers, from rainfall, from rising groundwater, which can overwhelm sewers and drainage systems, and from reservoirs, canals, lakes and other artificial sources. Incidences of high rainfall are forecast to increase in intensity as a result of climate change. Developing inappropriately in areas at risk from flooding, can put property and lives at risk and therefore this policy seeks to ensure this does not happen.
- 1.74 Flood risk in Brentwood Borough is not limited to areas in very close proximity to local watercourses. Much flooding within the Borough is the result of rapid surface water runoff and ponding, in areas with low lying roads. This means that drainage is equally important for avoiding flooding.
- 1.75 This Plan has been subject to a Strategic Flood Risk Assessment (SFRA)⁴ and Water Cycle Study⁵ The Council has worked alongside Thames Water and Anglian Water to produce the Water Cycle Study to ensure there is sufficient capacity for water supply and waste water management, and to identify any gaps in capacity.

⁴ Brentwood Strategic Flood Risk Assessment (2018), Wood

⁵ Brentwood Water Cycle Study (2018), Wood.

- 1.76 As a Lead Local Flood Authority, Essex County Council has produced Surface Water Management Plans for boroughs in Essex⁶ and with updates to the Critical Drainage Areas (CDAs) for the borough. Potential development sites in areas of identified flood risk have been subject to sequential and exception tests. This is detailed in Appendix XX.

Green Belt and Rural Development

Green Belt Local Context

- 1.2 Brentwood Borough Council comprises a main urban area with villages dispersed north and south of the main town. All built-up areas are entirely within the London Metropolitan Green Belt. Brentwood is c. 15,312 ha in area, of which 13,700 ha of land is currently designated as Green Belt (over 89% of the borough). Brentwood currently makes up approximately 2.83% of the overall London Metropolitan Green Belt area. This makes Brentwood a borough with the sixth highest Green Belt area in England. This significantly limits land available for development within the Borough and has created the sharp contrast between urban and rural areas with little or no urban fringe.
- 1.3 London Metropolitan Green Belt was established by the Town and Country Planning Act 1974 to control the outward spread of London into surrounding counties such as Essex, to ensure land it kept permanently open. This designation has provided an important protection to the Borough's countryside. The Council strongly support the continued protection of the Metropolitan Green Belt, as the rural countryside setting is central to the borough's character, which has remained largely unspoilt.
- 1.4 Given Brentwood's proximity to London and the road network, there is huge demand and pressure for development. The council's objective assessed housing need shows that it must accommodate this growth.
- 1.5 The Council has had to make some difficult, but informed decisions around the alternation of the Green Belt boundary, in line with National Planning Policy. National Policy is clear that, once established, Green Belt boundaries should only be altered where exceptional circumstances are fully evidenced and justified, through the preparation of updating of development plans. Para 136 states that Strategic policies should establish the need for any changes to Green Belt boundaries, having regard to their intended permanence in the long term, so they can endure beyond the plan period. Where a need for changes to Green Belt boundaries has been established through strategic policies, detailed amendments to those boundaries may be made through non-strategic policies, including neighbourhood plans.
- 1.6 The Sustainability Appraisal has examined fully all other reasonable options for meeting the borough's identified need for development and has concluded that the chosen Site Allocations are the least impactful and promote sustainable patterns of development.

⁶ Brentwood Surface Water Management Plan (2015) Essex County Council

- 1.7 Therefore, the Borough's Growth Strategy has carefully selected sites and have prioritised; brownfield and previously development land; locations which are sustainable and do not result in the detrimental impact on important environmental designations; areas where the purposes of the Green Belt can still be demonstrated as being intact thereby maintaining the essential characteristics of 'openness'. These exceptional circumstances have resulted in a 1% release of land from the Green Belt and have defined the need for Green Belt boundary changes in the Policy SP02 Managing Growth, and depicted in Fig xx Growth Areas. This release has had to be carefully balanced to ensure sustainable development can be achieved, and that the longer-term purpose, integrity and benefit of the Green Belt remains intact.

Purpose of the Green Belt

- 1.8 The National Planning Policy Framework sets out the five main purposes of the Green Belt:
- a. to check the unrestricted sprawl of large built-up areas;
 - b. to prevent neighbouring towns merging into one another;
 - c. to assist in safeguarding the countryside from encroachment;
 - d. to preserve the setting and special character of historic towns; and
 - e. to assist in urban regeneration, by encouraging the recycling of derelict and other urban land.

Encouraging the Beneficial Use of Green Belt

- 1.9 The NPPF (para 141) promotes the beneficial use of the Green Belt. It states that once Green Belts have been defined, local planning authorities should plan positively to enhance their beneficial use, such as looking for opportunities to provide access; to provide opportunities for outdoor sport and recreation; to retain and enhance landscapes, visual amenity and biodiversity; or to improve damaged and derelict land. In Brentwood, there are many areas of the Green Belt which also perform other key environmental and recreational functions that must also be maintained in accordance with the relevant policies. For example, there are large areas of woodlands, golf courses, playing pitches, parks, extensive areas important for nature conservation including Hutton, Weald and Thorndon Country Parks, three Sites of Special Scientific Interest (SSSI) and 147 Local Wildlife Sites. There is also an extensive network of public rights of way providing public access to open countryside. Enhancement of these features is welcomed to maintain the beneficial use of the Green Belt.
- 1.10 Furthermore, the NPPF states that any development proposals within Community Forests in the Green Belt should be subject to the normal policies for controlling development in Green Belts. The Thames Chase Community Forest reaches across much of the south western area of the borough. The Thames Chase Community Forest offers a valuable opportunity for improving the environment by upgrading the landscape and providing for recreation and wildlife and this will be supported in line with national policy and guidance. The Council will

encourage the beneficial use of the Green Belt, through opportunities to improve access, outdoor sport and recreation; retain and enhance landscapes, visual amenity and biodiversity; or improve damaged and derelict land.

1.11

Proposals Affecting Green Belt

- 1.12 In certain circumstances, development in the Green Belt will be deemed necessary to support rural economies, to ensure the sustainability of villages, as well as to allow for necessary upgrade of existing buildings and structures. Such development will be considered carefully in accordance with the provisions of the National Planning Policy Framework to confirm the level of ‘appropriateness’ and to ensure that there will be no detrimental impact to the openness of the Green Belt. Para 145 & 146 of the NPPF states when such exceptions might apply. Notwithstanding these exceptions, additional considerations of impact will be applied, in accordance with Policies.
- 1.13 It should be noted that some villages are deemed to be in the Green Belt, such as Fyerning, Great Warley, South Weald. Planning Applications affecting these villages will be assessed in accordance with the Green Belt Policies in the first instance; limited infilling in villages in the Green Belt may be permitted and accepted as appropriate, subject to ensuring no detrimental harm to the Green Belt, in line with Policy XX.
- 1.14 The following settlements are excluded from the Green Belt: Blackmore, Brentwood, Doddinghurst, Herongate, Hook End, Hutton, Hutton Mount, Ingatestone, Ingrave, Kelvedon Hatch, Mountnessing, Pilgrims Hatch, Shenfield, Stondon Massey, West Horndon and Wyatts Green.

Development in the Green Belt

- 1.15 Although Green Belt is not an environmental designation, it has provided an important protection to the Borough’s countryside and is a key reason why the character of the Borough has been retained over time. The character of villages set amongst a high quality countryside is intrinsically linked to Green Belt designation.
- 1.16 89% of the Borough is within Green Belt, ranked sixth highest in England (most Green Belt within an authority’s boundary expressed as a percentage of total area).
- 1.17 The (London) Metropolitan Green Belt was introduced as part of the Town and Country Planning Act in 1947 to check the urban sprawl of London into surrounding counties, such as Essex. National policy sets out the key functions of Green Belt, which are reflected in the Council’s Local Plan policies.

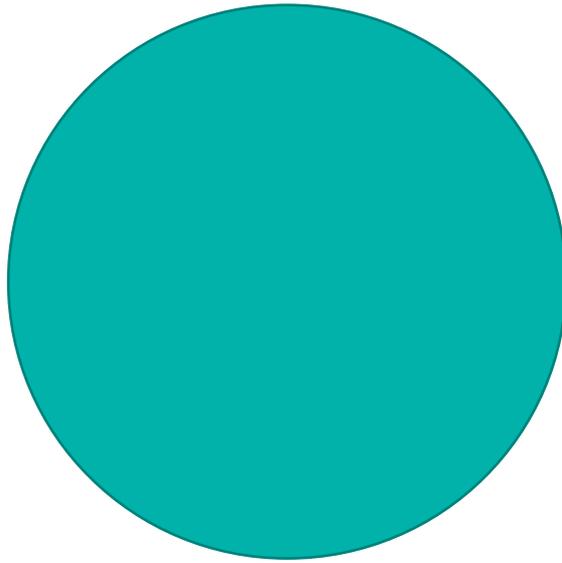


Figure 1: Metropolitan Green Belt

POLICY NE12: GREEN BELT

The Metropolitan Green Belt within Brentwood Borough (as defined by the policy map) will be protected from inappropriate development so that it continues to maintain its openness and serve its key functions.

All development proposals within the Green Belt will be considered in accordance with the provisions of the NPPF.

Planning Applications will not be supported, and will be refused if:

- they are deemed to impact the five purposes of the Green Belt;
- do not contribute to the beneficial use of the Green Belt;
- are not considered appropriate development; and
- other material considerations apply.

The Metropolitan Green Belt boundaries within Brentwood Borough will be maintained in order to continue to serve its key function, and be protected from inappropriate development, and to:

- a. Preserve the Borough's special character and landscape setting;
- g. Check the growth of London and prevent ribbon development and urban sprawl;

- h. Prevent the coalescence of settlements;
- i. Assist in safeguarding the countryside from encroachment; and
- j. Assist in urban brownfield land reuse, by encouraging the recycling of derelict and other urban land.

Development proposals within the Green Belt will be assessed in accordance with national policy and guidance. Development within the Green Belt will only be permitted if it maintains the Green Belt's openness and does not conflict with the purposes of the Green Belt or harm its visual amenities.

Consideration will be given to Gypsy and Traveller allocations within the Green Belt as long as it meets the requirements set out in Policy BE XX: Proposals for Gypsy, Travellers and Travelling Showpeople on Unallocated Land.

Consideration will also be given to planning applications related to Sports and Recreational Facilities provided they meet the following criteria:

- b. The openness of the green belt is not compromised;
- c. In the situation for parking facilities, where appropriate, permeable surface should be considered to avoid surface water flooding;
- d. Where the relocation and/or replacement of a sport and/or recreational building is being proposed, the building footprint is to be no larger than the existing footprint; and
- e. The proposal adheres to the policy requirements as set out in BE41: Open Space, Community, Sport and Recreational Facilities.

Proposals related to sustainable energy technologies will be supported as long as it adheres to the requirements set out in this policy, BE02: Sustainable Construction and Resource Efficiency, and BE03: Carbon Reduction, Renewable Energy And Water Efficiency.

2. Brentwood Borough is entirely located within the London Metropolitan Green Belt, northeast of Greater London. Brentwood is c. 15,312 ha in area, of which 13,700 ha of land is currently designated as Green Belt (over 89% of the borough). Brentwood currently makes up approximately 2.83% of the overall London Metropolitan Green Belt.

2.1 Green Belt is a policy designation which keeps land permanently open to prevent urban sprawl. The historical development of Brentwood has led to the current central, urban areas of Brentwood and Shenfield, separated by green wedges of Green Belt. The majority (89%) of the Borough lies within the Green Belt and comprises a mix of villages, residential properties and agricultural land. This significantly limits land available for development within

the Borough and has created the sharp contrast between urban and rural areas with little or no urban fringe.

- 2.2 There are large areas of woodlands, golf courses, playing pitches, parks, green wedges and an extensive network of public rights of way providing public access to open countryside. The Green Belt contains extensive areas important for nature conservation including Hutton, Weald and Thorndon Country Parks, three Sites of Special Scientific Interest (SSSI) and 147 Local Wildlife Sites. The Thames Chase Community Forest reaches across much of the south western area of the borough.
- 2.3 In order for Brentwood Borough to grow economically and to provide adequate housing for its population, land must be made available for such growth. Failure to do so might undermine the future prosperity of the Borough. The proposed decamping of various existing employment sites onto a new strategic employment location at Junction 29 of the M25 releases further locations for sustainable housing development on brownfield sites. These locations have the ability of immediate access to existing communities and infrastructure.
- 2.4 To ensure the Metropolitan Green Belt continues to serve its key functions within Brentwood Borough, it will be protected from inappropriate development.
- 2.5 Notwithstanding the above, further development within the Green Belt will need to meet the requirements of Green Belt policy in the NPPF, be in accordance with other policies in this Plan, does not harm its visual amenities and not compromise the openness of the Green Belt, or increase the risk of urban sprawl.

POLICY NE13: NEW DEVELOPMENT, EXTENSION AND REPLACEMENT OF BUILDINGS IN GREEN BELT

Within the defined Green Belt the construction of new buildings are considered inappropriate development in the Green Belt. Exceptions to this are:

- a. Building for agriculture and forestry;
- b. Provision of appropriate facilities for outdoor sport, outdoor recreation and for cemeteries, as long as it preserves the openness of the Green Belt and does not conflict with the purposes of including land within it;
- c. The extension or alteration of a building provided that it does not result in disproportionate additions over and above the size of the original building. In case of a dwelling that following also applies:
 - i. The existing dwelling is lawful, permanent, designed and originally constructed for residential use;
 - ii. A substantial identifiable part of the original dwelling remains in place;

- iii. The design of the extension is appropriate to the host building and its setting and does not harm the openness or function of the Green Belt; and
 - iv. Applications to extend domestic curtilage into the Green Belt will not be permitted
- d. The replacement of a building provided the new building is in the same use and not materially larger than the one it replaces; In addition the replacement of existing buildings will be allowed provided the following conditions are met:
- i. The proposal would not lead to an expansion or intensification of the activity on the site;
 - ii. Any replacement dwelling will be expected to be located in the position of the existing dwelling expect where the local planning authority considers an alternative sitting to be more appropriate in green belt or amenity terms; and
 - iii. Where the existing dwelling is a bungalow it should be replaced by a bungalow
- e. Limited infilling in villages, and limited affordable housing for local community needs under policies set out in the Local Plan.
- f. Limited infilling or the partial or complete redevelopment of previously developed sites (brownfield land), whether redundant or in continuing use (excluding temporary buildings), which would not have a greater impact on the openness of the Green Belt and the purpose of including land within it than the existing development.

The Council will encourage the beneficial use of the Green Belt, through opportunities to improve access, outdoor sport and recreation; retain and enhance landscapes, visual amenity and biodiversity; or improve damaged and derelict land.

The following settlements are excluded from the Green Belt as identified on the Proposals Map: Blackmore, Brentwood, Doddinghurst, Herongate, Hook End, Hutton, Hutton Mount, Ingatestone, Ingrave, Kelvedon Hatch, Mountnessing, Pilgrims Hatch, Shenfield, Stondon Massey, West Horndon and Wyatts Green.

Microgeneration integral to individual new development are encouraged, and may be acceptable under permitted development. Where not permitted development, the renewable energy installations should not impact on the openness, function and permanence of the Green Belt or conflict with the purpose of the land within it. Proposals for larger scale renewable energy projects in the Green Belt will

comprise inappropriate development (NPPF Paragraph 91) and therefore only in very special circumstances will they be permitted.

Proposals to extend dwellings within the Green Belt (other than those identified in Policy 9.10) will be permitted in exceptional circumstances, in order to ensure the new building is not materially larger than the original, provided all the following criteria are met:

- g. the existing dwelling is lawful, permanent, designed and originally constructed for residential use;
- h. a substantial and identifiable part of the original dwelling remains in place;
- i. the total size of the dwelling as extended (including conservatories) does not exceed the original habitable floor space by more than 30%;
- j. the design of the extension is appropriate to the host building and its setting and does not harm the openness or function of the Green Belt; and
- k. application to extend domestic curtilage into the Green Belt will not be permitted.

Extensions to replacement dwellings will only be permitted where the habitable floorspace of the replacement dwelling and the total habitable floorspace of any extensions permitted together with that applied or would not be greater than 30% above the original habitable floor area of the previous dwelling which had been replaced.

Where appropriate, a condition will be imposed to prevent this habitable floorspace limitation from being exceeded through the implementation of permitted development rights.

Extension of a dwelling resulting, from the conversion of a rural building will not be permitted, notwithstanding permitted development rights.

Outside settlements and established areas of development listed in Policy 9.8 and Policy 9.10, the replacement or substantial rebuilding of permanently occupied dwellings will only be allowed subject to the following criteria:

- l. where the existing dwelling has not been previously extended or where it has been extended by less than 30% above the original habitable floor space:
 - m. the floor space of the replacement dwelling will be no larger than 30% above the original habitable floor space, or
- n. where the existing dwelling has been extended by more than 30% above the original habitable floor space:

- o. the replacement habitable floor space of the replacement dwelling will be no larger than the existing habitable floor space.
- p. the visual mass of the replacement dwelling should be no greater than that of the existing dwelling;
- q. where the original, existing dwelling is a bungalow it should be replaced by a bungalow; and
- r. any replacement dwelling will be expected to be located in the position of the existing dwelling except where the local planning authority considers an alternative siting to be more appropriate in green belt or amenity terms.
- s. where appropriate, a condition will be imposed removing permitted development rights to extend the building, use the roof space for habitable purposes and erect walls, fences or further out-buildings.

(This policy is not intended to relate to uses created via the re-use of rural buildings).

- 2.6 Uses which are appropriate in the Green Belt include agriculture and forestry buildings; appropriate facilities for outdoor sport outdoor recreation and cemeteries as long as these preserve the openness of the Green Belt; extension or alteration of a building provided it does not result in disproportionate additions over and above the size of the original building; the replacement of a building, provided the new building is in the same use and not materially larger than the one it replaces; limited infilling in villages, and limited affordable housing for the local community; the partial or complete redevelopment of previously developed sites (brownfield land) and does not have a greater impact on the openness of the Green Belt; and the re-use of buildings provided that the buildings are of permanent and substantial construction.
- 2.7 Microgeneration integral to individual new development are encouraged, and may be acceptable under permitted development. Where not permitted development, the renewable energy installations should not impact on the openness, function and permanence of the Green Belt or conflict with the purpose of the land within it. Proposals for larger scale renewable energy projects in the Green Belt will comprise inappropriate development (NPPF Paragraph 91) and therefore only in very special circumstances will they be permitted.
- 2.8 Temporary and permanent Traveller sites are inappropriate development in the Green Belt. However, certain existing sites are proposed to provide permanent provision, as set out in Policy 7.10.

Dwelling Extensions

- 2.9 Existing dwellings in the Green Belt benefit from the same permitted development rights as dwellings elsewhere (provided permitted development rights have not been removed).

Extensions to properties can, however, lead to urbanisation, increases in population and activity in the Green Belt, and a loss of small dwellings. This policy therefore seeks to minimise harm caused to the Green Belt that might otherwise result from disproportionate additions and by resisting the loss of smaller dwellings, help maintain a choice of dwelling sizes in the Borough.

2.10 The policy reference to “original” means the dwelling as existing on 1 July 1948 even if the original dwelling has since been replaced. Where no dwelling existed on the date then “original” means the dwelling as first built. Extensions will only be allowed under the policy where the dwelling proposed to be extended remains intact on site. For the purposes of calculating floor space, gross internal measurements are used in all cases. This means measuring from the inside of external walls and includes the area of internal partitions, but excludes any stairwell area above ground floor.

2.11 Extension of domestic curtilages into the Green Belt leads to further urbanisation through construction of hardstandings, walls, sheds, etc as well as increased activity generally, and change from rural to suburban/urban character is contrary to the aims of the Green Belt.

Replacement Dwellings

2.12 Where new dwellings are permitted in the Green Belt the Council will consider removing permitted development rights for extensions and outbuildings to prevent future additions where these cumulatively would add to the impact of the development on the Green Belt. Proposals to extend or erect outbuildings to such dwellings will not be permitted.

2.13 Criteria for replacement dwellings and substantial rebuilds set out in the policy are necessary to limit the amount of urbanisation that takes place in the Green Belt through increased occupancy potential and the inevitable visual impact resulting from redevelopment.

2.14 The floorspace of replacement dwellings in the Green Belt may be up to 30% greater than the original habitable floorspace. Subsequent further extensions to a replacement dwelling will only be allowed where this additional 30% was not provided to the full at the time the replacement dwelling was built. This allowance provides the opportunity to design a building that meets the aspirations for more accommodation while ensuring the overall visual mass is no greater than that of the original dwelling. The presumption that bungalows will be replaced by bungalows should help minimise the impact on the Green Belt and assist in the provision of accessible property in the Borough.

2.15 In the interests of amenity, certain permitted development rights will, where appropriate, be removed by a condition attached to the permission. These might cover the erection of walls/fences and outbuildings. When property is rebuilt, the investment involved is very likely to spread into the renewal of boundary treatment and the provision of garages or other measures which could have a strongly urbanising effect if not controlled.

2.16 In order to retain the integrity of the criteria applied to the re-use of rural buildings, the replacement of a dwelling formed under Policy X Re-use and Residential Conversions of Rural Buildings will not be permitted.

POLICY NE14: ESTABLISHED AREAS OF DEVELOPMENT AND STRUCTURES IN THE GREEN BELT

Where new building or structures are proposed within the Green Belt, inappropriate development will not be approved except in very special circumstances.

Within established areas of frontage ribbon development included within the Green Belt listed below, planning permission for change of use to residential, new residential development on genuine infill plots, replacement of existing dwellings, or extensions to existing dwellings will be allowed subject to criteria set down in other policies in this plan being satisfied.

Relevant frontages are: 169-293 Chelmsford Road; 39-47, 51-109 Coxtie Green Road; 1-19 Bellhouse Lane; Between Coppersfield And Greenoaks, Doddinghurst Road (Parkwood); 1-13 (Excluding 2), 21-56 (Excluding 24, 26) Nags Head Lane; The Thorns/The Briars, Ongar Road; 54-88 Billericay Road; 554-664 Rayleigh Road.

New building for education and community uses which can demonstrate a requirement for a Green Belt location.

Proposals for appropriate sports and recreational facilities will be permitted as long as the proposal preserves the openness of the Green Belt as set out in the National Planning Policy Framework.

- 2.17 Within the Green Belt there are many established clusters of dwellings. The Locations listed reflect planning consents that have occurred since the 1976 review of Green Belt boundary and the policy does not seek to create exceptions to the general Green Belt protection policy.
- 2.18 National policy and guidance regards the construction of new buildings as inappropriate in Green Belt but includes limited infilling in villages, and limited affordable housing for local community needs, if proposed in policies in the Local Plan, may not be inappropriate.
- 2.19 Continuing pressure exists for ribbon “infill” development to take place between existing dwellings. If this pressure were acceded to, the character of the Green Belt within and around these areas would be irrevocably damaged over time and would result in the coalescence of villages and towns. The Council will, therefore, continue to resist strongly pressure to allow new development in those established clusters. However, there are a very few limited, well defined areas within the Green Belt where tight knit frontage ribbon development already exists which is sufficiently urban in character to allow some relaxation of Green Belt policy. Outside these defined areas, residential development will be permitted only in accordance with other policies in this Plan.

POLICY NE15: PREVIOUSLY DEVELOPED LAND IN GREEN BELT

Proposals for redevelopment of previously developed sites (brownfield) within the Green Belt will be permitted where redevelopment:

- a. contributes towards local housing needs or provides new jobs;
- b. would not have significantly greater impact on the openness of the Green Belt;
- c. improves the setting of the Green Belt through more appropriate landscaping;
- d. provides community benefits to both the new and existing local community;
- e. supplies or improves travel links to nearby existing communities, such as villages; and
- f. contributes to the Borough's sustainable development principles as set out in other policies in the Plan.

The Council will assess the proposed development based on the following:

- g. The size, scale, massing and spread of new development compared to the existing;
- h. The visual impact of the development compared to the existing;
- i. The activities / use of the new development compared to the existing; and
- j. The location of the site is sustainable and appropriate to the type of development proposed

- 2.20 Policy NE15 is in place to recognise the potential opportunity provided by previously developed sites in the Green Belt to meet local needs. Such sites will be considered appropriate for redevelopment where they contain permanent buildings and are redundant or in continuing use, subject to meeting the policy criteria.
- 2.21 Previously developed sites in Green Belt provide locations to meet local housing needs within the existing development context of the Borough. However, such sites are usually divorced from urban settlements, often remote, and do not provide for more than 10 new homes on site. For these reasons sites have not been identified and allocated for development. Although such sites do not meet the proposed spatial strategy for focusing new development in sustainable locations, they can allow for limited development

appropriate for local surroundings and as part of the purpose for including land within Green Belt.

- 2.22 Such sites can contribute to local need, particularly in the Borough's rural areas, supporting villages by contributing to local services and providing new homes to allow for improved choice. It may also be appropriate for redevelopment to provide for other types of need, such as new jobs or community uses as outlined within the National Planning Policy Framework.

POLICY NE16: SITE ALLOCATIONS IN GREEN BELT

Sites allocated to meet housing needs in Green Belt will be expected to provide significant community benefit, both for surrounding existing communities and those moving into new homes on site.

These sites will be de-allocated from Green Belt to allow development to take place and provide new defensible boundaries to protect open countryside for future generations. Site boundaries to form new Green Belt boundaries are set out on relevant site in Appendix 2.

- 2.23 Policy NE16 is in place to ensure the cost of losing some Green Belt is repaid through significant benefits to new and existing communities. This will capture the uplift in land value for local benefit. These benefits are likely to be for different needs depending on the area, but could involve new community facilities, open space for public use, play areas, and investment in existing facilities. In addition, development will need to contribute to local education and healthcare needs in partnership with relevant providers/authorities.
- 2.24 New housing development in these locations will provide for a range of needs as advised by evidence, such as the Council's Strategic Housing Market Assessment, and local housing strategy. This could be to provide new starter homes, medium and larger family homes, and smaller units, for example to allow older people to have a realistic option to downsize and free up larger homes for families. Such new homes will be fit for purpose to meet specific needs, meaning not all smaller units will be flats.
- 2.25 With this in mind, it will also be necessary to ensure the most efficient use of land is made in order to respond to the Borough's higher housing need and limited capacity. Balancing development needs with Borough character in line with strategic objectives and the spatial strategy will need to be considered.
- 2.26 Policy NE16 also sets out the principle of removing allocated Green Belt development sites from the Green Belt. This de-allocation will allow for planning applications to be considered within the context of policies within this Plan as well as national policy and guidance.

Agricultural Workers Dwellings

- 2.27 The Council will protect the Borough's rural areas from development that would adversely affect landscape character, appearance, and function, by avoiding non-essential residential development. The Council also recognises that the maintenance of land in agricultural use helps the preservation of the rural area. However, to enhance and maintain the vitality of rural communities, exceptions may be made for the conversion of existing buildings, one-for-one replacement of existing dwellings, or where it is a proven, a new dwelling to support an agricultural worker's employment requirements to live in close proximity to their place of work.

POLICY NE17: AGRICULTURAL WORKERS DWELLINGS

New Dwellings

Planning permission will only be granted for a new agricultural, horticultural, forestry worker's dwelling where:

- a. evidence has been submitted to the satisfaction of the Borough Council that there is a viable agricultural, horticultural or forestry business need for a permanent dwelling in that location;
- b. there are no suitable alternative dwellings available or could be made available in the locality to meet the needs of the agricultural holding;
- c. that there is a long-term need for agricultural worker dwellings
- d. the size and accommodation levels to be included in the proposed dwelling is commensurate with the needs of the holding; and
- e. the development is in all other respects acceptable against other relevant policies in the plan and the requirements as set out in the NPPF and NPPG.

Conditions will be attached to any permission limiting the occupancy to that required for the holding concerned or other agricultural use nearby.

Removal of Occupancy Conditions on Existing Dwellings

Planning permission will be granted for the removal of a restrictive agricultural worker occupancy concerned or other agricultural use nearby where it can be evidenced that there is no long-term need for an agricultural worker's dwelling in the locality.

- 2.28 It is recognised that in some limited circumstances there may be a need generated for new dwellings to solely serve workers engaged in agriculture, forestry and other rural activities. The new dwellings section of Policy 9.13 provides criteria whereby proposals for new agricultural, horticultural or forestry workers dwellings will be assessed.
- 2.29 In addition, changes in the scale and character of agricultural and forestry activities could affect the longer-term requirements for dwellings in the rural area where these were made subject to an agricultural horticultural or forestry worker occupancy condition at the time planning permission was granted. In such cases, it is recognised that it would fulfil no purpose to keep such dwellings vacant, or that existing occupiers should be obliged to remain in occupation simply by virtue of a planning condition that has outlived its usefulness. Nevertheless, the Council will expect applications for the removal of an occupancy condition to demonstrate convincingly there is no long-term need for an agricultural dwelling in the locality.
- 2.30 Moreover, the Council will bear in mind that such dwellings could well be used by agricultural, horticultural and forestry workers seeking accommodation within the wider surrounding area. In this regard the Council will need to be assured that the availability of a dwelling tied to an occupancy condition has been effectively marketed to likely interested parties in the area concerned, and that no real interest has been shown regarding purchase or occupation of the dwelling by the local agricultural community.
- 2.31 As part of the evidence required, the applicant will be expected to provide details of their instructions to estate agents, and the response to that advertising, that:
- e. the property has been on the market for rent or sale for at least two years and advertised continuously in that period at a price that reflects the occupancy condition. The advertising should be within both local newspapers and at least two national farmer magazines e.g. Farmer's Weekly; and
 - f. the property has been offered both for sale and to rent on the same basis as above to all farmers and horticulturists in the locality (i.e. having holdings within a 3.2km (two mile) radius of the dwelling).
- 2.32 In addition, the policy will be applied to applications for the removal of occupancy conditions from dwellings associated with stables or other rural dwellings which are subject to occupancy conditions.

Re-use and Residential Conversion of Rural Buildings

- 2.33 Notwithstanding prior approval permitted development rights for the change of use of agricultural buildings of 500 square metres or less, to Class R, the re-use and adaptation of existing rural buildings can play an important role in meeting the needs of rural areas for employment, tourism, leisure and/ or community uses. In addition, the re-use of rural buildings for commercial development can support the rural economy by promoting the sustainable growth and expansion of businesses through conversion of existing buildings and diversification of agricultural and other land-based rural businesses. Tourism could be a vital and sustainable source of business for the rural economy and provides employment for local people and therefore contributing to the objective of sustaining vital rural communities.

Some buildings could be suitable for businesses connected with tourism, while community uses can make a valuable contribution to local communities in appropriate locations.

POLICY NE18: RE-USE AND RESIDENTIAL CONVERSION OF RURAL BUILDINGS

The Council will support the re-use, conversion or adaptation of rural buildings for other employment generating uses, tourism, leisure or community or residential use provided the development proposal meets all the following criteria:

- a. it does not have a greater impact on the openness of the Green Belt and the purpose of including land within the Green Belt than the original or current lawful use;
- b. the new use should not require elements which might conflict with the openness and function of the Green Belt;
- c. the applicant can demonstrate that the building is of permanent and substantial construction;
- d. the conversion of the building would not result in a major or complete reconstruction; and
- e. the proposed re-use should not have an unacceptable detrimental impact on the fabric and character of the building due to unsympathetic changes to or the introduction of features such as windows, door openings and chimneys.

Notwithstanding prior approval permitted development rights for the change of use of agricultural buildings of 500 sqm or less, to Class R, the re-use and adaptation of existing rural buildings can play an important role in meeting the needs of rural areas for employment, tourism, leisure and/or community uses. In addition, the re-use of rural buildings for commercial development can support the rural economy by promoting the sustainable growth and expansion of businesses through conversion of existing buildings and diversification of agricultural and other land-based rural businesses. Tourism could be a vital and sustainable source of business for the rural economy and provides employment for local people and therefore contributing to the objective of sustaining vital rural communities. Some buildings could be suitable for businesses connected with tourism, while community uses can make a valuable contribution to local communities in appropriate locations.

In the case of traditional rural buildings, the proposed use must be compatible with the historic character and significance, and structural integrity of the building. A historic building assessment of the structures may be required as part of the

planning application with the potential for a full historic record to be completed as a condition of the application prior to conversion.

Where appropriate, conditions will be imposed removing permitted development rights to extend the property, alter the external appearance, construct buildings or structures (including walls/fences) within the curtilage, and change the use.

Permission will not be granted for the re-use of an agricultural building erected under Class A of Part 6 of Schedule 2 of the General Permitted Development Order as amended within 10 years of its substantial completion.

- 2.34 Notwithstanding prior approval (under the provisions of paragraph W) permitted development rights for the change of use of agricultural buildings (under the Town and Country Planning (General Permitted Development) (England) Order 2015, of 500sqm or less, to Class R. Class R. This does not apply to a Listed building or a scheduled monument.
- 2.35 Where a solely used agricultural building prior to 03/07/2012; smaller than 500sqm; will have prior approval for a flexible use as Class A1 (shops), A2 (financial), A3 restaurants, café, B1 (business), B8 (storage/distribution), C1 (hotels) or D2 (assembly and leisure). NB between 150sqm and 500sqm, prior approval will need transport and highways impact, noise impact, contamination risk, flood risk information to be submitted.
- 2.36 The Council is committed to supporting a prosperous rural economy and this approach is in line with national policy. This policy should be read in conjunction with Policy X Supporting the Rural Economy.
- 2.37 In the case of traditional rural buildings, the proposed use must secure its historic fabric and integrity and in the case of Listed Buildings will need to comply with Policy xxx. It is essential to ensure that a residentially converted rural building does not have the appearance of a new dwelling or set a precedent for new residential development in the Green Belt. The building must be capable of conversion without the creation of a residential curtilage having a harmful effect on the building and the surrounding countryside due to the unacceptable intrusiveness of increased activity and domestic additions such as garaging, sheds, clothes lines, play equipment, walls and fences, patios and hardstandings.
- 2.38 Residential re-use is a concern due to the large number of properties involved, loss of rural business premises for which there may be a need in future but which may be uneconomic or otherwise hard to replace, the impact on the rural character of the Green Belt and the need to facilitate new housing within or well connected to existing settlements. The Council will generally apply a presumption in favour of employment generating uses. Residential conversions will only be permitted where every reasonable effort has been made to secure a suitable business use, or the residential use is a subordinate part of a business re-use, or the use is required for an agricultural or forestry worker. Residential conversions may be

appropriate in certain circumstances including where they are adjacent to, or within, existing groups of buildings. A financial contribution will be sought by the Council towards the provision of affordable housing elsewhere within the respective Parish.

In the case of traditional rural buildings, the proposed use must secure its historic fabric and integrity and in the case of Listed Buildings will need to comply with Policy 9.5. It is essential to ensure that a residentially converted rural building does not have the appearance of a new dwelling or set a precedent for new residential development in the Green Belt. The building must be capable of conversion without the creation of a residential curtilage having a harmful effect on the building and the surrounding countryside due to the unacceptable intrusiveness of increased activity and domestic additions such as garaging, sheds, clothes lines, play equipment, walls and fences, patios and hardstanding.



1. Site Allocations

- 1.1 Site allocations listed in this chapter reflect spatial strategy and strategic objectives
- 1.2 Each policy follows a similar format, providing the basis for how development is expected to come forward and key considerations. The following sub-headings are included for each site:
 - a) **Amount and type of development:** Sets out an approximate number of new homes considered appropriate for a site according to certain characteristics, such as surrounding density and character, and the amount of land considered to be developable (i.e. not including areas that will not be developed within a site like gardens or roads). The number of new homes on a site is indicative and in each case the Council will consider the need to maximise development according to policies within the Plan. For employment allocation policies, figures stated for hectares of employment land are more accurate and should be adhered to as a starting point.
 - b) **Development principles:** Sets out the wider principles of development on site that should be considered further through the decision-making process.
 - c) **Infrastructure requirements:** Sets out the specific requirements for each site that are expected to be delivered alongside development. These are not exhaustive, and any planning application should look to consider wider infrastructure needs informed by evidence, such as the Council's Infrastructure Delivery Plan.
- 1.3 Where reference is made to the type and size and new homes, the local character should also be considered.
- 1.4 Affordable housing should be provided in line with Policy BE22, as well as considerations for specialist housing, Policy BE21.

- 1.5 Sites for new housing and employment are split according to whether they are strategic or not.
- 1.6 The trajectory is not fixed, it gives an indication to how we think things will come forward within a phased approach and taking account of the ability to build in infrastructure. However, proposals should show whether development can be delivered sooner. The Council is committed to delivering new homes swiftly, in line with the Government's aims.
- 1.7 Where sites with more than one landownership are allocated, policies set out the need for joint working. However, this does not preclude multiple planning applications being submitted, these applications should evidence consideration of other sites and working together on proposals. This is reflected in individual site allocation policies.
- 1.8 This chapter is split according to strategic sites, non-strategic sites for both housing-led and employment development. Sites are listed as follows:

Strategic Housing Allocations:

- a) Dunton Hills Garden Village Strategic Allocation
- b) Land at West Horndon Industrial Estate
- c) Land North of Shenfield
- d) Ford Headquarters and Council Depot, Warley

Housing Allocations:

- a) Land at Nags Head Lane, Brentwood
- b) Land at Honeypot Lane, Brentwood
- c) Sow and Grow Nursery
- d) Land at Mascalls Lane
- e) Land at Warley Hill
- f) Brentwood Railway Station Car Park
- g) Westbury Road Car Park
- h) Land at Hunter House
- i) Chatham Way Car Park
- j) William Hunter Way Car Park
- k) Wates Way Industrial Estate
- l) Land off Doddinghurst Road, Brentwood

- m) Land off Crescent Drive, Shenfield
- n) Land at Priests Lane, Shenfield
- o) The Eagle and Child Public House, Shenfield
- p) Land South of Ingatestone
- q) Land Adjacent to The A12, Ingatestone
- r) Brizes Corner Field
- s) Land off Stocks Lane
- t) Land at Hook End
- u) Land North of Woollard Way, Blackmore
- v) Land North of Orchard Piece, Blackmore

Strategic Employment Allocations:

- a) Brentwood Enterprise Park

Employment Allocations:

- a) Childerditch Industrial Estate
- b) Codham Hall Farm
- c) Land at East Horndon Hall
- d) Land Adjacent to A12 and Slip Road, Ingatestone

Dunton Hills Garden Village

Background

- 1.9 The National Planning Policy Framework (NPPF 2018) Section 5 (Delivering a Sufficient Supply of Homes) sets out how the plan-making process should positively plan for identifying appropriate land for homes. It goes further to states that a significant step towards meeting the housing shortage is through larger scale development, such as new settlements or significant extensions to existing villages and towns.

- 1.10 The Council's strategy for growth has considered all possible brownfield sites and previously developed underutilised land within the main urban area and this has formed the Central Brentwood Growth Corridor. However, with 89% of the borough falling within the Metropolitan Green Belt of London, it has meant that the Council has had to make some difficult decisions about the most sustainable areas where its housing needs could be delivered. This has meant the Council has undergone a review of possible locations to determine the considered balance between minimising the impact on the Green Belt and ensuring chosen locations are sustainable – that is the most accessible and least harmful to key environmental designations. The assessment concluded, as detailed in the Sustainability Appraisal, that the south Brentwood locations were deemed to be the most suitable locations; this has determined the South Brentwood Growth Corridor strategy.
- 1.11 Dunton Hills was selected as a Strategic Allocation (Ref R28) to meet the majority of Brentwood's housing need, within the Plan Period and beyond. Given its proximity to the A127, to West Horndon railway station and to nearby employment areas, development at Dunton Hills provides a unique opportunity to deliver a sustainable new settlement. Its size means supporting infrastructure can also be delivered, thereby relieving the impact of on existing facilities that are at capacity. Providing a significant amount of development will help reduce pressure to alter the Green Belt boundaries again in the next Plan Period.
- 1.12 In January 2017 Dunton Hills was announced as one of 14 proposed Garden Villages across England, receiving funding to take plans forward and help timely delivery of the development. The site at Dunton Hills offers a unique opportunity to deliver a new settlement that meets both Garden Community principles as well as Brentwood's Growth Strategy.
- 1.13 The site is approximately 259.2 ha and is bounded by A128 (Tillbury Road / Brentwood Road) on the west; the A127 (Southend Arterial Road) on its northern edge; the London, Tilbury & Southend C2C Railway on its southern edge; and the borough boundary on its eastern edge. The B148 (West Mayne) is the eastern road beyond the borough boundary separating the site from the built-up area of Basildon. Its location is ideally placed to align with the principles of Garden Communities. It is connected enough to make it a sustainable location; at the same time physically contained and surrounded by countryside to not only align to Brentwood's Borough of Villages character, but also continue to maintain characteristics of Green Belt openness.

A Spatial Vision for Dunton Hills

Policy Framework for Dunton Hills Garden Village

- 1.14 Dunton Hills Garden Village (DHGV) will be holistically planned, self-sustaining and characterful and align to the principles for Garden Communities are set out in two key publications: the Garden Communities Guidance¹ by the TPCA (2017); and the Government Prospectus on Garden Communities (MHCLG 2018)². While the principles listed in these

¹ Understanding Garden Villages. An Introductory Guide. TPCA (2018).
<https://www.tcpa.org.uk/Handlers/Download.ashx?IDMF=3507c991-fde2-4218-8920-641416f521b5>

² MHCLG 2018. Garden Communities Prospectus. [online]
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/734145/Garden_Communities_Prospectus.pdf

two publications differ slightly, their intention is the same. Garden Communities are *“holistically planned new settlements that enhance the natural environment and offer high-quality affordable housing and locally accessible work in beautiful, healthy and sociable communities”* (TCPA, 2017). MHCLG further states that they are clear expectations to ensure these new developments achieve and maintain the necessary quality so that they become *“vibrant, mixed-use, communities where people can live, work, and play for generations to come – communities which view themselves as the conservation areas of the future”*.

- 1.15 The principles should be seen as an indivisible and interlocking framework for delivery and can be organised into principles which define the expected qualities of the development; those which relate to the delivery process; and those necessary to ensure sustainable management of the garden village into the future. Dunton Hills should form a place where people will want to live, where they feel healthy and happy and which provides opportunities to prosper and flourish. Dunton Hills must not be the type of dormitory ‘non-place’ that has so often become the norm for such developments in the recent past.
- 1.16 The policy framework is set out as three interrelated policy domains:
- i. **The Strategic Allocation** – describing the overarching site requirements and land use parameters;
 - ii. **The Spatial Design** – prescribing the physical components needed to deliver the necessary quality for a healthy, liveable and sustainable village; and
 - iii. **The Delivery Approach and Legacy Management** – setting out the expectations for how the delivery of the scheme should be approached to embed an ethos of co-design and participation, timely and good governance in delivery and an embedded legacy management of the village assets.
- 1.17 The Council requires development proposals to demonstrate how they will deliver the ambitions set out in the vision statement and the strategic objectives. These aims align with the garden communities principles which can be categorised as those which help deliver a well designed place, those that ensure a robust delivery process and those which embed good governance for the long-term management of the site.

DHGV Strategic Aims and Objectives

- 1.18 The vision for Dunton Hills can be summarised as three overarching aims, supported by a number of sub-objectives that together provide the link between the vision and the development strategy (illustrated in Figure 8.1). These will form the fundamental development principles which should help shape and inform the development of a masterplan, and in turn guide decision making against which development/masterplanning proposals will be assessed:
- a. **Strategic Aim DH01:** To create a distinctive and well-designed new settlement at Dunton Hills that responds to its spatial context, and incorporates all the necessary components to achieve a healthy, liveable and self-sustaining Garden Village.

- i. **DH01a: DISTINCTIVE CHARACTER & HARMONIC DESIGN.** Development that delivers homes and neighbourhoods that have their own unique character, with architectural design and materials that are durable and human-scale in nature; where elements are spatially organised to create safe, positive experiences and interactions.
 - ii. **DH01b: LANDSCAPE-LED.** Development that takes a natural landscape-led approach to urban design, to deliver a healthy, walkable and climatically adapted public realm, amongst the backdrop views of the Essex countryside.
 - iii. **DH01c: EMBEDDING HERITAGE ASSETS.** Development should take every opportunity to embed the heritage assets of the site.
 - iv. **DH01d: SOCIAL PLACE.** Development that creates active, vibrant village centres with the necessary community infrastructure, all connected and interspersed by nodes of social-cultural activity and recreational opportunities that foster social wellbeing and healthy communities.
 - v. **DH01e: SMART INFRASTRUCTURE.** Development that delivers smart, sustainable and resilient infrastructure to future-proof investment.
 - vi. **DH01f: SUSTAINABLE TRAVEL.** Development should mitigate for any road impacts as well as create integrated, sustainable and clean travel solutions, made possible by a well-networked, safe streetscape environment that encourages walking and cycling to become the default travel option for short distances and everyday conveniences.
 - vii. **DH01g: HOMES THAT PROVIDE DESIRABLE DESIGN, CHOICE AND ARE AFFORDABLE.** Development should deliver homes people will be proud to live in, that are universal, adaptable and sustainable in design using quality durable materials and that are affordable and provide a range of choice in terms of size and tenure.
- b. **Strategic Aim DH02:** To create a place that promotes enterprise, innovation and learning as part of the delivery process, but also as an embedded culture for the future village.
- i. **DH02a: HEALTHY & PRODUCTIVE WORK PLACES.** Deliver a variety of workplaces, including incubator/affordable spaces, that are designed to be places conducive to health and productivity and flexible enough to respond to economic drivers and emergence of new sectors of employment and changing work patterns.
 - ii. **DH02b: ALL THROUGH LEARNING.** Deliver an exemplar all through school with a design that fosters a learning environment for all types of learners and through life, from nursery through to adult learning opportunities.
 - iii. **DH02c: INNOVATION & ENTERPRISE.** Creates a construction process that quick-starts a programme of innovation, learning and enterprise.

- c. **Strategic Aim DH03:** To create a legacy of co-design, co-delivery and eventual vibrant and cohesive community spirit and stewardship.
 - i. **DH03a: GOOD GOVERNANCE.** Development that embeds the right governance structures and covenants to maintain an ongoing, proactive stewardship of communal and public interfacing spaces.
 - ii. **DH03b: PHASING PLAN.** To develop a rigorous development phasing plan to ensure the development delivers the appropriate infrastructure at the right time enabling an early sense of community from the start.

Development Principles

- 1.19 Underscoring these strategic aims are four underlying development principles that should be embedded into the different stages of the scheme, from design, through to construction methods and eventual legacy management:
- i. **Design and Build with Nature.** Development must take into account the site's natural assets and make positive use of the landscape's natural systems to ensure the long-term health, resilience and sustainability of the new settlement; this approach will minimise Green Belt, Landscape Capacity and the environmental impacts allowing it to blend naturally into its surroundings. This approach should not be limited to just green infrastructure considerations, but also reflected through into the thinking behind choice of building materials and design details (aesthetics and building function). The development approach should consider the learning and knowledge of ecosystem services, natural capital and benefits of GBI.
 - ii. **Smart and Sustainable.** Development must achieve resilient and high performing infrastructure to ensure resource efficiencies and sustainable use. Design and construction choices must be forward looking, demonstrating how the development will be durable, long-lasting, optimised, self-sufficient and smart to enable a thriving settlement to establish that provides the best services and can support economic growth, productivity and wellbeing. Modern infrastructure should consider the latest knowledge and innovation of emerging technologies.
 - iii. **Adaptable.** Development should be capable of being flexible to accommodate the likely progression over a 20-year build-out period. Design choices should be robust, resilient and adaptable to changing patterns relation to personal preferences, behaviours, economics, and climate change.
 - iv. **Healthy.** Development must strive towards creating an environment that is conducive to human health so that it encourages healthy behaviours and active living as well as ensure it is delivering a liveable settlement that addresses the wider determinants of health. The principles of health are imperative and cross-cutting and should form the basis against which proposals are continuously evaluated and monitored.



Figure 8.1: Strategic Aims And Objectives For Dunton Hills Garden Village

POLICY SA28 (I): DUNTON HILLS GARDEN VILLAGE STRATEGIC ALLOCATION

In accordance with Policy SP04, land at Dunton Hills approximately 259.2 ha (east of the A128, south of the A127 and north of the C2C railway line) is allocated for residential-led development to deliver Dunton Hills Garden Village.

The scheme will deliver a mix of uses to comprise: at least 2,500 homes and up to around 4,000, together with the necessary community, utility, transport and Green-Blue infrastructure to support a self-sustaining, thriving and healthy neighbourhood.

Successful development of the site will require:

- a. Garden Community principles to be fully embedded demonstrating how these have informed the detailed masterplan;
- b. Proposals to creatively address the key site constraints and sensitively respond to the unique qualities and opportunities afforded by the historic landscape and environmental setting to deliver a distinctive and well-designed garden village in line with the ambitious vision and strategic aims and objectives for Dunton Hills; and
- c. A holistic and comprehensive masterplan to be established, co-designed with the relevant stakeholders, along with the necessary and proportionate design guide to frame and guide the consistent quality and delivery across the site by contractors over the delivery period.

Permission for mixed-use development will be granted subject to the parameters and components specified below:

- d. Delivery of at least 2,500 dwellings during the plan period, including specialist housing in line with Policy XX; affordable housing in line with Policy XX; a balanced variety of housing typologies and tenure in line with Policy B19; provision of self-build plots in line with Policy XX;
- e. The provision of a serviced site for Gypsies and Travellers, to accommodate 6 pitches, in line with Policy B25;
- f. A proportionate amount of employment space to accommodate a creative range of employment uses suitable for a vibrant village centre, including A1-A5; appropriate B1;

- g. Educational buildings and linked playfields / playgrounds appropriate to the scale of development;
- h. Community and health infrastructure proportional to the scale of development and in line with the design principles set out in Policy XX;
- i. Green-Blue Infrastructure to be a minimum of 50% of the total land area;
- j. Retail provision to form a vibrant village core in the form of a 'district' level service centre in line with Policy xx, with additional 'local' level service centre(s), as appropriate to the scale and phasing of the development.
- k. The necessary transport routes, connections and facilities to mitigate any road transport impacts, as detailed in Policy BE13;
- l. Strategically designed and appropriately phased infrastructure, employing the most up to date technologies to ensure a smart, sustainable and a resilient basis for drainage and flood management in line with Policy SUDS BE08; Water management including Potable/ non-potable and opportunities for grey water harvesting; efficient and cost saving energy networks in line with Policy BE03; superfast broadband in line with Policy BE10.

POLICY SA28 (II): SPATIAL DESIGN OF DUNTON HILLS GARDEN VILLAGE

The proposed scheme must deliver all the necessary supporting spatial components and infrastructure to address the specific site constraints, potential impacts and harness the site opportunities as set out by the strategic aims and objectives. Development of the masterplan and supporting design guide for the scheme should demonstrate how this is to be achieved. Consent for development will be permitted if the proposals for the scheme can demonstrate how they address the following provisions and principles:

Distinctive Character, Harmonic Design, Compact Density

- a. How the unique character of Dunton Hill is informed by the distinct spatial and heritage qualities informed by the context of its landscape and its cultural heritage origins.
- b. The design of sub-neighbourhoods and streets, that may take on their own unique character, should be harmoniously integrated to form an

overall Dunton Hills Garden Village identity - through the coherent and complementary use of materials and design of the public realm in line with Policy XX.

- c. A density plan should be submitted that demonstrate how an appropriate range of densities will be achieved across the site to ensure a compact, highly networked, walkable and fine-grained environment with a highly connected street-based layout.

Ecological Networks, Biodiversity Net Gain, Coherent Green Infrastructure and Public Realm

- d. A green infrastructure plan should be submitted that demonstrates how the design of green infrastructure will be an integral part of the masterplan layout to achieve multi-functional green infrastructure. The GBI plan should be informed by a comprehensive wildlife and habitat survey and heritage and landscape character assessment. The GBI Plan should consider the following principles:
 - e. achieves a highly connected and biodiverse ecological network of varied habitats in line with Policy XX
 - f. incorporates existing areas of habitats of value and natural features such as trees, tree lines and hedges, hedgerows, ponds, and lakes, among others in line with Policy XX.
 - g. a variety of activity nodes and treatments for recreation and leisure opportunities, including public natural parkland, pockets of village greens, local nature reserve, allotment sites, sports pitches and fields;
 - h. a streetscape that continues the green infrastructure through the residential areas and village centre with creative landscape schemes including tree lined streets, grass verges, rain gardens;
 - i. appropriate amount and depth of green infrastructure screening should be incorporated to mitigate noise and air pollution adjacent to A127, A128, rail tracks;
 - j. Settlement orientations, structure and morphology to take into account the landscape views; aspects should take opportunities for passive heating and cooling;
 - k. interface between the green space and the built structures should ensure passive surveillance, with coherent and gradual transitions and clear boundaries and vistas; and
 - l. a green infrastructure buffer achieved through creative natural ecological habitat design on the eastern boundary with Basildon to achieve visual

separation, and help to significantly improve the landscaped and habitat value thus reinforcing the beneficial purpose and use of the green belt in that zone

Sport, Recreational, Leisure Public Open Space

The provision for green space opportunities for recreation and sport must be an integral part of the green infrastructure plan; it should incorporate as a minimum the following provision.

- m. An appropriate amount of sports and recreation provision to provide a variety of pitch sizes and facilities in line with Policy xxx
- n. The GI following Nightingale road should incorporate a heritage trail with signage and history information boards.
- o. Pathways through the GI network will be made of permeable material and follow a coherent treatment throughout the village. The pathways will all connect into a circular walk, with interconnected shortcut routes and be signposted offering directions to key destination points.
- p. Appropriate number of play spaces shall be incorporated into the green infrastructure plan, with an emphasis on natural play options.

Views

- q. Key views shall be safeguarded and maintained and become distinctive features on the development. This should be informed by a key views assessment and proposals should demonstrate how the urban layout will incorporate safeguarded views.
- r. Streets and avenues should orientated towards the key views to maintain a landscape corridor out onto the neighbouring open landscapes and to the wider key distant views such as London skyline and Langdon Hills and other identified.
- s. Visual separation should be achieved on the eastern boundary of the site.

Embedding Heritage Assets

- t. Heritage features should be enhanced and incorporated into the development scheme in line with Policy BE42 to provide attractive and distinctive features that make a positive contribution to the character of the local area and an attractive setting for development. Incorporation of these elements should be informed by a Heritage Assessment. Development should aim to retain and integrate remaining and remnant historic features, having key consideration for the following provisions:

- u. Protection and enhancement of existing public rights of way
- v. Incorporate the historic core and listed buildings of the farmstead as part of the DHGV Village Centre
- w. Protect listed buildings during the construction phase and during any retrofitting to make the structures fit for purpose for new uses.

Active Travel

- x. Development should incorporate sustainable transport measures in line with Policy BE13.
- y. 'Active by Design' measures to promote healthy travel options
- z. A dedicated segregated cycle network should be incorporated into the streetscape, making cycling safe to use by all ages and help discourage car use for short internal trips. Where possible this should be integrated with the 'off-street' cycle routes through out green infrastructure networks to ensure safe routes to schools and other facilities.

Transport Impact Mitigations

- aa. The development will mitigate any predicted road impacts. This should be informed by the latest Transport Assessment, which should be monitored and re-evaluated throughout the lifespan of the build-out, to account for changes in transport technology and wider strategic transport network changes. As a minimum, mitigations will include:
 - bb. Junction improvements
 - cc. A dedicated bus route should be funded by the development to make it easy to access West Horndon station as well as nearby employment locations and key social infrastructure, in alignment with the phasing of such services onsite
 - dd. The necessary road West Horndon station improvements to accommodate for a bus terminus and turnaround, as well as infrastructure for bike storage.
 - ee. Enhanced bus route taking pupils to nearby secondary school in the early phases of the work

Gateways

- ff. Any necessary traffic calming measures at key junctions leading off the arterial roads and entering into the Garden Village, creating a sense of arrival.

Clean Vehicle Alternatives

- gg. Proposals should not allow for the dominance of cars and car travel. The scheme should promote clean vehicle alternatives in line with Policy XX, incorporating car sharing clubs and electric vehicle only development; time limiting car parking in the central locations; Clean air zones around the main schools and community buildings exposed to vulnerable people.

Street Hierarchy

- hh. The road hierarchy shall be designed to promote a walkable neighbourhood, yet accommodate the vehicular accessibility requirements of for servicing, refuse, emergency access and bus routing;
- ii. The development has be a 20 mile an hour zone ensuring the safety of the public realm.
- jj. Main roads into the site from the A127 will be designed to slow down the traffic, making it clear that it is now a neighbourhood zone. Boulevard approach to Enhancement of public footpaths, public rights of way routes (such as Nightingale Lane) and any bridleways through green infrastructure, to coherently connect back to the residential pedestrian links.
- kk. Streetscape design should incorporate grass medians and verges and trees should be used as a tactic to slow down the traffic and give the road an instant village feel.

Village Centre(s)

- ll. Proposals for the placement and design of the village centre(s) should be informed by an appropriate retail hierarchy study that assesses the type of village centre needs, based on the supply and demand of the surround area.
- mm. The location of the village centre should incorporate the historic farmstead, in the centre of the site, creating a heritage legacy for the village centre.
- nn. The village centre(s) should be c designed to be mixed-use, with a range of commercial and community uses along ground floor frontages and a mix of uses on upper floors including residential and small scale employment.
- oo. The village centres should provide localised opportunities for employment.

Employment Spaces & Learning Opportunities

- pp. The village centres should incorporate a variety of work spaces, including incubator/affordable spaces that are complementary to district level service centre uses and are flexible in design to respond to changing economic drivers and emergence of new sectors of employment and changing work patterns.
- qq. Delivery of employment spaces should demonstrate a healthy-by-design approach, informed by leading industry guidance on the design of productive workplaces.

Social Infrastructure

- rr. Proposals for the design of social infrastructure such as schools, health facilities and community spaces must demonstrate how they have incorporated key learning points and knowledge from the interior design sectors to deliver environments conducive to human health and social wellbeing.
- ss. Design should be informed by the latest knowledge and principles of human-centred design; biophilic design; and sustainable healthcare.
- tt. Design proposals which demonstrate the adoption of relevant industry standards, such as BREAM or WELL standard, will be supported.
- uu. Facilities should also be designed to be flexible to allow for wider community uses; for example, the use of the school in out of school hours, such as adult learning classes, community activities or the use of the school playing fields for community sports.

Delivery Approach and Legacy Management

POLICY SA28 (III): SCHEME DELIVERY AND MANAGEMENT

The design, development and phased delivery of DHGV must accord with all the following principles:

The public sector working pro-actively and collaboratively with the private sector to:

- a. secure high-quality of place-making in accordance with Policy SA R28(ii);
- b. ensure the timely delivery of on-site and off-site infrastructure required to address the impact of these new communities; and
- c. provide and fund a mechanism for future stewardship, management, maintenance and renewal of community infrastructure and assets;
- d. Community and stakeholders involvement in the design and delivery from the outset and the delivery of a long-term community engagement strategy;
- e. Partnership working with key industry and public sector stakeholders is encouraged, especially to inform the evolution of the masterplan and determine the complex infrastructure requirements, in line with country level requirements.
- f. Planning applications must include a supporting statement setting out a sustainable long-term governance and stewardship arrangement for the community assets including Green Infrastructure, the public realm and community and other relevant facilities to be funded by the developer. Considerations should be given to devices such as legal covenants in deeds to establish responsibilities over certain matters of care, such as front gardens, communal gardens, public realm.
- g. A Strategic Masterplan must be developed along with a design guide to guide a coherent development across the allocation site, and illustrate key connections with surrounding GI and employment sites; this will be in line with Policy XXX.
- h. Implement a Jobs Brokerage Scheme to ensure that the many new jobs created on site go to local people

A suitable management body will need to be established to manage the assets of the DHGV over the long-term. The most suitable approach should emerge through the design and delivery process.

- i. The production and implementation of a development and phasing plan that demonstrates how delivery will be phased, managed, accelerated and governed and how the legacy assets will be handed over for ongoing legacy operations and maintenance;

Distinctive Character & Harmonic Design

DISTINCTIVENESS

- 1.20 To achieve this aim requires a thorough understanding of the spatial context (landscape, heritage, habitat, constraints). Seven sub-objectives each define the principles for how the physical components of the garden village should be designed and integrated, each responding to a site appraisal and local aspirations. The following sub-objectives encapsulate the key spatial interrelated opportunities that need embedding into the masterplanning, design and delivery of the Garden Village.
- 1.21 Historic garden villages placed a huge emphasis on the use of high-quality, craftsmanship and often local materials. This has resulted in homes and communities that have remained desirable and unique to their geographic context. How a place looks and feels tends to be the focus of objections to new communities establishing and therefore it is important to get this right. We want Dunton Hills to become a community which sees itself as a 'conservation area of the future', not a dormitory 'non-place' that has become the norm for such developments in the recent past.
- 1.22 Strategic Objective DH01 (distinctive character & harmonic design) aligns to Garden Community principles which highlights qualities such as 'clear local identity', 'well designed', 'beautiful and imaginatively designed homes with gardens'. Dunton Hills Garden Village should achieve a distinctive recognisable character by respecting the traditions of village life while ensuring 21st century conveniences, technologies and design.
- 1.23 Principles of design harmony (balance, symmetry, scale, proportions, etc), 'building with nature' and 'healthy-by-design' should also be the starting point and embedded in the process of design to achieve a healthy, liveable, resilient and a self-sustaining new settlement. TCPA guidance on Garden Communities provides extensive learning points to guide the future creation of garden communities.
- 1.24 The design of the neighbourhood must also consider how the place will feel to walk through at night as well, given the probable openness of its surroundings; night-time lighting will need to be designed in a way that provides the necessary levels of illumination, but not be detrimental to nocturnal wildlife.
- 1.25 To achieve this at Dunton Hills requires a thorough understanding of the spatial context (landscape, heritage, habitat, constraints) and local aspirations. The site's masterplan should creatively respond to the site's context. Achieving distinctiveness should be inspired by the historic evolution of Dunton Hills: the landscape character; heritage assets and cultural heritage references, such as local names, features, and their significance, in line with Strategic Objective DH01c (embedding heritage assets).
- 1.26 Design must also be informed by local aspirations, by inviting active participation of local community and stakeholders, as part of a coordinated and informed approach to masterplanning.

DENSITY

- 1.27 The layout of the development should achieve a fine-grained, permeable and connected environment that makes the best, most efficient use of land. A new compact village

vernacular should be defined that respects and maintains its feel as a village, but without the predominance of sprawling detached properties that do not make the best sustainable use of land and can often leave a place feeling exposed and incoherent. Development proposals should consider a density hierarchy that increase towards the local village centres and around public open spaces, to achieve a sense of enclosure and safety and natural surveillance overlooking exposed sites.

HOMES

- 1.28 Delivering great, affordable homes will be key to making the village distinctive. At least 2500 homes are planned within the Plan Period Dunton Hills, with an indicative capacity of 4000, subject to further feasibility and assessment of impact. Homes, like the public realm, should be well designed and provide a range of choice (dwelling sizes, tenure) to encourage a balanced community from all stages of life to form.
- 1.29 While houses should be designed to be distinctive, they must not be ‘over designed’, meaning that the traditional and much loved elements of a house get distorted or become non-functional. At the same time development should avoid making Dunton Hills feel like dormitory non-place of sprawling, detached, cookie-cut houses that do not evoke any character or sense of pride, where traditional elements may have been included, but in a manner where the craftsmanship has neglected the detail to the extent that has rendered them undesirable, cheap-looking, slapdash and so often criticised of being ‘pastiche’ (but mean more likely a parody whereby the imitation falls short of the real thing).
- 1.30 Strategic Objective DH01g (homes that provide desirable design, choice and are affordable) seeks to achieve homes people will be proud to live in, that are universal, adaptable and sustainable in design using quality durable materials and that are affordable and provide a range of choice in terms of size and tenure.
- 1.31 The timely delivery of new homes will also be key to the early establishment and success of the new village. Proposals should demonstrate innovative ways to accelerate the delivery without compromising the quality, durability, longevity and overall sustainability of the built fabric.
- 1.32 A substantial fraction of the housing delivered on site should be genuinely affordable, and development proposals should think creatively about solutions to make this happen, learning from national and international case studies.

Landscape-Led - GREEN INFRASTRUCTURE

- 1.33 Strategic Objective DH01b responds to the Garden Communities principles that ‘generous, accessible green space’ ‘development that enhances the natural environment’, ‘comprehensive green infrastructure network’ and ‘deliver environmental gains and enhancements to natural capital. The landscape setting of Dunton Hills provides a unique backdrop to ensure green infrastructure (as well as the harmonious horizon views afforded by the topography of the site) should be the starting point for the design response. A ‘design and build with nature’ approach goes some way to deliver climate resilient infrastructure to counteract the impact of climate change and ensure a natural capital approach to sustainable development. Green spaces should be highly accessible and incorporate

universal design measures, and include suitable pathways for walkers, cyclist, and horse riders to ramble through.

- 1.34 At Dunton Hills this will be achieved through a landscape-led development to deliver a generous amount of green infrastructure for multi-functional recreational use that encourages a healthy, walkable and climatically adapted public realm. Design proposals should present a coherent green-blue infrastructure plan that enhances and connects the wider Essex Countryside landscape. As well as its resilient infrastructure role, green infrastructure will also deliver a natural residential environment, that is now well documented to provide healthier environments that are conducive to people's wellbeing – not only through the harmonious sensory experience it creates, but also by providing opportunities to be more active, through walking and other outdoor leisure and learning pursuits.
- 1.35 The proposals must also demonstrate how they are taking advantage of the wider ecosystem services afforded by Green Infrastructure, to deliver climatically resilient infrastructure to achieve resource efficiency. Consideration should be given to integrating rain garden SuDS into both the streetscape and green/blue space within development areas. These may then link into the landscape public realm depending on the detailed topography of the area and ultimately into retention and attenuation ponds.
- 1.36 The green infrastructure plan will account for the creation of varied recreational experiences to appeal to a varied range of users with different interests and age-related preferences. Creative incorporation of productive landscapes, providing opportunities of community and informal growing opportunity, to also be used as a learning and teaching resource by the local schools.

BIODIVERSITY NET-GAIN AND ECOLOGICAL CONNECTIVITY

- 1.37 The existing significant Green Infrastructure features such as the woodland, fenland and ponds should be retained and/or enhanced and connected to achieve a contiguous green corridor throughout the Garden Village, achieving biodiversity net-gain across the site. As well as establishing an integrated ecological network within the site, the development should demonstrate its connectivity to wider local wildlife destinations (such as Thorndon Country Park). The site's existing habitats – such as the lakes and ponds - should inspire the basis for the design of parks and village greens as key destinations and nodes of social-cultural activity within the village, in line with DH01d (social place). Connecting these natural heritage assets gives structure to the site and naturally divides it into potentially varying character areas for development.
- 1.38 Proposals will need to retain and weave through priority habitats such as significant areas of existing woodland habitat and where relevant reinstate degraded fenland and demonstrate the measures taken to protect mature trees, and where possible, enhance hedgerows, ponds and other environmental features of note, which contribute to the character and biodiversity. The river course and ponds should be retained to minimise impact on the wildlife they support as well as contributing to sustainable drainage across the site.
- 1.39 Proposals should also consider their ecological connectivity between existing and surrounding 'living landscape' habitats beyond the development boundary, for example Eastlands Spring connecting Thorndon Country Park to Langdon Hills Country Park.

- 1.40 The agricultural heritage of the site also provides a distinctive cultural context to inspire Green Infrastructure with a focus on food production and foraging as alternatives to grassed verges; while grass verges are well-loved in garden communities, alternatives or additional elements, such as sensory street verges through the use of, for example, culinary herbs or linear orchards could also add another dimension to the much-loved and expected tree-lined and green verge-lined residential avenues. Some allotments should be created for any residential properties which may not have a garden; creative interweaving of productive landscapes within the GBI network will be favourably considered.

URBAN LAYOUT / PUBLIC REALM

- 1.41 Public realm should focus on the importance of the street scene through attractive buildings, public art, street furniture, the use of materials, strong landscaping providing wide pavements and grass/planted verges, tree-lined avenues and where appropriate, incorporation of rain gardens and food production opportunities.
- 1.42 A highly connected network of streets should be designed, using existing field boundaries as a reference point to form an accessible, connected and fine grained urban layout with neighbourhoods that are legible and easy to navigate, with a wide range of interlinked uses and generous green spaces, ensuring street blocks are contiguous and permeable to encourage walking and social interaction.
- 1.43 The significance of the landscape features and key views must be retained and enhanced as part of the development. Grassy medians down the middle of streets should be used as a traffic calming tactic, especially on the larger roads which spur off the main A roads, to create lane separation for different transport modes.

Embedding Heritage Assets

DESIGNATED & NON-DESIGNATED HERITAGE ASSETS

- 1.44 Successful places tend to also have a strong heritage identity. Heritage can provide a powerful connection between people and place. For this reason, heritage should be harnessed in a manner that will drive Dunton Hill's distinctiveness, health and wellbeing and place attachment. Strategic Objective DH01c (embedding heritage assets) aims to ensure the surviving historic features, notably the listed buildings, the wider farmstead barns and buildings, moated sites, field boundaries, historic woodland and parish boundaries which preserve elements of a probable medieval or earlier landscape as well as later settlement patterns will be preserved and enhanced.
- 1.45 The farmstead shows that the farmhouse was the heart of the settlement, and that the existing large threshing barns to north and south of the main house were each part of larger courtyards and groupings of farm buildings. It was clearly a substantial farmstead throughout the eighteenth and nineteenth centuries, and the impressive scale and construction of the original threshing barns indicates that this was a wealthy and substantial farmstead for at least 100 years earlier. The surviving buildings within the landscape represent the typical medieval settlement pattern for this area and most are designated Grade II listed buildings.
- 1.46 The Natural heritage of the landscape (including views) should be interconnected with the heritage of the listed buildings as well as other non-designated heritage assets of interest.

The layout, orientation and morphology of the residential streets must be designed to enhance and highlight the key views (e.g. street axes towards the views, instead of buildings turning their backs onto them). As a minimum the proposals should retain and incorporate this historic fabric.

- 1.47 Cultural references from the past, such as field patterns, field names and building names should inform the character and place-making aspects of the village. For example, heritage names such as Dunton Ridge, East Horndon Hall, as well as current hill names, given to the site by the golf players, should all inspire how the design of the village develops and how it could inform future street naming; neighbourhood naming; landmark naming.
- 1.48 While a preliminary desktop heritage assessment has highlighted these key heritage assets, proposals should be informed by a comprehensive heritage and landscape character study, which should assess both the designated and non-designated heritage assets of the site.
- 1.49 Should any artefacts be found on site during construction, these should be recorded and safeguarded, with projects put in place to find a legacy home, including considerations as to how they can be incorporated as relics and public art in the village centre.

Sustainable & Clean Travel

ACTIVE TRAVEL

- 1.50 Strategic Objective DH01f (sustainable travel) seeks to ensure the development mitigates any road impacts resulting from the proposals and ensures development delivers sustainable travel options. The transport sector is innovating fast and provision should, as far as possible, be planned to future proof transport needs.
- 1.51 Starting from a blank canvas provides an opportunity to make streets like they do in many European cities, where cycling is the norm, rather than the exception. Principles of active design must guide the evolution of the village layout, street hierarchy and connectivity.
- 1.52 Planning for active travel must also consider the topography of the site, which will make this type of travel challenging for some; schemes such as electric bikes should therefore be a considered option, providing appropriate locations for picking-up and dropping-off bikes.
- 1.53 Masterplan proposals will need to demonstrate how they are adhering to the creation of 'walkable neighbourhood's through the design of a highly networked street hierarchy, providing safe, segregated lanes for cycling and walking that are equitable to all users, minimising conflict of different modes and user abilities.
- 1.54 The moto vehicle should be subordinate in importance on the street network within the village. Equally, while a car-limited development should be the main driver, the development should also make owning or using clean vehicle options possible, taking advantage of the latest and emerging technologies.
- 1.55 The necessary electric vehicle charging infrastructure should also be designed and delivered appropriately, adhering to principles of universal design and clutter free public realm. Vehicle sharing clubs should be encouraged to establish. These less polluting vehicle options should be coupled by planning for clean air zones/car free, especially around the schools.

- 1.56 Design should consider how to influence travel mode behaviours through design; i.e. streets narrow and 'village' in feel; dense network of streets, paths and parks ensures that it is faster and more enjoyable to walk and bike than to drive; less land to streets. Innovative public transport options, bearing in mind the topography of the site, making active travel challenging for some; incorporation of electric bike schemes to overcome this impediment. Segregated cycle ways and pedestrian routes should be provided, to encourage more to cycle and feel safe on the streets. These should integrate with 'quiet way' off-street options through green routes where possible.
- 1.57 The development should be served by an attractive, accessible, networked and safe streets designed so that they promote the safe passage for pedestrians and cyclists along segregate routes.
- 1.58 The roads will be designed to accommodate an electric bus as well as pedestrians and cyclists to discourage the use of the car for local journeys.
- 1.59 Cul-de-sacs should be an exception; street widths important to allow cycling and not allow the car to dominate, making them pedestrian friendly with opportunities for home zones to establish.

Social Place

VILLAGE CENTRE

- 1.60 Strategic Objective DH01d (social place) seeks to ensure development that creates active, vibrant village centres with the necessary community infrastructure, all connected and interspersed by nodes of social-cultural activity and recreational opportunities throughout the green infrastructure that foster social wellbeing and healthy communities. This aligns to the garden community principles which states they should deliver 'strong cultural, recreational and shopping facilities'.
- 1.61 The long-term success of any place is fundamentally rooted in the community that establishes; and this invariably depends on designing places that are social, that incorporate spaces where opportunities for recreation, social interaction and where individual and collective wellbeing pursuits can ensue. For Dunton Hills, the historic fabric of the farmstead already provides an ideal, cultural heritage backdrop for the primary village centre to establish itself with a village green and a mix of civic and commercial spaces to create a vibrant village core.
- 1.62 Knitting together the residential streets with the village centre(s) will be the green infrastructure, which will be interspersed with nodes of recreation/leisure activity and more local village hubs, making the whole village feel connected and walkable in line with DH01b (landscape-led).
- 1.63 Village Centre – District Centre Level, comparable with Ingatestone Village centre will create a central hub for new residents to come together and will provide day-to-day facilities including a supermarket, retail, healthcare, leisure and community amenities. Provision of retail to meet local needs as part of mixed-use development (strategic allocation). Amount of retail to be confirmed through Masterplan work.

Social Infrastructure

- 1.64 The timely delivery of education, health and community facilities early in the development will also be key to enabling the success of the village in its early years. Community spaces should be flexible to adapt to the needs and cultural preferences of the community which settles. Opportunities to co-design these spaces with the surrounding communities and/or with early settlers should be harnessed.
- 1.65 Health facility will need to be part of the community infrastructure, and this should be carefully planned to ensure the integration encourages better healthier behaviours. The facility should focus on wellbeing and prevention and be an exemplar example of integrating diagnosis, treatment and proactive wellbeing onsite, set in a backdrop of nature, where prescribing healthy activity would be made possible by the integration of services. Integrating the health facility in proximity to recreation and community facilities with actively encourages 'sustainable healthcare', embedding a design that encourages healthy living, eating, and activity and opportunities for social prescribing.
- 1.66 Design principles should demonstrate:
- i. principles of Centre for Sustainable Health Care including: prevention; patient empowerment and self-care; lean systems; low carbon alternatives
 - ii. principals of biophilic design which connect people with nature and /r use design elements which incorporate natural analogues (such as natural textures, patterns, colours and images) to create positive perceptual environments.

Smart Infrastructure

- 1.67 Strategic Objective DH01e (smart infrastructure) seeks to ensure development delivers smart, sustainable and resilient infrastructure to future-proof investment. This is fundamental to a development site that will take over two decades to complete. It is important that the infrastructure is creatively designed to take account of the anticipated opportunities presented by technological advances, therefore ensuring some flexibility to adapt to future progression. Sustainable development can only be achieved through the use of cleaner, smarter, more energy efficient service infrastructure that save on running costs in the longer-term. Digital infrastructure will be fundamental especially to account for the changing working patterns and needs for home working. Smart infrastructure should look at the best possible solutions to minimise resource waste and costs and maximise efficiencies, value for money and digital convenience.
- 1.68 Future proofing investment can be achieved by taking advantage of land value capture which is made possible by green field development at these early stages. It is important to recognise the fundamental role that GBI can play in delivering climate resilient smart infrastructure to help achieve resource efficiencies in water management, energy consumption as well as mitigation of air pollution.
- 1.69 Opportunities to embed anticipated technological advances must be secured early in the design and build of the scheme. There are many examples of how smart infrastructure is

being rolled out throughout the world; these should be taken into account in a scheme like this which will be 20 years into the future; opportunities such as driverless public transport; construction techniques that allow for accelerated delivery; building and construction materials that generate energy; smart grids that are more efficient at utilising energy; ambitious standards for environmental sustainability of housing; and undergrounding of refuse bins should all be considerations in the planning and design of the scheme, subject to further masterplanning work.

Enterprise, Innovation and Learning

- 1.70 Garden Community principles emphasise the need to integrate ‘a wide range of jobs within easy community distances of homes’. The success of enterprise depends on designing and building work places and learning spaces that are healthy-by-design to inspire and promote creativity and productivity. Strategic Objective DH02c (innovation & learning) aims to ensure the construction process that quick-starts a programme of innovation, learning and enterprise; and Strategic Objective DH02a (healthy & productive work places) seeks to ensure the delivery of a variety of workplaces to ensure a self-sustaining Garden Village with good job opportunities.
- 1.71 Dunton Hills is being developed amongst a backdrop of wider economic growth opportunities, including the Enterprise Park and East Horndon employment site. The proximity of these workplaces will make Dunton Hills Village a desirable place to live, to be near work.
- 1.72 Equally however, the village centre(s) themselves should provide opportunities for localised employment, to ensure a thriving local economy ensues. The spaces should be designed to flexibly accommodate A1-A5 use classes as well as appropriate B1 uses and other community spaces, thinking particularly about the entrepreneurial potential of the area.
- 1.73 The interior design should be informed by the latest research and guidance from key institutional bodies like British Council of Offices (BCO) and Chartered Institute of Building Services Engineering (CIBSE) on how design can create productive workplaces. The aspiration is to also create units that are suitable for small businesses as well as account for the current trend in flexible working modes, superfast broadband will be integral in all buildings to make this a success.
- 1.74 This aim also requires a programme of complementary actions to be embedded alongside the planning process, such as working with the research and innovation sectors and local education establishments, to ensure knowledge transfer and learning are firmly embedded from conception, through to construction and implementation of the scheme.
- 1.75 Strategic Objective DH02b (all through learning) will deliver an exemplar all through school with a design that fosters a learning environment for all types of learners and through life, from nursery through to adult learning opportunities.
- 1.76 Delivery of first primary, and eventually secondary education provision is key to the long term success of the village. Its location and how it is designed is also fundamental to the overall performance of the school. The school should ideally be placed away from the main arterial roads that surround the site, and should be orientated towards to village centre, so

that it becomes part of the social fabric of the place and creates opportunities for wider after-school recreation and learning pursuits by the wider community.

- 1.77 The school should be set within a garden itself, providing opportunities for outdoor learning and 'forest school' sessions in nature. It should also provide the onsite provision of playing fields for sports and physical education. The interior and functional design of the school should be informed by various case studies which have learned from successes and failures of makes a good learning environment (e.g. schools for future programmes). Designing for sensory comfort and stimulation are fundamental components of interior design and particular attention should be placed on issues of solar gains, ventilation, air quality and movement through school. Implementation of accredited standards, such as the WELL Standard will be expected.
- 1.78 The project team have already began a programme working with local schools and universities. This is instilling a culture of co-design, which could eventually lead to a cultural of co-delivery within the community. Such initiatives can help foster a sense of community and achievement and drive a sense of belonging to the place.
- 1.79 The construction programme will create a programme of apprenticeships to inspire future residents to be part of the process and should, where appropriate, incorporate elements of traditional skills and craftsmanship. Additional learning programmes could be implemented such as involving local schools and education establishments to help monitor and record any wildlife and changes as part of the school curriculum, establishing learning opportunities form the outset.

Community Stewardship

- 1.80 Strategic Objective DH03a (governance). Development that embeds the right governance structures and covenants to maintain an ongoing, proactive stewardship of communal and public interfacing spaces.
- 1.81 To achieve this aim requires the early thinking about the handover and legacy requirements of the development. The delivery process should firmly embed principles of co-creation and participation. Embedding these requirements early will help the self-sufficiency of the site, providing the longer-term environment for a more effective resource management approach as well as a spirit of active citizenship, participation and stewardship of the village assets.
- 1.82 Development proposals should demonstrate how ongoing management is to be achieved in line with the key garden community principle on legacy and stewardship arrangements. Active participation in the design and delivery will foster a sense of belonging and continued participation in the village life and stewardship of assets. The setup of such arrangements are to be funded by the development from the outset. A delivery and legacy management strategy should be developed, in collaboration with development management, local authority departments (highways, planning, property), the Parish Council, utility service providers, land trusts, to find the best model to achieve the desired outcome, without a long-term disproportionate and unsustainable financial burden on any one stakeholder group.

- 1.83 Equally thinking creatively on land registry solutions, such as creating covenants to achieve key stewardship elements such as maintenance of front of house green verges, or treatment of front gardens.
- 1.84 This should include the elements of logistics, project management, governance arrangements, code of construction, amongst others. to give assurance around the deliverability of the scheme, within a timely manner.

Strategic Housing Allocations

West Horndon Industrial Estate

POLICY R27: LAND AT WEST HORNDON INDUSTRIAL ESTATE

Land at West Horndon Industrial Estate, as shown in Appendix 2, is allocated for residential development. Development proposals should consider the following:

Amount and type of development:

- j. Provision for around 580 new homes of mixed size and type, including affordable housing;
- k. Provision for one small to medium sized care home (around 60 bed scheme);
- l. Provision for 5% custom build across the entire allocation area;

Development principles:

- m. Developing a comprehensive masterplan and phasing strategy as part of a planning application;
- n. Active involvement with the West Horndon Neighbourhood Plan process, ensuring community led scheme;
- o. Access points via Station Road and Childerditch Lane which will require highway improvements;
- p. Consideration of retaining some existing employment use on site;

- q. Creating a new village centre, considering the relationship to the train station, comprising retail and supporting community facilities;
- r. Enhance links with West Horndon train station;
- s. Provision for publicly accessible open space.

Infrastructure requirements:

- t. Financial contribution towards existing primary school provision;
- u. Financial contribution towards new early years and childcare nursery provision would be required;
- v. Provision for improved bus service;
- w. Provision for health facilities.
- x. The site is located within a Critical Drainage Area. This development may have the potential to impact on the Critical Drainage Area in respect of surface water flooding. As a result of this the site is likely to require an individually designed mitigation scheme to address this issue.

Land North of Shenfield, Shenfield

POLICY R19: LAND NORTH OF SHENFIELD

Land north of Shenfield, as shown in Appendix 2, known as Officer's Meadow and surrounding land is allocated for residential development. Development proposals should consider the following:

Amount and type of development:

- a. Provision for around 825 new homes of mixed size and type, including affordable housing;
- b. Provision for at least 2.1ha of land for educational use (primary school);

- c. Provision for one small to medium sized care home (around 60 bed scheme);
- d. Provision for 5% custom build across the entire allocation area;
- e. Consideration for provision of appropriate new employment development on land north of Chelmsford Road (A1023).

Development principles:

- f. Comprehensive masterplan and phasing strategy to be prepared and considered as planning applications come forward;
- g. Site is identified as a key gateway location and development should reflect this in terms of design quality particularly on land near to Junction 12, A12;
- h. Access points via Chelmsford Road (A1023) and Alexander Lane which will require highway improvements;
- i. Potential for diversion of Alexander Lane, creating a quiet lane for pedestrians and cyclists, with the provision for new and improved route through the development site linking to Chelmsford Road;
- j. Enhancing sustainable links with Shenfield train station;
- k. Provision for publicly accessible open space;
- l. Maintain and enhance Public Right of Way through site;
- m. Maintain and enhance Local Wildlife Site (Arnold's Wood) which is within the allocation;

Infrastructure requirements:

- n. Financial contribution towards the provision of a new primary school with potential co-location of an early years and childcare nursery;
- o. Pedestrian and cycle crossing points across Chelmsford Road (A1023);
- p. Provision for improved bus service;
- q. The site is located within a Critical Drainage Area. This development may have the potential to impact on the Critical Drainage Area in respect of surface water flooding. As a result of this the site is likely to require an individually designed mitigation scheme to address this issue.

Ford Headquarters and Council Depot, Warley

POLICY R06 AND R07: FORD HEADQUARTERS AND COUNCIL DEPOT

The Ford Headquarters and Council Depot, Warley, as shown in Appendix 2, is allocated for residential development. Development proposals should consider the following:

Amount and type of development:

- a. Provision for around 473 new homes of mixed size and type, including affordable housing;
- b. Provision for one small to medium sized care home (around 60 bed scheme);
- c. Provision for 5% custom build across the entire allocation area;
- d. Consideration of provision of new employment development on site;

Development principles:

- e. Site requires a comprehensive masterplan and phasing strategy as part of a planning application;
- f. Access points via Eagle Way and The Drive which will require highway improvements;
- g. Retention of existing community facilities (e.g. Brentwood Imperial Youth Band)
- h. Provision for publicly accessible open space;
- i. Consideration of historic context for the area (e.g. Essex Regiment and Ford Motor Company);
- j. Two Listed Buildings on adjoining land to the west;
- k. Maintain and enhance adjoining Local Wildlife Sites.

Infrastructure requirements:

- l. Financial contribution towards existing primary school provision;
- m. Financial contribution towards new early years and childcare nursery provision would be required;

- n. Provision for improved bus service;
- o. The site is located within a Critical Drainage Area. This development may have the potential to impact on the Critical Drainage Area in respect of surface water flooding. As a result of this the site is likely to require an individually designed mitigation scheme to address this issue.

Housing Allocations

Land off Nags Head Lane, Brentwood

POLICY R01: LAND OFF NAGS HEAD LANE

Land off Nags Head Lane, Brentwood, as shown in Appendix 2, is allocated for housing development. Development proposals should consider the following:

Amount and type of development

- a. Provision for around 125 new homes of mixed size and type;

Development principles

- b. Vehicular access point via Nags Head Lane;
- c. Provide for sensitive landscaping along the north and eastern boundaries adjoining existing commercial development and residential dwellings;
- d. Provision for publicly accessible open space.
- e. Provision for pedestrian and cycle access through the site, increasing permeability.

Infrastructure requirements

- f. Financial contribution to existing primary school provision;

- g. Financial contribution to the expansion of current early years and childcare nursery provision would be required;
- h. The site is located within a Critical Drainage Area. This development may have the potential to impact on the Critical Drainage Area in respect of surface water flooding. As a result of this the site is likely to require an individually designed mitigation scheme to address this issue.

Land at Honeypot Lane, Brentwood

POLICY R02: LAND AT HONEYPOT LANE

Land at Honeypot Lane, as shown in Appendix 2, is allocated for residential development. Development proposals should consider the following:

Amount and type of development:

- a. Provision for around 200 new homes of mixed size and type, including affordable housing;
- b. Potential for the provision of a small to medium sized care home (around 40 bed scheme);

Development principles:

- c. Provision for publicly accessible open space;
- d. Provision for pedestrian and cycle access through the site, increasing permeability particularly through St Faiths Country Park;
- e. Provision for safe direct walking and cycling routes to the nearest school.

Infrastructure requirements:

- f. Financial contribution to existing primary school provision;

- g. Financial contribution towards new early years and childcare nursery provision would be required;
- h. Vehicular access point via Honeyplot Lane;
- i. The site is located within a Critical Drainage Area. This development may have the potential to impact on the Critical Drainage Area in respect of surface water flooding. As a result of this the site is likely to require an individually designed mitigation scheme to address this issue.

Sow and Grow Nursery, Pilgrims Hatch

POLICY R03: SOW AND GROW NURSERY

Sow and Grow Nursery, Pilgrims Hatch, as shown in Appendix 2, is allocated for housing development. Development proposals should consider the following:

Amount and type of development:

- a. Provision for around 38 new homes of mixed size and type, including affordable housing;

Development principles:

- b. Vehicular access point via Ongar Road;
- c. Provision for pedestrian and cycle access through the site, increasing permeability;
- d. Respect the Historic Park and Garden site (South Weald Park) to west of the site;
- e. Provide for sensitive landscaping along the south western boundary adjoining the allotments.

Infrastructure requirements:

- f. Financial contribution to existing primary school provision;
- g. Financial contribution towards expansion of current early years and childcare nursery provision would be required;
- h. The site is located within a Critical Drainage Area. This development may have the potential to impact on the Critical Drainage Area in respect of surface water flooding. As a result of this the site is likely to require an individually designed mitigation scheme to address this issue.

Land at Mascalls Lane, Warley

POLICY R04: LAND AT MASCALLS LANE

Land at Mascalls Lane, Warley, as shown in Appendix 2, is allocated for housing development. Development proposals should consider the following:

Amount and type of development:

- a. Provision for around 9 new homes of mixed size and type;

Development principles:

- b. Vehicular access point via Mascalls Lane;
- c. Provide for sensitive landscaping along the north, east and western boundaries adjoining existing residential dwellings.

Infrastructure requirements:

- d. Financial contribution to existing primary school provision;
- e. Financial contribution towards new early years and childcare nursery provision would be required;
- f. The site is located within a Critical Drainage Area. This development may have the potential to impact on the Critical Drainage Area in respect of surface water flooding. As a result of this the site is likely to require an individually designed mitigation scheme to address this issue.

Land off Warley Hill, Warley

POLICY R05: LAND OFF WARLEY HILL

Land off Warley Hill, Warley, as shown in Appendix 2, is allocated for housing development. Development proposals should consider the following:

Amount and type of development:

- a. Provision for around 43 new homes of mixed size and type;

Development principles:

- b. Principle vehicular access point via Pastoral Way and secondary access point via Warley Hill;
- c. Protect and enhance the setting of nearby Listed Buildings;

Infrastructure requirements:

- d. Financial contribution to existing primary school provision;
- e. Financial contribution towards new early years and childcare nursery provision would be required;
- f. The site is located within a Critical Drainage Area. This development may have the potential to impact on the Critical Drainage Area in respect of surface water flooding. As a result of this the site is likely to require an individually designed mitigation scheme to address this issue.

Brentwood Railway Station car park, Brentwood

POLICY R08: BRENTWOOD RAILWAY STATION CAR PARK

Brentwood Railway Station car park, as shown in Appendix 2, is allocated for housing development. Development proposals should consider the following:

Amount and type of development:

- a. Provision for around 100 new homes of mixed size and type, including affordable housing;

Development principles:

- b. Vehicular access point via St James Road
- c. Provision for publicly accessible open space;
- d. Provision for pedestrian and cycle access through the site, increasing permeability;
- e. Development proposals should consider wider Town Centre parking needs in collaboration with other development sites where there is existing parking on site, in order to ensure that the current level of Town Centre public parking spaces is maintained.

Infrastructure requirements:

- f. Financial contribution to existing primary school provision;
- g. Financial contribution towards new early years and childcare nursery provision would be required;
- h. Financial contribution towards sustainable transport facilities at the rail station including both layover bays and departure stands;
- i. The site is located within a Critical Drainage Area. This development may have the potential to impact on the Critical Drainage Area in respect of surface water flooding. As a result of this the site is likely to require an individually designed mitigation scheme to address this issue.

Westbury Road Car Park, Brentwood

POLICY R09: WESTBURY ROAD CAR PARK

Land off Westbury Road, Brentwood, as shown in Appendix 2, is allocated for housing development. Development proposals should consider the following:

Amount and type of development:

- a. Provision for around 45 new homes of mixed size and type, including affordable housing;

Development principles:

- b. Vehicular access point via Westbury Road;
- c. Site is identified as a key opportunity area within the Town Centre Design Plan and development should reflect this in terms of design quality;
- d. Provision for pedestrian and cycle access through the site, increasing permeability;
- e. Possible retention of public car parking along with Chatham Way and William Hunter Way Housing sites;
- f. Protect and where possible enhance the character and appearance of the Conservation Area which adjoins the site.
- g. Protect and enhance the setting of nearby Listed Buildings;
- h. Undertake an Archaeological Assessment as within historic core of Brentwood.
- i. Development proposals should consider wider Town Centre parking needs in collaboration with other development sites where there is existing parking on site, in order to ensure that current level of Town Centre public parking spaces is maintained.

Infrastructure requirements:

- j. Financial contribution to existing primary school provision;
- k. Financial contribution towards new early years and childcare nursery provision would be required;

- I. The site is located within a Critical Drainage Area. This development may have the potential to impact on the Critical Drainage Area in respect of surface water flooding. As a result of this the site is likely to require an individually designed mitigation scheme to address this issue.

Land at Hunter House, Brentwood

POLICY R10: LAND AT HUNTER HOUSE

Land at Hunter House, as shown in Appendix 2, is allocated for housing development. Development proposals should consider the following:

Amount and type of development:

- a. Provision for around 48 new homes of mixed size and type, including affordable housing;

Development principles:

- b. Vehicular access point via Western Road;
- c. Provision for pedestrian and cycle access through the site, increasing permeability;
- d. Heritage assessment taking account of archaeological potential for the historic core of Brentwood.

Infrastructure requirements:

- e. Financial contribution to existing primary school provision;
- f. Financial contribution towards new early years and childcare nursery provision would be required;
- g. The site is located within a Critical Drainage Area. This development may have the potential to impact on the Critical Drainage Area in respect of surface water flooding. As a result of this the site is likely to require an individually designed mitigation scheme to address this issue.

Chatham Way car park, Brentwood

POLICY R11: CHATHAM WAY CAR PARK

Chatham Way car park, Brentwood, as shown in Appendix 2, is allocated for housing development. Development proposals should consider the following:

Amount and type of development:

- a. Provision for around 31 new homes of mixed size and type, including affordable housing;

Development principles:

- b. Vehicular access point via Chatham Way and Crown Street;
- c. Provision for pedestrian and cycle access through the site, increasing permeability;
- d. Possible retention of public car parking along with Westbury Road and William Hunter Way Housing sites;
- e. Protect and where possible enhance the character and appearance of the Conservation Area which the site is situated within;
- f. Heritage assessment taking account of archaeological potential for the historic core of Brentwood;
- g. Development proposals should consider wider Town Centre parking needs in collaboration with other development sites where there is existing parking on site, in order to ensure that the current level of Town Centre public parking spaces is maintained.

Infrastructure requirements:

- h. Financial contribution to existing primary school provision;
- i. Financial contribution towards new early years and childcare nursery provision would be required;
- j. The site is located within a Critical Drainage Area. This development may have the potential to impact on the Critical Drainage Area in respect of surface water flooding. As a result of this the site is likely to require an individually designed mitigation scheme to address this issue.

William Hunter Way car park, Brentwood

POLICY R12: WILLIAM HUNTER WAY CAR PARK

William Hunter Way car park, Brentwood, as shown in Appendix 2, is allocated for housing and retail development. Development proposals should consider the following:

Amount and type of development:

- a. Provision for around 300 new homes of mixed size and type, including affordable housing;
- b. Provision for retail use.

Development principles:

- c. Vehicular access point via William Hunter Way;
- d. Site is identified as a key opportunity area within the Town Centre Design Plan and development should reflect this in terms of design quality;
- e. Comprehensive masterplan to be developed with full consideration of the sensitive site edges;
- f. Provision for pedestrian and cycle access through the site, increasing permeability;
- g. Protect and where possible enhance the character and appearance of the Conservation Area which adjoins the site;
- h. Development proposals should consider wider Town Centre parking needs in collaboration with other development sites where there is existing parking on site, in order to ensure that the current level of Town Centre public parking spaces is maintained.

Infrastructure requirements:

- i. Financial contribution to existing primary school provision;
- j. Financial contribution towards new early years and childcare nursery provision would be required;
- k. The site is located within a Critical Drainage Area. This development may have the potential to impact on the Critical Drainage Area in respect of

surface water flooding. As a result of this the site is likely to require an individually designed mitigation scheme to address this issue.

Wates Way Industrial Estate, Brentwood

POLICY R13: WATES WAY INDUSTRIAL ESTATE

Wates Way Industrial Estate, Brentwood, as shown in Appendix 2, is allocated for housing and retail development. Development proposals should consider the following:

Amount and type of development:

- a. Provision for around 80 new homes of mixed size and type, including affordable housing;
- b. Provision for Retail/Commercial use;

Development principles:

- c. Vehicular access point via Ongar Road;
- d. Provision for publicly accessible open space;
- e. Provision for pedestrian and cycle access through the site, increasing permeability;
- f. Recognition of historic use of the site as a former iron works, opportunity to promote local history.

Infrastructure requirements:

- g. Financial contribution to existing primary school provision;
- h. Financial contribution towards new early years and childcare nursery provision would be required;

- i. The site is located within a Critical Drainage Area. This development may have the potential to impact on the Critical Drainage Area in respect of surface water flooding. As a result of this the site is likely to require an individually designed mitigation scheme to address this issue.

Land off Doddinghurst Road, Pilgrims Hatch and Brentwood

POLICY R14 & R15: LAND OFF DODDINGHURST ROAD

Land off Doddinghurst Road, Pilgrims Hatch and Brentwood as shown in Appendix 2, is allocated for residential development. Development proposals should consider the following:

Amount and type of development:

- a. Provision for around 200 new homes of mixed size and type, including affordable housing;

Development principles:

- b. Vehicular access points via Doddinghurst Road for both sites and/or Karen Close and Russell Close for R15;
- c. Provision for publicly accessible open space;
- d. Provision for pedestrian and cycle access through the site, increasing permeability;
- e. Potential impact on residential amenity from the A12 in terms of noise and air quality.

Infrastructure requirements:

- f. Financial contribution towards expansion of existing primary school provision;
- g. Financial contribution to the expansion of existing early years and childcare nursery provision would be required;

- h. Provision for improved bus service;
- i. The site is located within a Critical Drainage Area. This development may have the potential to impact on the Critical Drainage Area in respect of surface water flooding. As a result of this the site is likely to require an individually designed mitigation scheme to address this issue.

Land off Crescent Drive, Shenfield

POLICY R16: LAND OFF CRESCENT DRIVE

Land off Crescent Drive, Shenfield, as shown in Appendix 2, is allocated for housing development. Development proposals should consider the following:

Amount and type of development:

- a. Provision for around 55 new homes of mixed size and type, including affordable housing;

Development principles:

- b. Vehicular access point via Crescent Drive;
- c. Maintain and strengthen landscaped boundaries to the south west of the site;
- d. Protect existing site trees within the development site;
- e. Provision for pedestrian and cycle access through the site, increasing permeability.

Infrastructure requirements:

- f. Financial contribution to existing primary school provision;
- g. Financial contribution towards new early years and childcare nursery provision would be required;

- h. Provision for publicly accessible open space;
- i. The site is located within a Critical Drainage Area. This development may have the potential to impact on the Critical Drainage Area in respect of surface water flooding. As a result of this the site is likely to require an individually designed mitigation scheme to address this issue.

Land at Priests Lane, Shenfield

POLICY R17: LAND AT PRIESTS LANE

Land at Priests Lane, Shenfield, as shown in Appendix 2, is allocated for residential development. Development proposals should consider the following:

Amount and type of development:

- a. Provision for around 95 new homes of mixed size and type, including affordable housing;
- b. Potential for the provision of a small to medium sized care home (around 40 bed scheme);

Development principles:

- c. Vehicular access points via Priests Lane and Bishops Walk;
- d. Provision for publicly accessible open space;
- e. Provision for pedestrian and cycle access through the site, increasing permeability;
- f. Provision for Endeavour School expansion.

Infrastructure requirements:

- g. Contribution towards new early years and childcare nursery provision would be required;
- h. The site is located within a Critical Drainage Area. This development may have the potential to impact on the Critical Drainage Area in respect of surface water flooding. As a result of this the site is likely to require an individually designed mitigation scheme to address this issue.

The Eagle and Child Public House, Shenfield

POLICY R18: THE EAGLE AND CHILD PUBLIC HOUSE

Land at The Eagle and Child Pub, Shenfield, as shown in Appendix 2, is allocated for housing development. Development proposals should consider the following:

Amount and type of development:

- a. Provision for around 20 new homes of mixed size and type, including affordable housing;

Development principles:

- b. Vehicular access point via Chelmsford Road (A1023);

Infrastructure requirements:

- c. Financial contribution towards new early years and childcare nursery provision would be required;
- d. The site is located within a Critical Drainage Area. This development may have the potential to impact on the Critical Drainage Area in respect of surface water flooding. As a result of this the site is likely to require an individually designed mitigation scheme to address this issue.

Land South of Ingatestone

POLICY R20: LAND SOUTH OF INGATESTONE

Land south of Ingatestone, comprising former garden centre and A12 works site, as shown in Appendix 2, is allocated for housing development. Development proposals should consider the following:

Amount and type of development:

- a. Provision for around 161 new homes of mixed size and type;

Development principles:

- b. Vehicular access points via Roman Road;
- c. Provision for publicly accessible open space;
- d. Provision for pedestrian and cycle access through the site, increasing permeability;
- e. Impact on residential amenity from the A12 and railway line in terms of noise and air quality.
- f. Undertake an Archaeological Assessment due to proximity to Roman Road.

Infrastructure requirements:

- g. Financial contribution to existing primary school provision;
- h. Financial contribution to the expansion of current early years and childcare nursery provision would be required;
- i. The site is located within a Critical Drainage Area. This development may have the potential to impact on the Critical Drainage Area in respect of surface water flooding. As a result of this the site is likely to require an individually designed mitigation scheme to address this issue.

Land adjacent to the A12, Ingatestone

POLICY R21: LAND ADJACENT TO THE A12, INGATESTONE

Land adjacent to the A12, Ingatestone, as shown in Appendix 2, is allocated for housing development. Development proposals should consider the following:

Amount and type of development:

- a. Provision for around 57 new homes of mixed size and type;

Development principles:

- b. Vehicular access point via Roman Road;
- c. Provision for publicly accessible open space;
- d. Impact on residential amenity from the A12 in terms of noise and air quality.

Infrastructure requirements:

- e. Financial contribution to existing primary school provision;
- f. Financial contribution to the expansion of current early years and childcare nursery provision would be required;
- g. The site is located within a Critical Drainage Area. This development may have the potential to impact on the Critical Drainage Area in respect of surface water flooding. As a result of this the site is likely to require an individually designed mitigation scheme to address this issue.

Brizes Corner Field, Kelvedon Hatch

POLICY R22: BRIZES CORNER FIELD

Brizes Corner Field, Kelvedon Hatch, as shown in Appendix 2, is allocated for housing development. Development proposals should consider the following:

Amount and type of development:

- a. Provision for around 23 new homes of mixed size and type;

Development principles:

- b. Vehicular access points via Blackmore Road;
- c. Provision for publicly accessible open space;

Infrastructure requirements:

- d. Financial contribution to existing primary school provision.

Land off Stocks Lane, Kelvedon Hatch

POLICY R23: LAND OFF STOCKS LANE

Land off Stocks Lane, Kelvedon Hatch, as shown in Appendix 2, is allocated for housing development. Development proposals should consider the following:

Amount and type of development:

- a. Provision for around 30 new homes of mixed size and type;

Development principles:

- b. Vehicular access points via Stocks Lane;
- c. Provision for publicly accessible open space;

Infrastructure requirements:

- d. Financial contribution to existing primary school provision.

Land at Hook End

POLICY R24: LAND AT HOOK END

Land at Hook End, Blackmore Road, as shown in Appendix 2, is allocated for housing development. Development proposals should consider the following:

Amount and type of development:

- a. Provision for around 10 new homes of mixed size and type;

Development principles:

- b. Vehicular access points via Blackmore Road;
- c. Maintain provision of public open space in connection with Tipps Cross Community Hall.

Land north of Woollard Way, Blackmore

POLICY R25: LAND NORTH OF WOOLLARD WAY

Land north of Blackmore, as shown in Appendix 2, is allocated for housing development. Development proposals should consider the following:

Amount and type of development:

- a. Provision for around 40 new homes of mixed size and type;

Development principles:

- b. Vehicular access points via Redrose Lane;
- c. Provision for pedestrian and cycle access through the site, increasing permeability;
- d. Provision for publicly accessible open space;
- e. Undertake an Archaeological Assessment as within historic settlement of Blackmore.

Infrastructure requirements:

- f. Financial contribution to existing primary school provision.

Land north of Orchard Piece, Blackmore

POLICY R26: LAND NORTH OF ORCHARD PIECE

Land north of Orchard Piece, Blackmore, as shown in Appendix 2, is allocated for housing development. Development proposals should consider the following:

Amount and type of development:

- g. Provision for around 30 new homes of mixed size and type;

Development principles:

- h. Vehicular access points via Redrose Lane;
- i. Provision for pedestrian and cycle access through the site, increasing permeability;
- j. Provision for publicly accessible open space;
- k. Undertake an Archaeological Assessment as within historic settlement of Blackmore.

Infrastructure requirements:

- I. Financial contribution to existing primary school provision.

Strategic Employment Allocations

Brentwood Enterprise Park

The site is located at a key strategic location at the junction of the M25 and A127. Most of the site comprises the former M25 works site and associated uses and comprises previously developed land.

POLICY E11: BRENTWOOD ENTERPRISE PARK

Land south east of M25 Junction 29, as show in Appendix 2, is allocated to provide high quality employment development and significant number of jobs. Development proposals should consider the following:

Amount and type of development

- a. At least 26.0ha of land for employment use (principally use classes B1, B2 and B8) taking account of market needs along with ancillary and supporting uses.

Supporting on-site development

- b. Ancillary uses, for example:
 - Use class C1 hotel;
 - Use classes A1 to A4 including small shops and eateries;
 - Use class D1 including day nurseries, creches and health services

Development principles

- c. Landscaping and earthworks within the gross site area and in particular in the southern part of the allocated area, will enable the formation of a

developable site and provide improved visual amenity between the site and surrounding land. Landscaping provided is to be retained thereafter;

- d. Site is identified as a key gateway location and development should reflect this in terms of design quality;
- e. Consideration of adjoining Local Wildlife Site (Hobbs Hole);
- f. Maintain Public Right of Way through site.
- g. Full traffic assessment and Travel Plan to accompany an application;

Infrastructure requirements

- h. Potential for on-site Early Years and childcare nursery school provision;
- i. Highway works including potential access points via M25 Junction 29 and Warley Street (B186) and associated slip roads;
- j. Provision for public transport links with the surrounding area;
- k. Provision for improved walking and cycling links with the surrounding area.

Employment Allocations

Childerditch Industrial Estate

POLICY E12: CHILDERDITCH INDUSTRIAL ESTATE

Land at Childerditch Industrial Estate, as shown in Appendix 2, is allocated for employment use. Development proposals should consider the following:

Amount and type of development

- a. 20.64ha of employment land (principally use classes B1, B2 and B8), including elements of landscaping to improve visual amenity;

Development Principles

- b. Access via eastbound A127;
- c. Provision for improved walking and cycling links with the surrounding area;
- d. Full traffic assessment and Travel Plan to accompany an application;
- e. Consideration for improvements to A127 junction;
- f. Provides opportunity to expand an existing employment site and improve site layout.

Codham Hall Farm

POLICY E10: CODHAM HALL FARM

Land north east of M25 Junction 29 is allocated for employment use as shown in Appendix 2. Development proposals should consider the following:

Amount and type of development

- a. 9.6ha of employment land (principally use classes B1, B2 and B8);
- b. 8.0ha of land to provide for landscaping, amenity, access and ancillary uses to support the sustainability of the site.

Development Principles

- c. Access via M25 Junction 29;
- d. Consideration of adjoining Local Wildlife Site (Codham Hall Wood);
- e. Maintain Public Right of Way through site;
- f. Provision of improved walking and cycling links with the surrounding area.

East Horndon Hall

POLICY E13: EAST HORNDON HALL

Land at East Horndon Hall is allocated for employment use. Development proposals should consider the following:

Amount and type of development

- a. 5.5ha of employment land (principally use classes B1, B2 and B8), including elements of landscaping to improve visual amenity;

Development Principles

- b. Improved links with Dunton Hills Garden Village proposals;
- c. Access via Tilbury Road;
- d. Provision for improved walking and cycling links;
- e. Full traffic assessment and Travel Plan to accompany an application;
- f. Protect and enhance the setting of nearby Listed Buildings, East Horndon Hall and All Saints Church;

Land adjacent to A12 and Slip Road, Ingatestone

POLICY E08: LAND ADJACENT TO A12 AND SLIP ROAD, INGATESTONE

Land adjacent to A12 and slip road, Ingatestone is allocated for employment use. Development proposals should consider the following:

Amount and type of development:

- a. 2.06ha of employment land (principally use classes B1, B2 and B8);

Development Principles

- b. Primary purpose of the allocation is to deliver jobs for the area and so consideration will be given to other uses that enable job opportunities, taking account of market needs.
- c. Access via Roman Road with potential highway improvements;
- d. Provision for improved walking and cycling links with the surrounding area;
- e. Full traffic assessment and Travel Plan to accompany an application;

Appendix 1 – Housing Trajectory¹

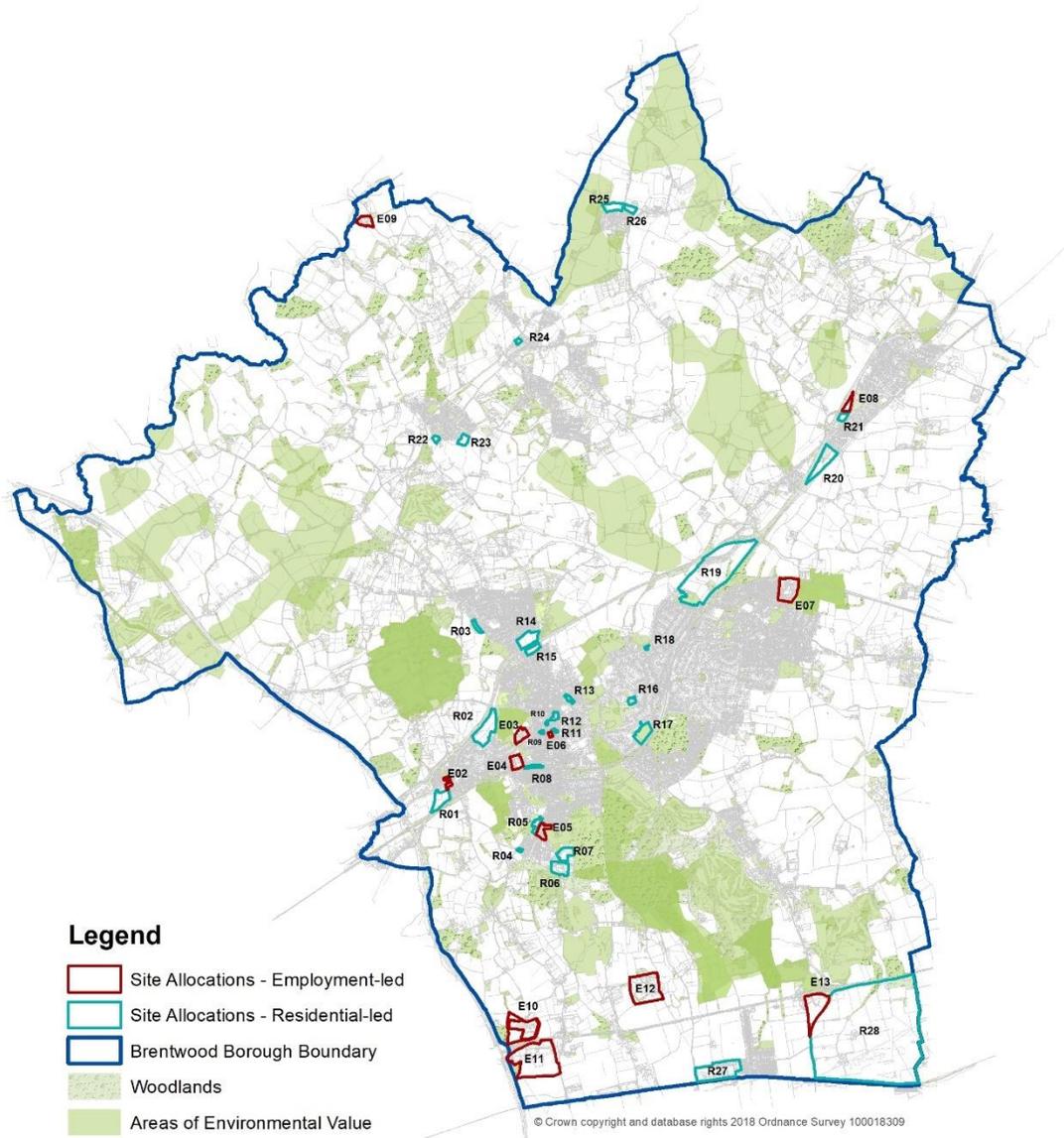
Site Ref	Site Name	Total Number of Dwellings	2018-23					2018-23 Total	2023-28					2023-28 Total	2028-33					2028-33 Total
			2018-19	2019-20	2020-21	2021-22	2022-23		2023-24	2024-25	2025-26	2026-27	2027-28		2028-29	2029-30	2030-31	2031-32	2032-33	
102 (R12)	William Hunter Way	300	0	0	0	0	25	25	50	50	50	50	40	240	35	0	0	0	0	35
039 (R09)	Westbury Road Car Park, Westbury Road, Brentwood	45	0	0	9	20	16	45	0	0	0	0	0	0	0	0	0	0	0	0
020 (R27)	West Horndon Industrial Estates	200	0	0	0	25	25	50	25	25	25	25	25	125	25	0	0	0	0	25
021 / 152 (R27)	West Horndon Industrial Estates	380	0	0	0	40	40	80	40	40	40	40	40	200	40	40	20	0	0	100
003 (R13)	Wates Way Industrial Estate, Ongar Road, Brentwood	80	0	0	0	0	16	16	25	25	14	0	0	64	0	0	0	0	0	0
010 (R03)	Sow and Grow Nursery, Ongar Road, Pilgrims Hatch	38	0	0	18	20	0	38	0	0	0	0	0	0	0	0	0	0	0	0
034 / 235 / 087 / 276 (R19)	Officer's Meadow, Alexander Lane / Chelmsford Road, Shenfield	510	0	0	0	0	0	0	75	75	75	75	75	375	75	60	0	0	0	135
083 (R05)	Land west of Warley Hill, Pastoral Way, Warley	43	0	0	0	0	0	0	20	23	0	0	0	43	0	0	0	0	0	0
076 (R26)	Land south of Redrose Lane, north of Orchard Piece, Blackmore	30	0	0	0	10	20	30	0	0	0	0	0	0	0	0	0	0	0	0
077 (R25)	Land south of Redrose Lane, north of Orchard Piece, Blackmore	40	0	0	0	0	0	0	20	20	0	0	0	40	0	0	0	0	0	0
075B (R23)	Land off Stocks Lane, Kelvedon Hatch	30	0	0	0	20	10	30	0	0	0	0	0	0	0	0	0	0	0	0
023A & 23B (R14 & R15)	Land off Doddinghurst Road, either side of A12	200	0	0	0	0	0	0	50	50	50	50	0	200	0	0	0	0	0	0
158 (R19)	Land north of A1023 Chelmsford Road, Shenfield	100	0	0	0	0	0	0	30	30	30	10	0	100	0	0	0	0	0	0
032 (R01)	Land East of Nags Head Lane, Brentwood	125	0	0	0	25	25	50	25	25	25	0	0	75	0	0	0	0	0	0
263 (R19)	Land east of Chelmsford Road, Shenfield	215	0	0	0	0	0	0	50	50	50	65	0	215	0	0	0	0	0	0
044 / 178 (R17)	Land at Priests Lane, Brentwood	95	0	0	15	30	30	75	20	0	0	0	0	20	0	0	0	0	0	0
041 (R10)	Land at Hunter House, Western Road, Brentwood	48	0	0	0	0	0	0	0	12	12	24	0	48	0	0	0	0	0	0
022 (R02)	Land at Honeypot Lane, Brentwood	200	0	0	0	0	0	0	50	50	50	50	0	200	0	0	0	0	0	0
186 (R16)	Land at Crescent Drive, Shenfield	55	0	0	0	5	25	30	25	0	0	0	0	25	0	0	0	0	0	0
079A (R21)	Land Adjacent to Ingatestone Bypass	57	0	0	0	25	25	50	7	0	0	0	0	7	0	0	0	0	0	0
027 (R04)	Land adjacent to Carmel, Mascalls Lane, Warley	9	0	0	9	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0
085B (R24)	Land adj Tipps Cross Community Hall, Blackmore Road	5	0	0	0	5	0	5	0	0	0	0	0	0	0	0	0	0	0	0
117A & 117B (R06 & R07)	Ford Headquarters, Warley	350	0	0	0	0	0	0	0	0	0	0	0	0	70	70	70	70	70	350
311 (R18)	Eagle and Child Pub, Shenfield	20	0	0	0	10	10	20	0	0	0	0	0	0	0	0	0	0	0	0
200 (R28)	Dunton Hills Garden Village	2500	0	0	0	0	100	100	150	250	250	250	250	1150	250	250	250	250	250	1250
081 (R07)	Council Depot, The Drive, Warley	123	0	0	0	0	0	0	0	40	40	40	3	123	0	0	0	0	0	0
294 (R24)	Chestnut Field, Blackmore Road	5	0	0	0	5	0	5	0	0	0	0	0	0	0	0	0	0	0	0

¹ Housing trajectory that includes extant planning permissions to be set out within the 5 year land supply report.

Site Ref	Site Name	Total Number of Dwellings	2018-23					2018-23 Total	2023-28					2023-28 Total	2028-33					2028-33 Total
			2018-19	2019-20	2020-21	2021-22	2022-23		2023-24	2024-25	2025-26	2026-27	2027-28		2028-29	2029-30	2030-31	2031-32	2032-33	
040 (R11)	Chatham Way / Crown Street Car Park Brentwood	31	0	0	15	16	0	31	0	0	0	0	0	0	0	0	0	0	0	0
194 (R22)	Brizes Corner Field, Blackmore Road, Kelvedon Hatch	23	0	0	0	12	11	23	0	0	0	0	0	0	0	0	0	0	0	0
002 (R08)	Brentwood railway station car park	100	0	0	0	0	0	0	0	0	0	0	0	0	0	25	25	25	25	100
128 (R20)	Ingatstone Garden Centre, Roman Road, Ingatstone	120	0	0	0	40	40	80	40	0	0	0	0	40	0	0	0	0	0	0
106 (R20)	Site adjacent to Ingatstone Garden Centre (former A12 works site)	41	0	0	0	20	21	41	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL		6118	0	0	66	328	439	833	702	765	711	679	433	3290	495	445	365	345	345	1995

APPENDIX 2 – SITE ALLOCATIONS

OVERVIEW MAP



SITE ALLOCATIONS – RESIDENTIAL LED

Site Policy Number	Name	Indicative number of dwellings
R01	Land off Nags Head Lane, Brentwood	125
R02	Land at Honeypot Lane, Brentwood	200
R03	Sow and Grow Nursery, Pilgrims Hatch	38
R04	Land at Mascalls Lane, Warley	9
R05	Land off Warley Hill, Pastoral Way, Warley	43
R06	Ford Headquarters and Council Depot, Warley - Southern Site	473
R07	Ford Headquarters and Council Depot, Warley - Northern Site	
R08	Brentwood railway station car park	100
R09	Westbury Road Car Park, Brentwood	45
R10	Land at Hunter House, Brentwood	48
R11	Chatham Way car park, Brentwood	31
R12	William Hunter Way car park, Brentwood	300
R13	Wates Way Industrial Estate, Brentwood	80
R14	Land off Doddinghurst Road, Pilgrims Hatch	200
R15	Land off Doddinghurst Road, Brentwood	
R16	Land off Crescent Drive, Shenfield	55
R17	Land at Priests Lane, Shenfield	95
R18	The Eagle and Child Public House, Shenfield	20
R19	Land north of Shenfield	825
R20	Land south of Ingatestone	161
R21	Land adjacent to the A12, Ingatestone	57
R22	Brizes Corner Field, Kelvedon Hatch	23
R23	Land off Stocks Lane, Kelvedon Hatch	30

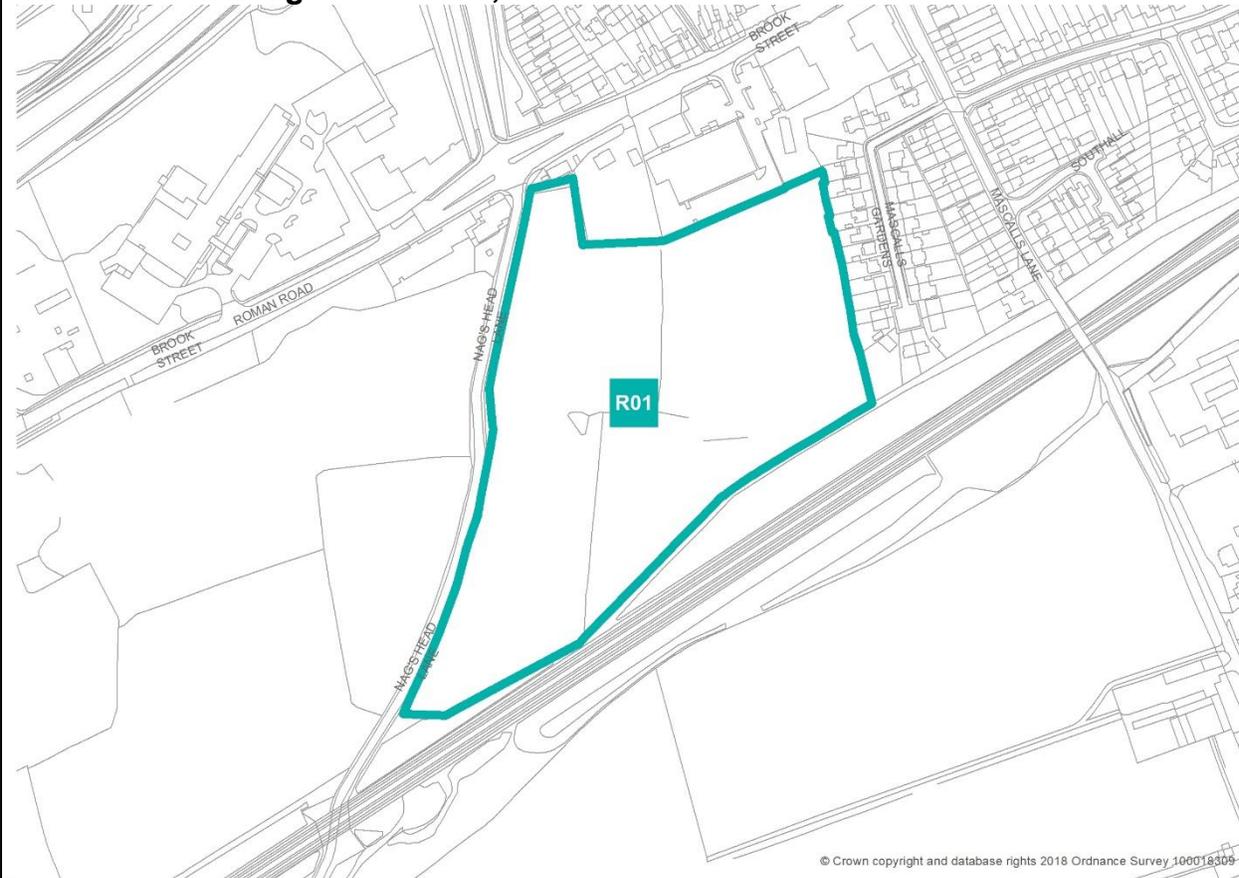
Site Policy Number	Name	Indicative number of dwellings
R24	Land at Hook End, Blackmore Road	10
R25	Land north of Woollard Way, Blackmore	40
R26	Land north of Orchard Piece, Blackmore	30
R27	West Horndon Industrial Estate	580
R28	Dunton Hills Garden Village	2,500

EMPLOYMENT SITES

Site Policy Number	Name	Area (ha)
E01	Brook Street Employment Area	0.58
E02	Brook Street Employment Area	0.67
E03	BT Centre	3.50
E04	Hubert Road Industrial Estate, Brentwood	3.78
E05	Warley Hill Business Park	2.50
E06	OCE offices, Chatham Way, Brentwood	0.45
E07	Hutton Industrial Estate, Wash Road, Hutton	10.48
E08	Land adjacent to Ingatestone by-pass (part bounded by Roman Road)	2.06
E09	Hallsford Bridge Industrial Estate	3.41
E10	Codham Hall Farm	0.61
E11	Brentwood Enterprise Park (M25 Works Site at A127/M25 junction 29)	26.00
E12	Childerditch Industrial Estate	20.64
E13	Land south of East Horndon Hall	5.50

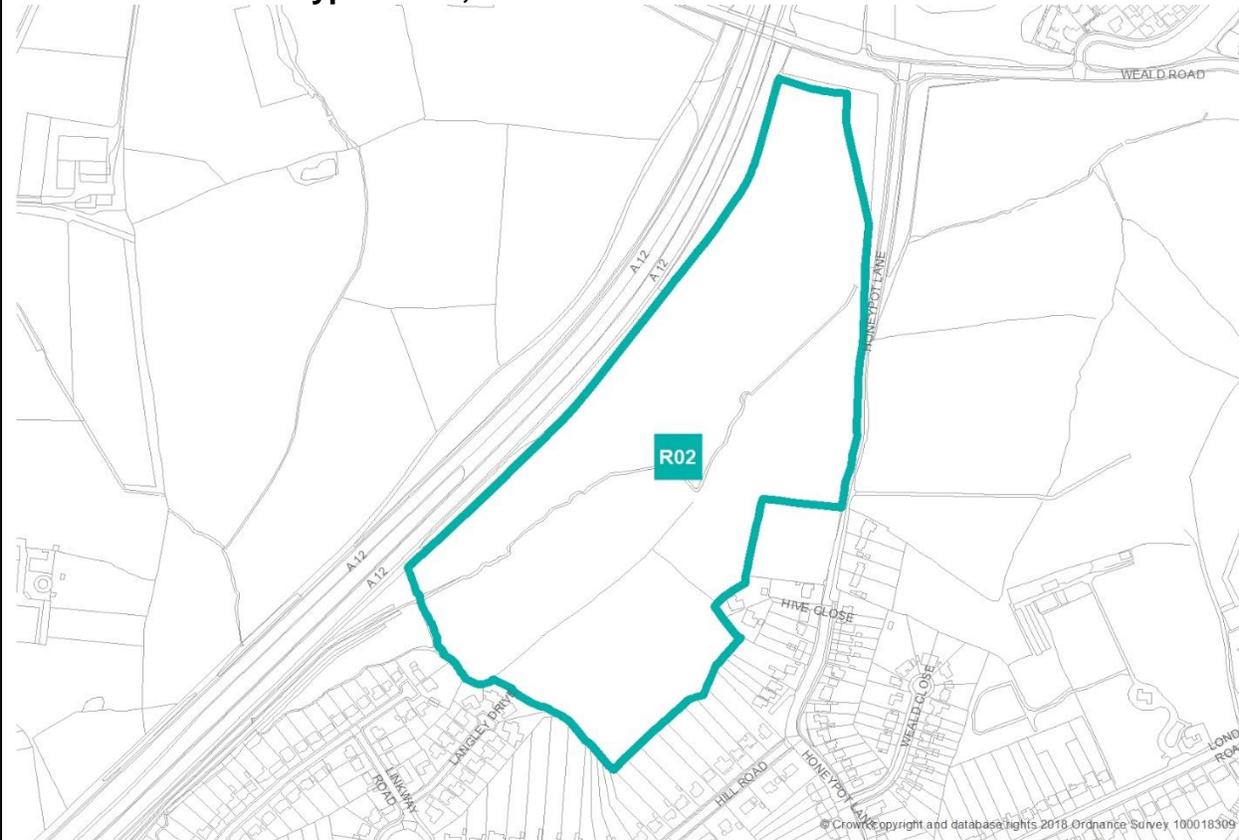
RESIDENTIAL LED SITE ALLOATIONS

R01 – Land off Nags Head Lane, Brentwood



Gross area:	5.88ha
Net developable area:	4.35ha
Indicative dwelling yield (net):	125
Site access:	Nags Head Lane
Delivery forecast:	Years 5-10

R02 – Land at Honeypot Lane, Brentwood



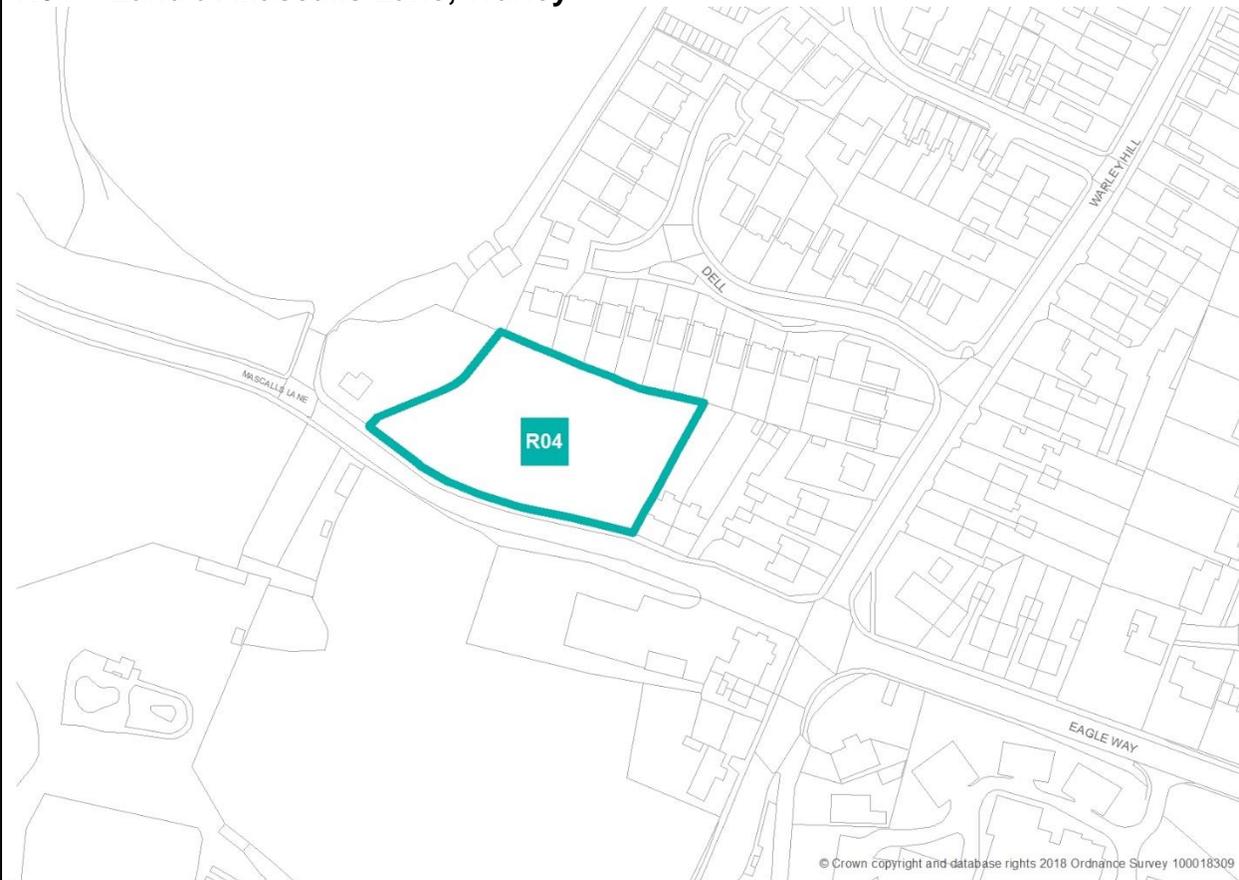
Gross area:	10.93ha
Net developable area:	7.09ha
Indicative dwelling yield (net):	200
Site access:	Honeypot Lane
Delivery forecast:	Years 5-10

R03 – Sow and Grow Nursery, Pilgrims Hatch



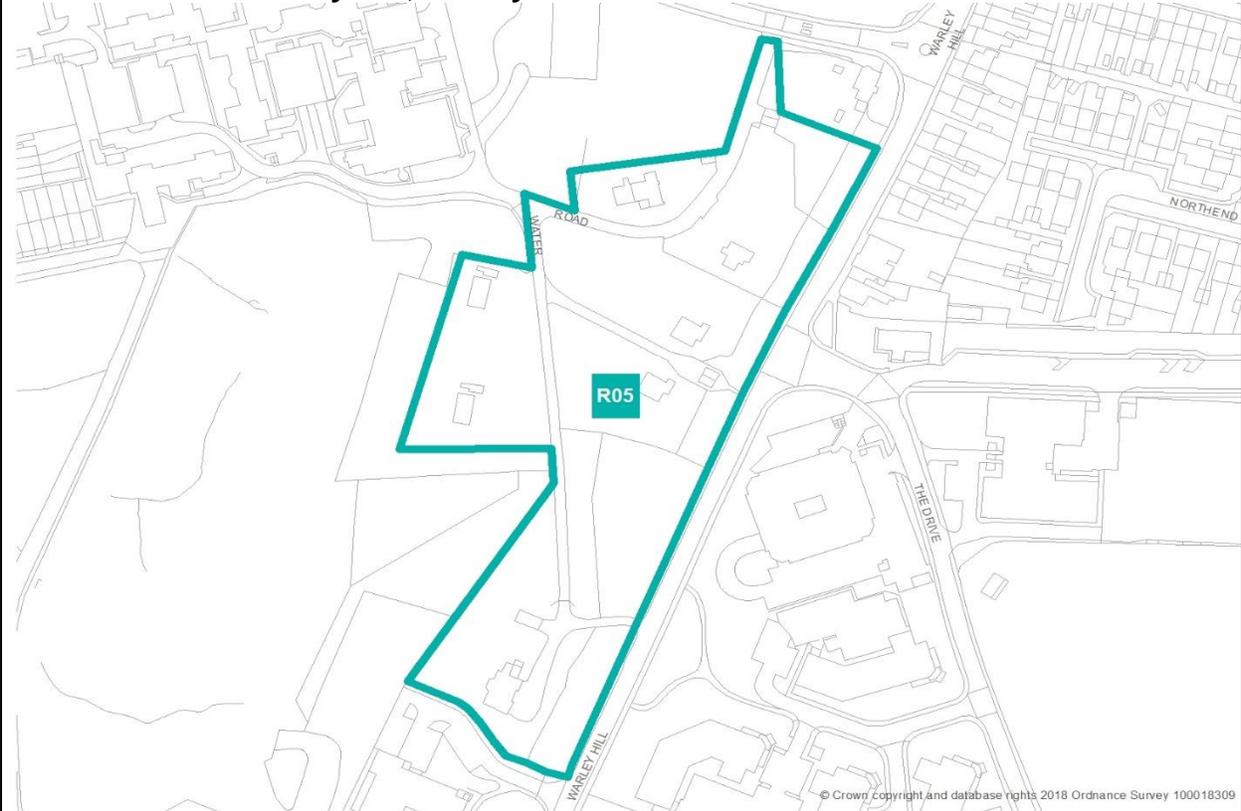
Gross area:	1.2ha
Net developable area:	1.08ha
Indicative dwelling yield (net):	38
Site access:	Ongar Road
Delivery forecast:	Years 1-5

R04 – Land at Mascalls Lane, Warley



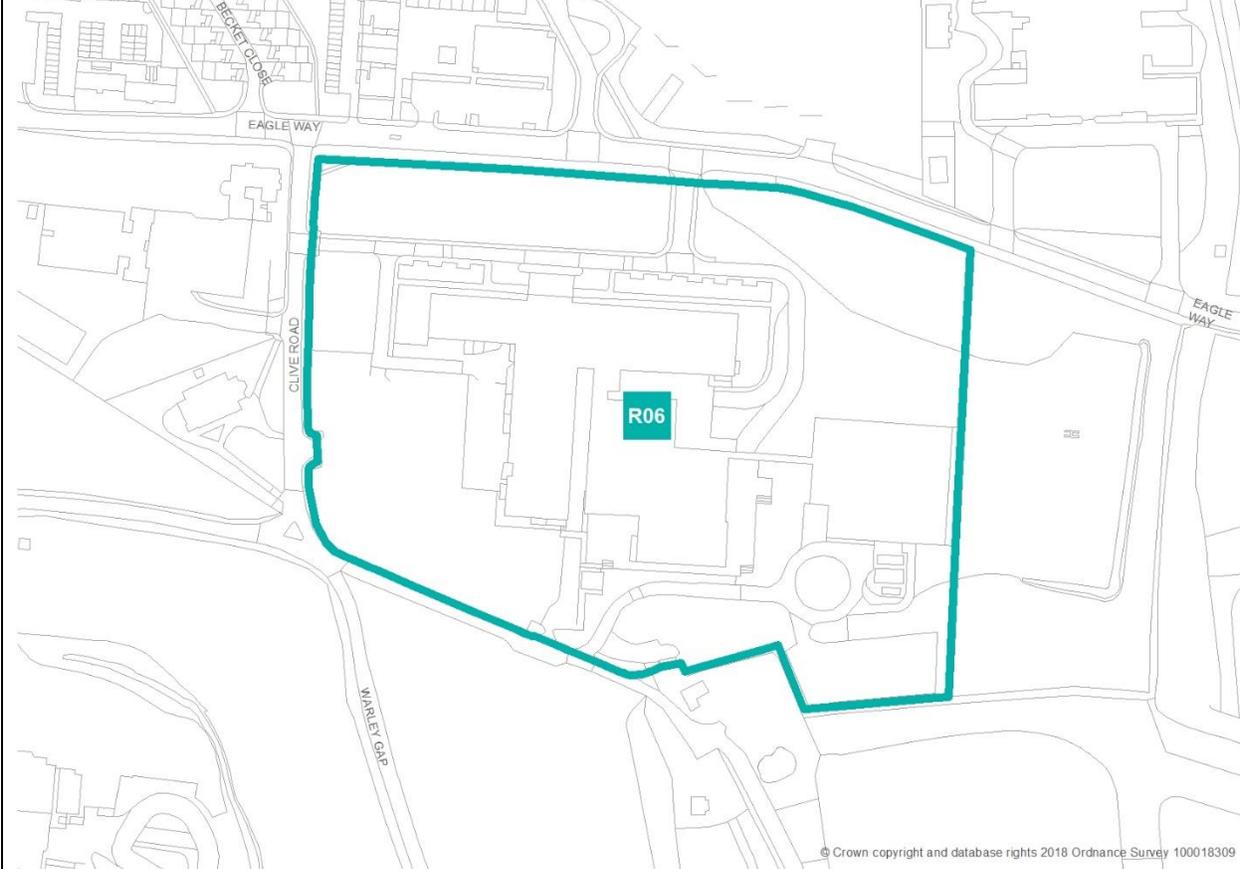
Gross area:	0.34ha
Net developable area:	0.34ha
Indicative dwelling yield (net):	9
Site access:	Mascalls Lane
Delivery forecast:	Years 1-5

R05 – Land off Warley Hill, Warley



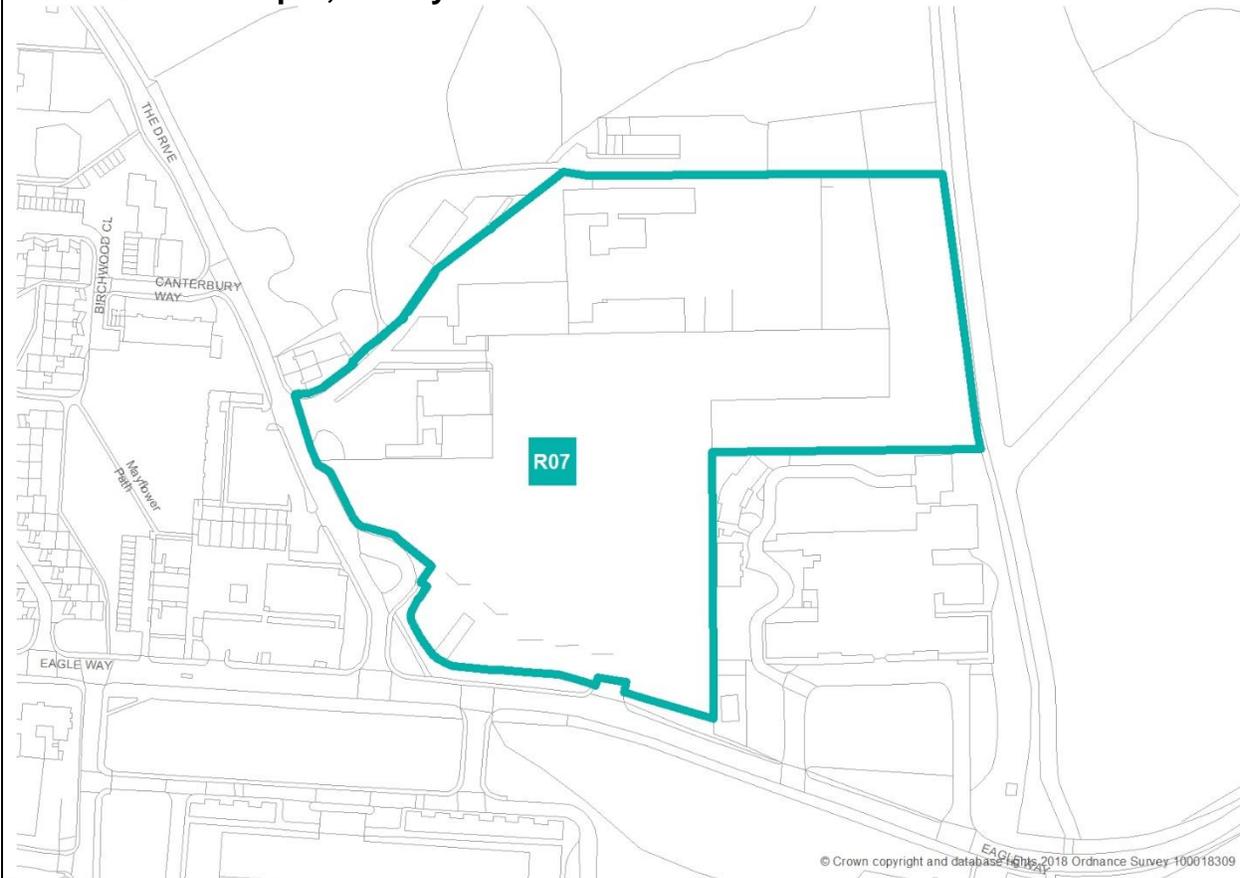
Gross area:	2.21ha
Net developable area:	1.6ha
Indicative dwelling yield (net):	43
Site access:	Pastoral Way
Delivery forecast:	Years 5-10

R06 – Ford Headquarters, Warley



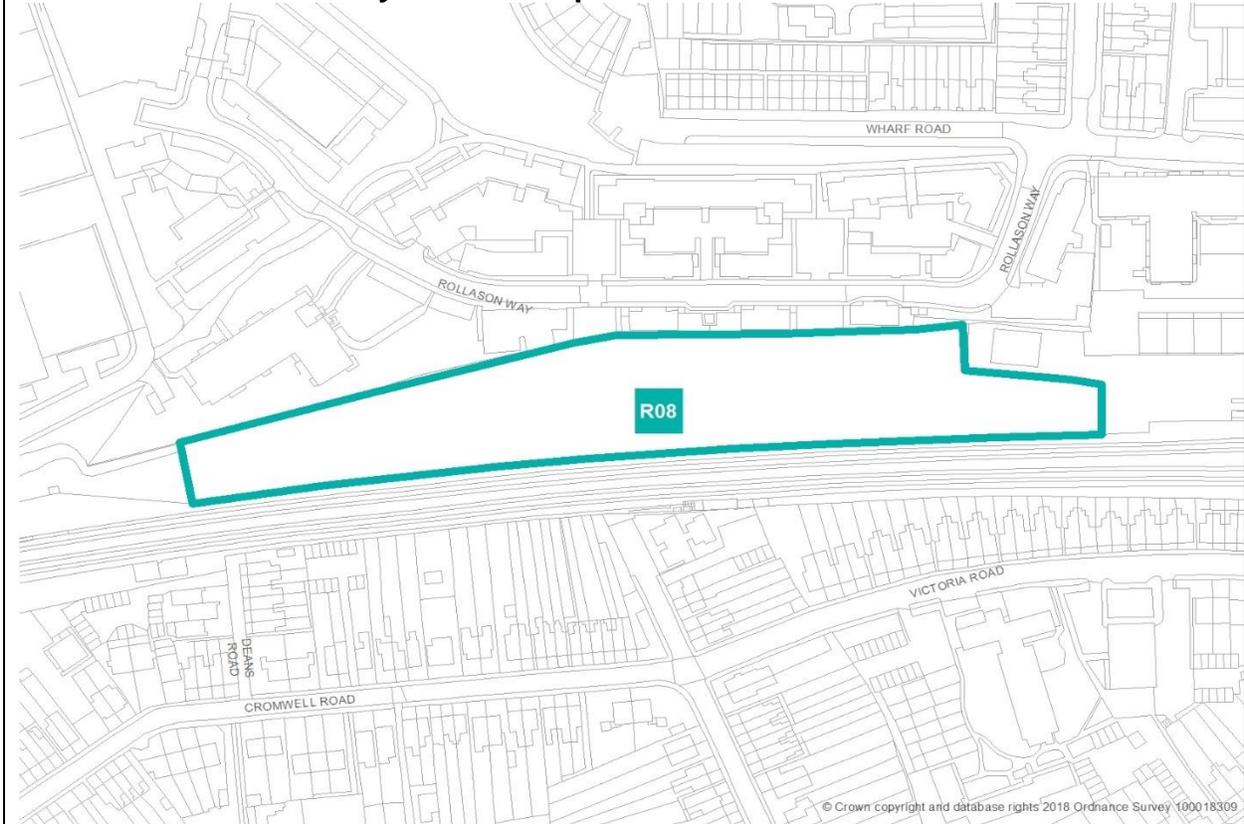
Gross area:	5.34ha
Net developable area:	4.5ha
Indicative dwelling yield (net):	473 - across sites R06 and R07
Site access:	Eagle Way
Delivery forecast:	Years 10-15

R07 – Council Depot, Warley



Gross area:	4.06ha
Net developable area:	3.5ha
Indicative dwelling yield (net):	473 - across sites R06 and R07
Site Access:	Eagle Way
Delivery Forecast:	Years 10-15

R08 – Brentwood railway station car park



Gross area:	1.07ha
Net developable area:	0.96ha
Indicative dwelling yield (net):	100
Site access:	St James Road, Brentwood
Delivery forecast:	Years 10-15

R09 – Westbury Road car park, Brentwood



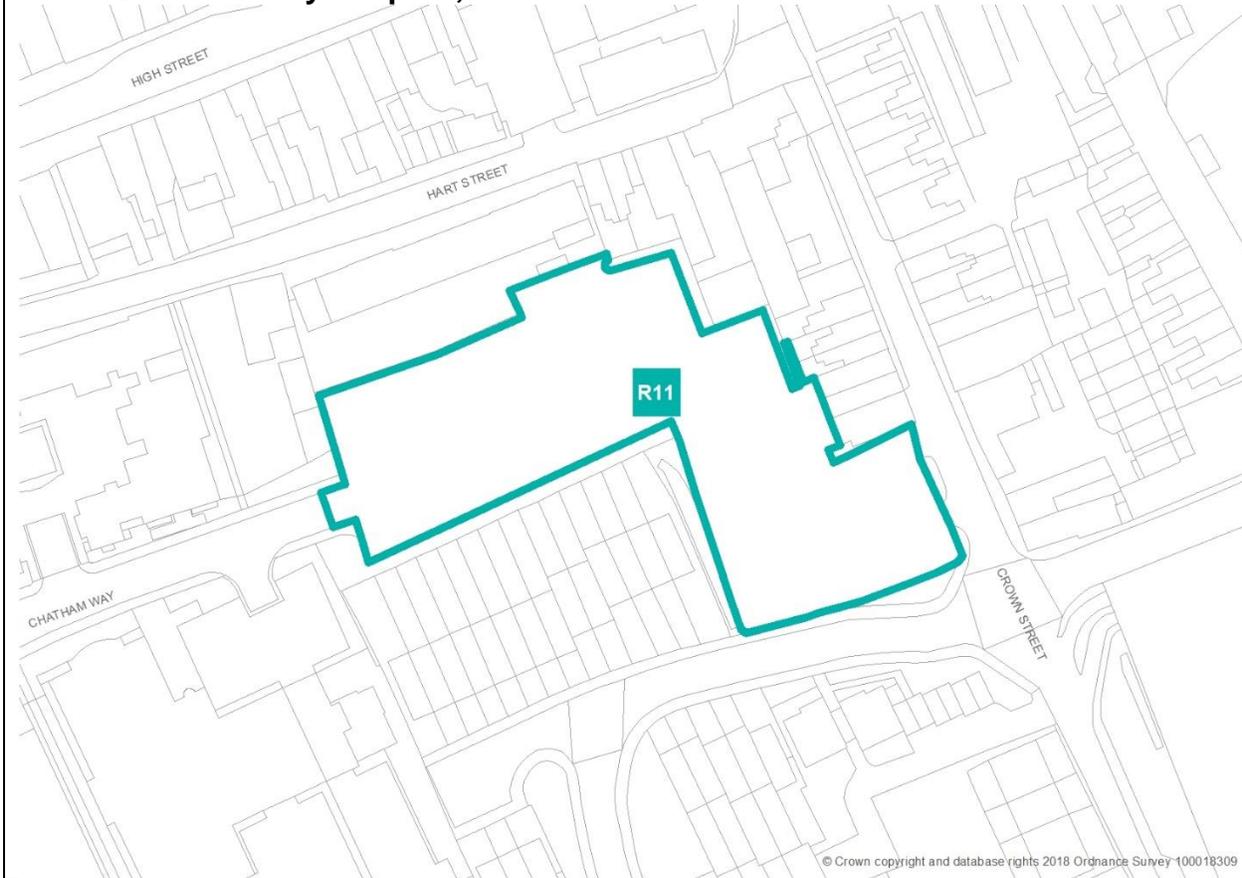
Gross area:	0.27ha
Net developable area:	0.27ha
Indicative dwelling yield (net):	45
Site access:	Westbury Road
Delivery forecast:	Years 1 - 5

R10 – Land at Hunter House, Brentwood



Gross area:	0.21ha
Net developable area:	0.21ha
Indicative dwelling yield (net):	48
Site access:	Western Road
Delivery forecast:	Years 1 - 5

R11 – Chatham Way car park, Brentwood



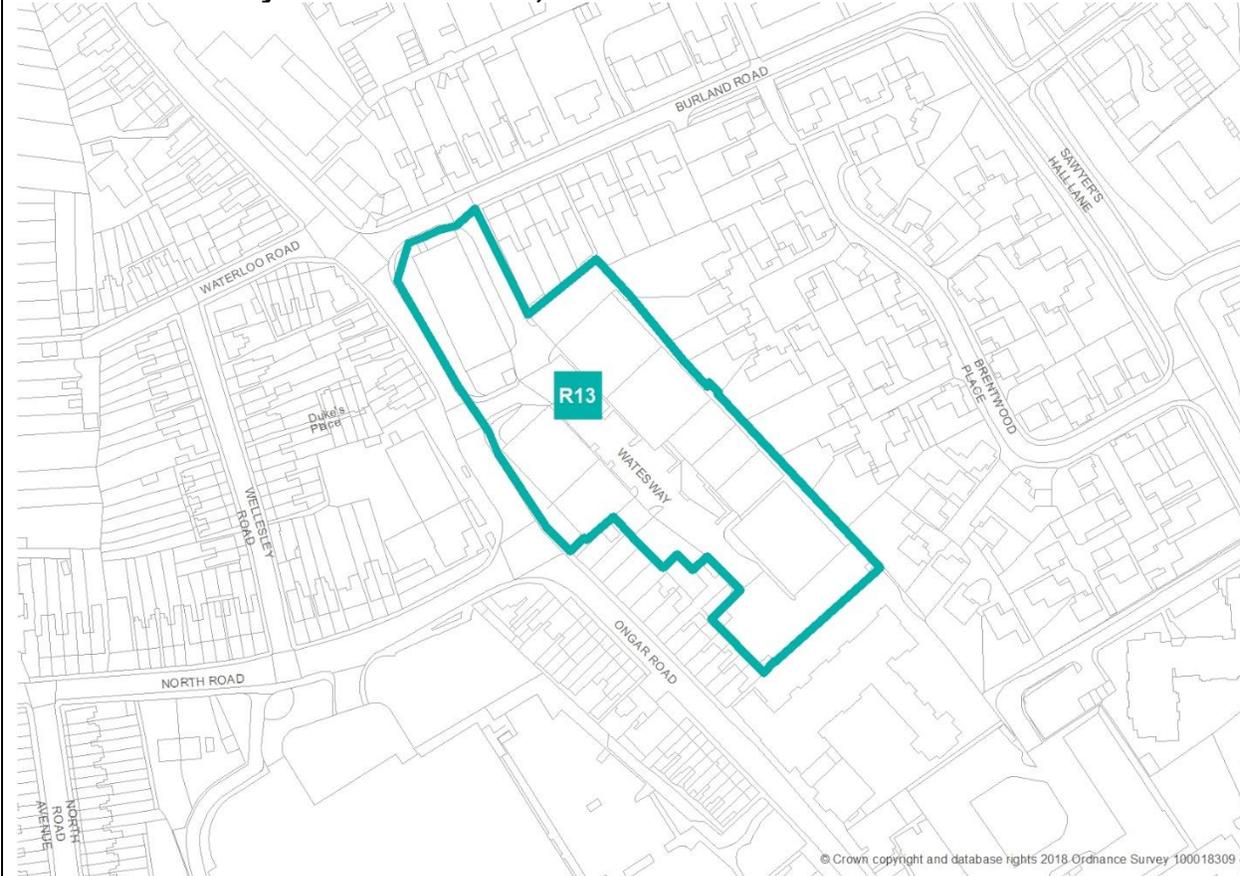
Gross area:	0.33ha
Net developable area:	0.33ha
Indicative dwelling yield (net):	31
Site access:	Chatham Way
Delivery forecast:	Years 1 - 5

R12 – William Hunter Way car park, Brentwood



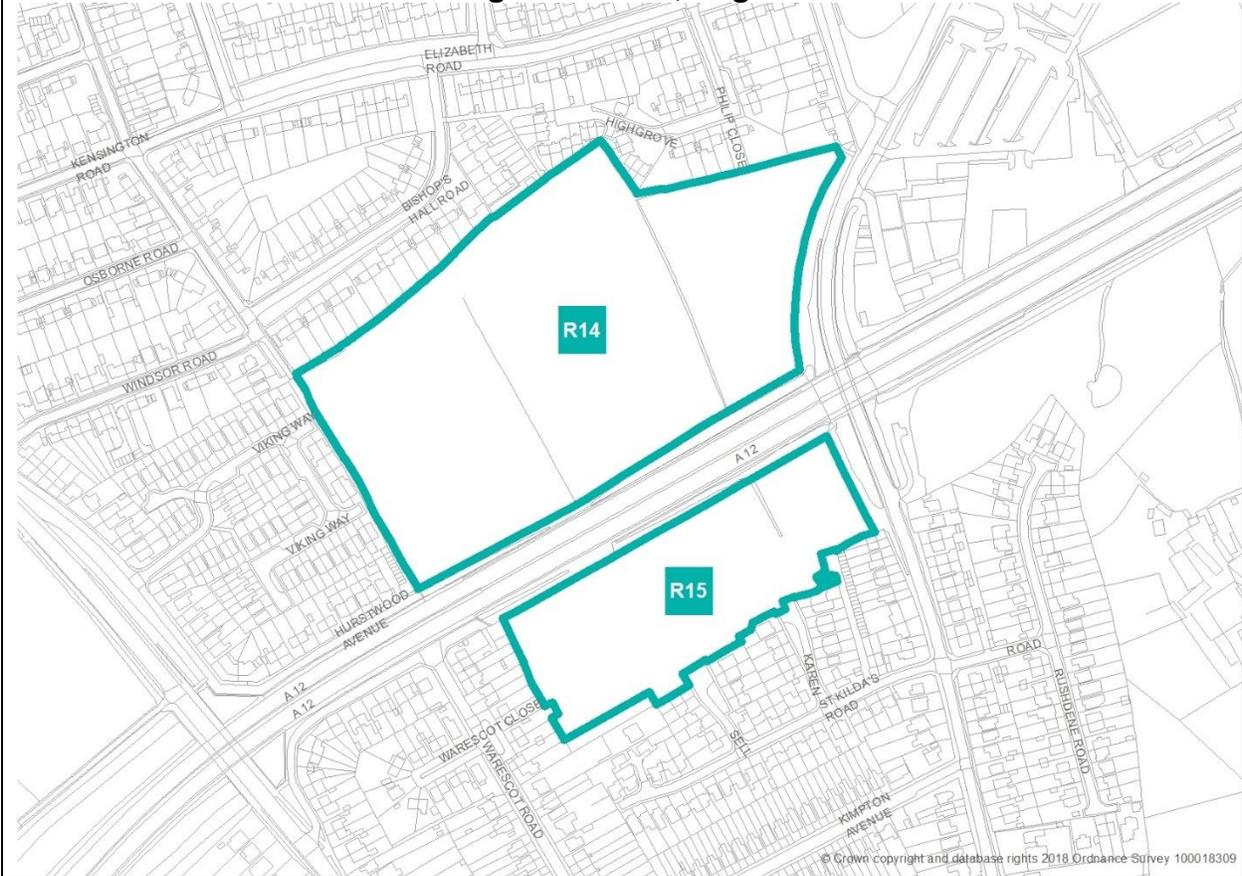
Gross area:	1.3ha
Net developable area:	1.22ha
Indicative dwelling yield (net):	300 (179-300 range)
Site access:	William Hunter Way
Delivery forecast:	Years 5-10

R13 – Wates Way Industrial Estate, Brentwood



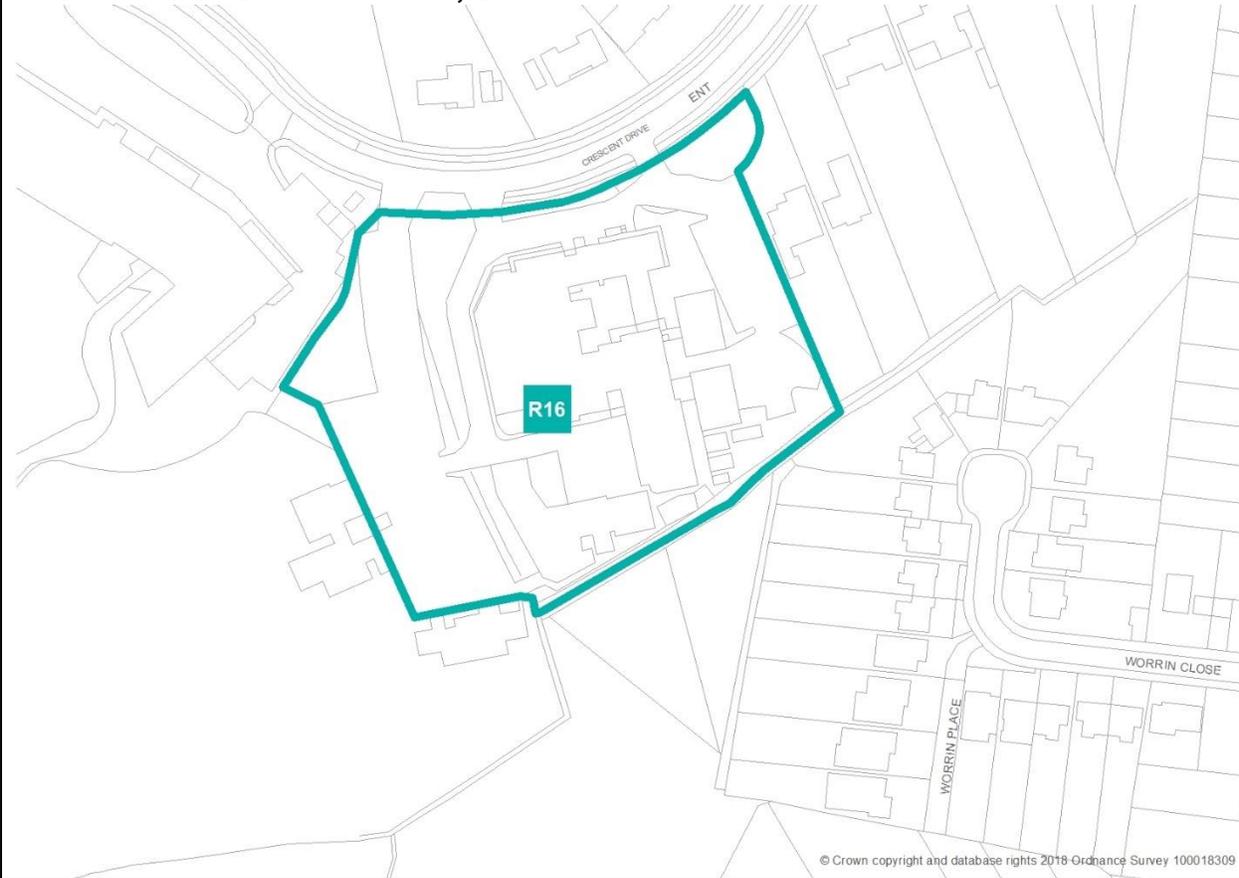
Gross area:	0.99ha
Net developable area:	0.89ha
Indicative dwelling yield (net):	80
Site access:	Ongar Road (A128)
Delivery forecast:	Years 5-10

R14 and R15 – Land off Doddinghurst Road, Pilgrims Hatch and Brentwood



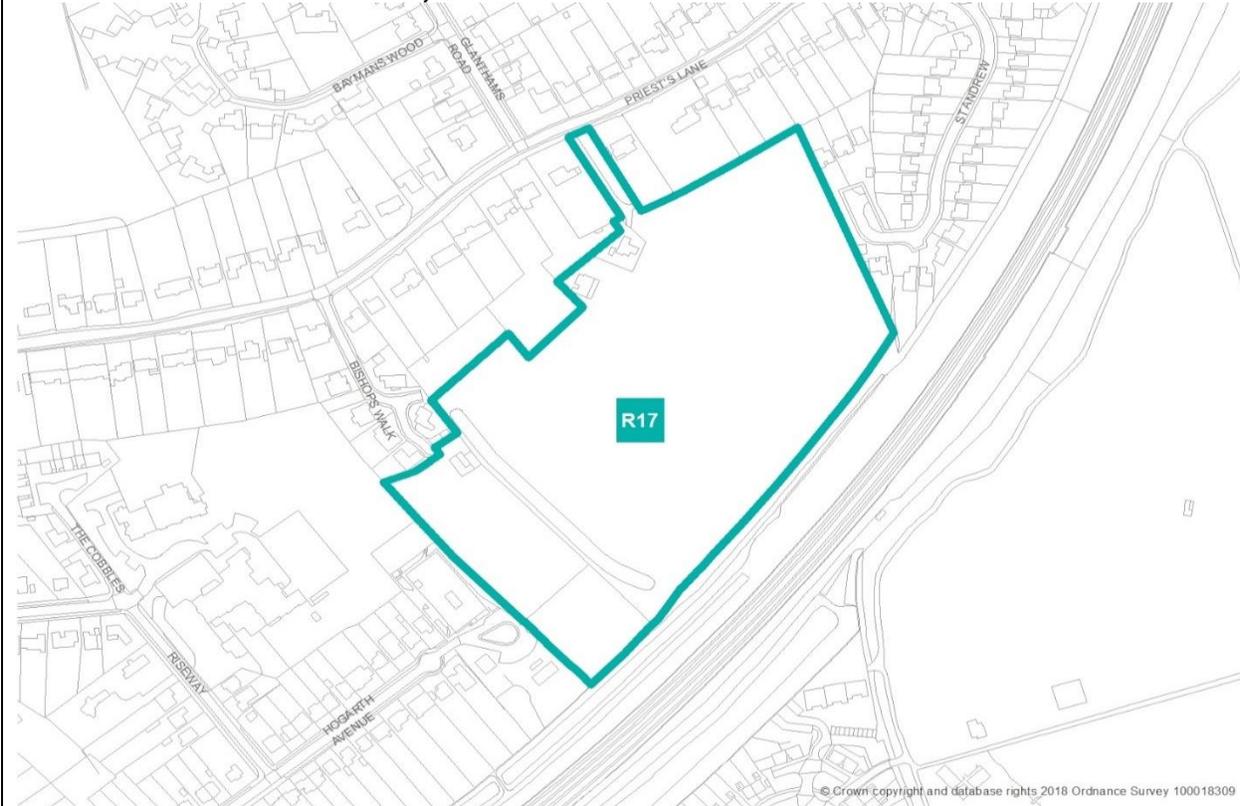
Gross area:	8.19ha
Net developable area:	6.14ha
Indicative dwelling yield (net):	200
Site access:	Doddinghurst Road and/or Russell Close and Karen Close
Delivery forecast:	Years 5-10

R16 – Land at Crescent Drive, Shenfield



Gross area:	1.54ha
Net developable area:	1.39ha
Indicative dwelling yield (net):	55
Site access:	Crescent Drive
Delivery forecast:	Years 1-5

R17 – Land at Priests Lane, Shenfield



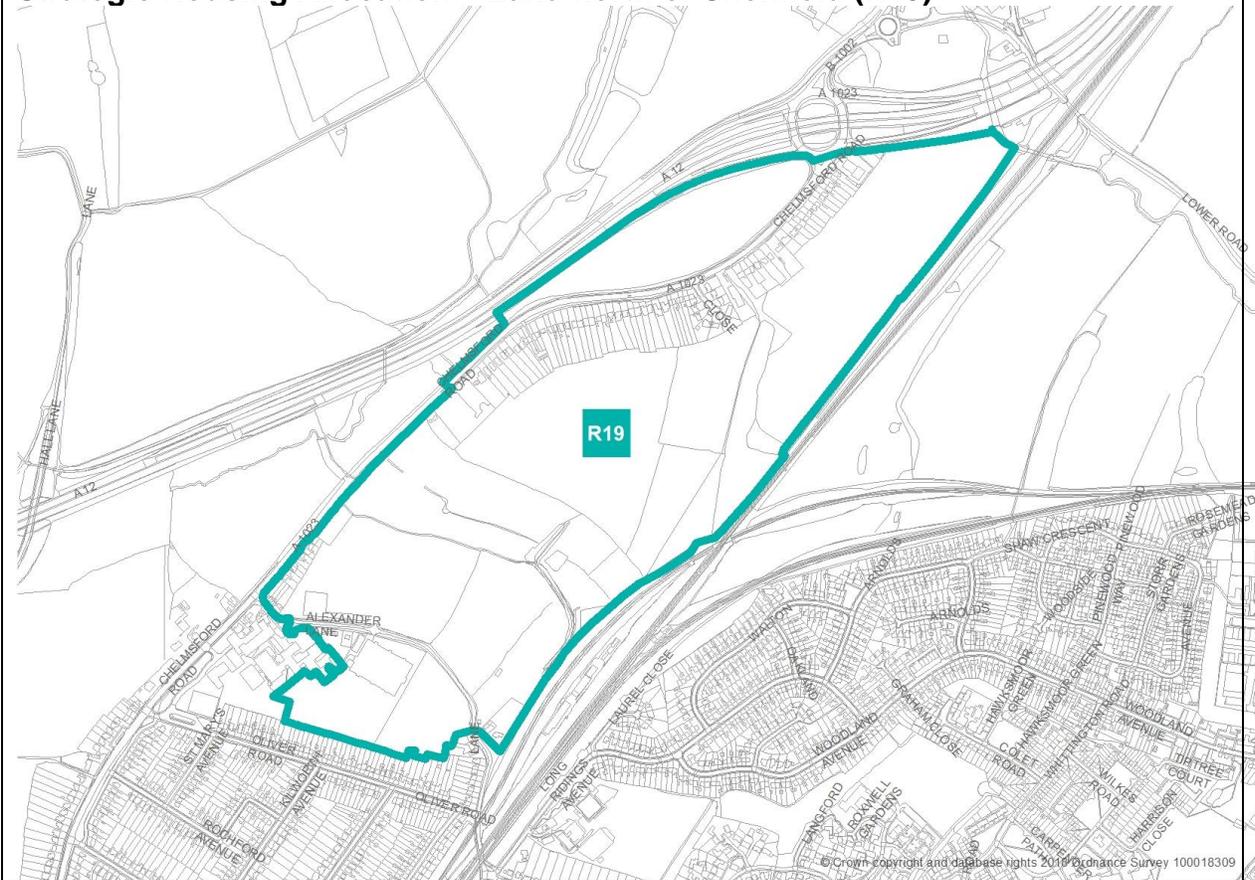
Gross area:	5.4ha
Net developable area:	3.84ha
Indicative dwelling yield (net):	95
Site access:	Primary access Priests Lane Secondary access via Bishops Walk
Delivery forecast:	Years 1-5

R18 – The Eagle and Child Public House, Shenfield



Gross area:	0.24ha
Net developable area:	0.24ha
Indicative dwelling yield (net):	20
Site access:	Chelmsford Road
Delivery forecast:	Years 1 - 5

Strategic Housing Allocation – Land north of Shenfield (R19)



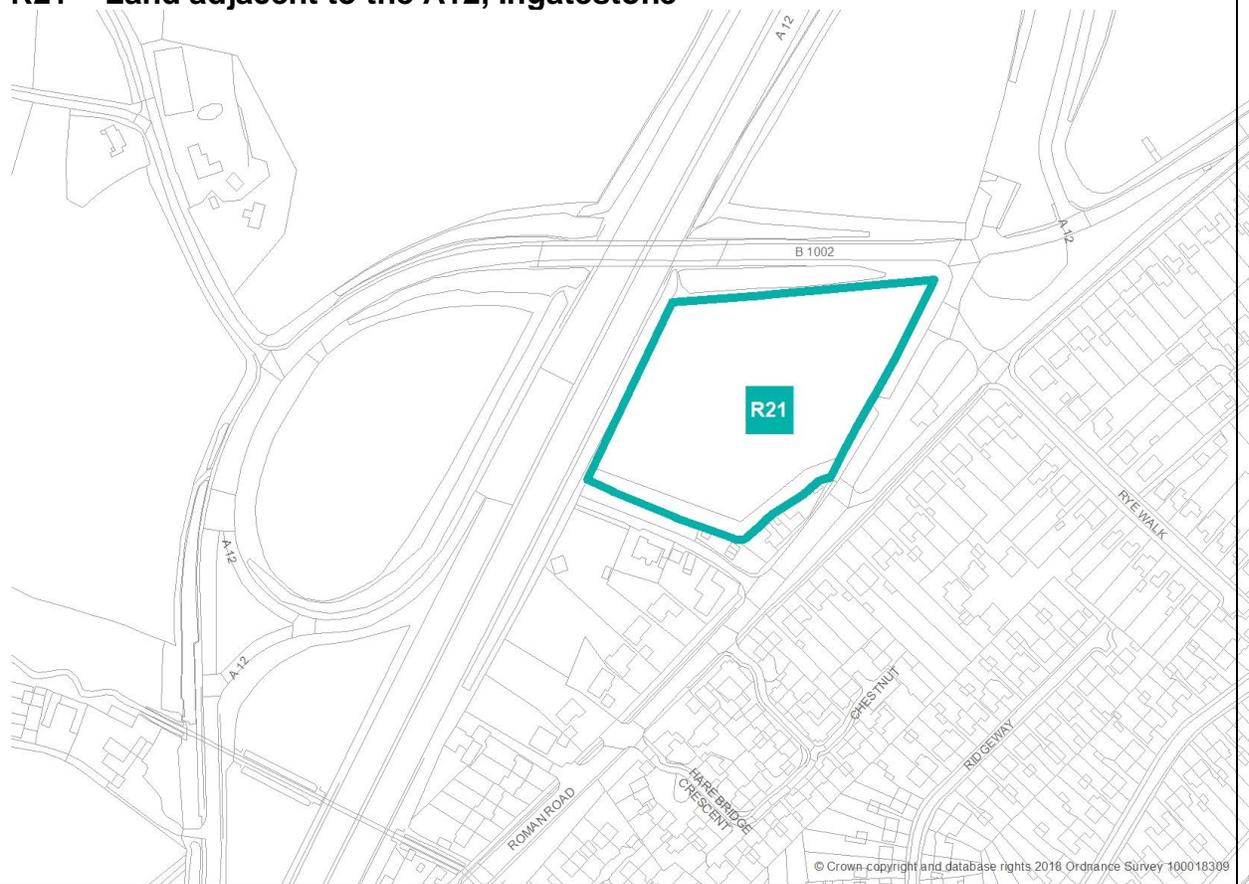
Gross area:	58.2ha
Net developable area:	28.2ha
Indicative dwelling yield (net):	825
Site access:	Chelmsford Road (A1023)
Delivery forecast:	Years 5-15

R20 – Land south of Ingatestone



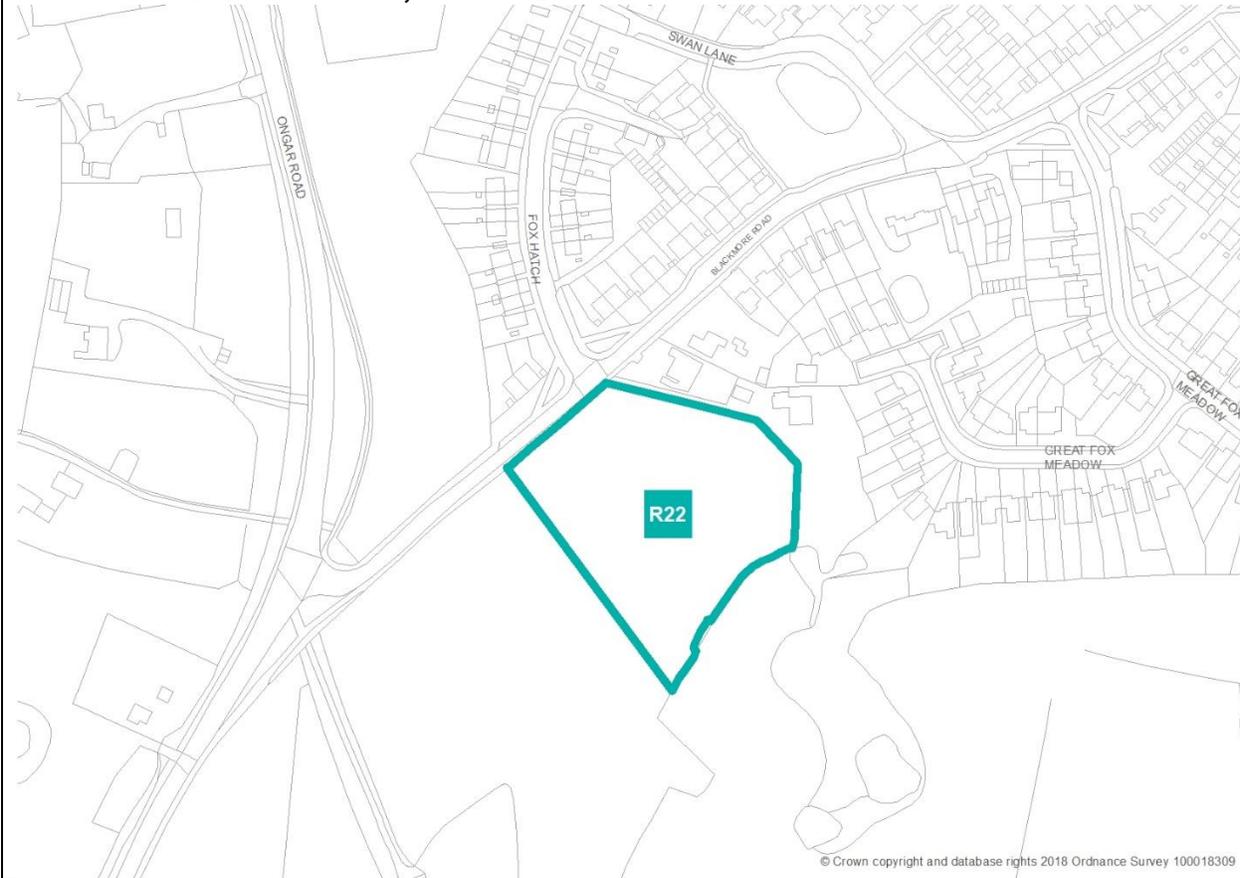
Gross area:	6.04ha
Net developable area:	4.74ha
Indicative dwelling yield (net):	120
Site access:	Roman Road
Delivery forecast:	Years 1-5

R21 – Land adjacent to the A12, Ingatestone



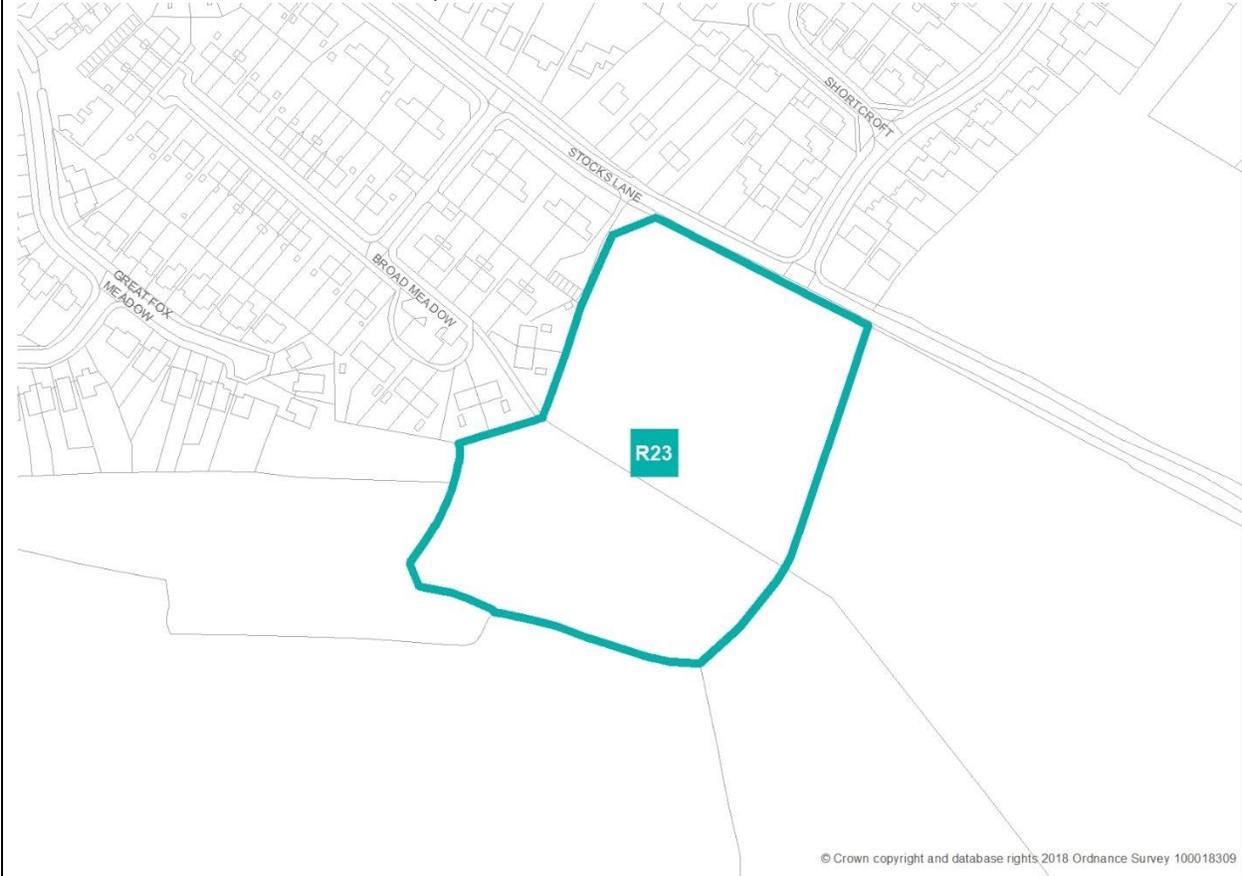
Gross area:	1.39ha
Net developable area:	1.25ha
Indicative dwelling yield (net):	57
Site access:	Roman Road
Delivery forecast:	Years 1-5

R22 – Brizes Corner Field, Blackmore



Gross area:	0.87ha
Net developable area:	0.78ha
Indicative dwelling yield (net):	23
Site access:	Blackmore Road
Delivery forecast:	Years 1-5

R23 – Land off Stocks Lane, Kelvedon Hatch



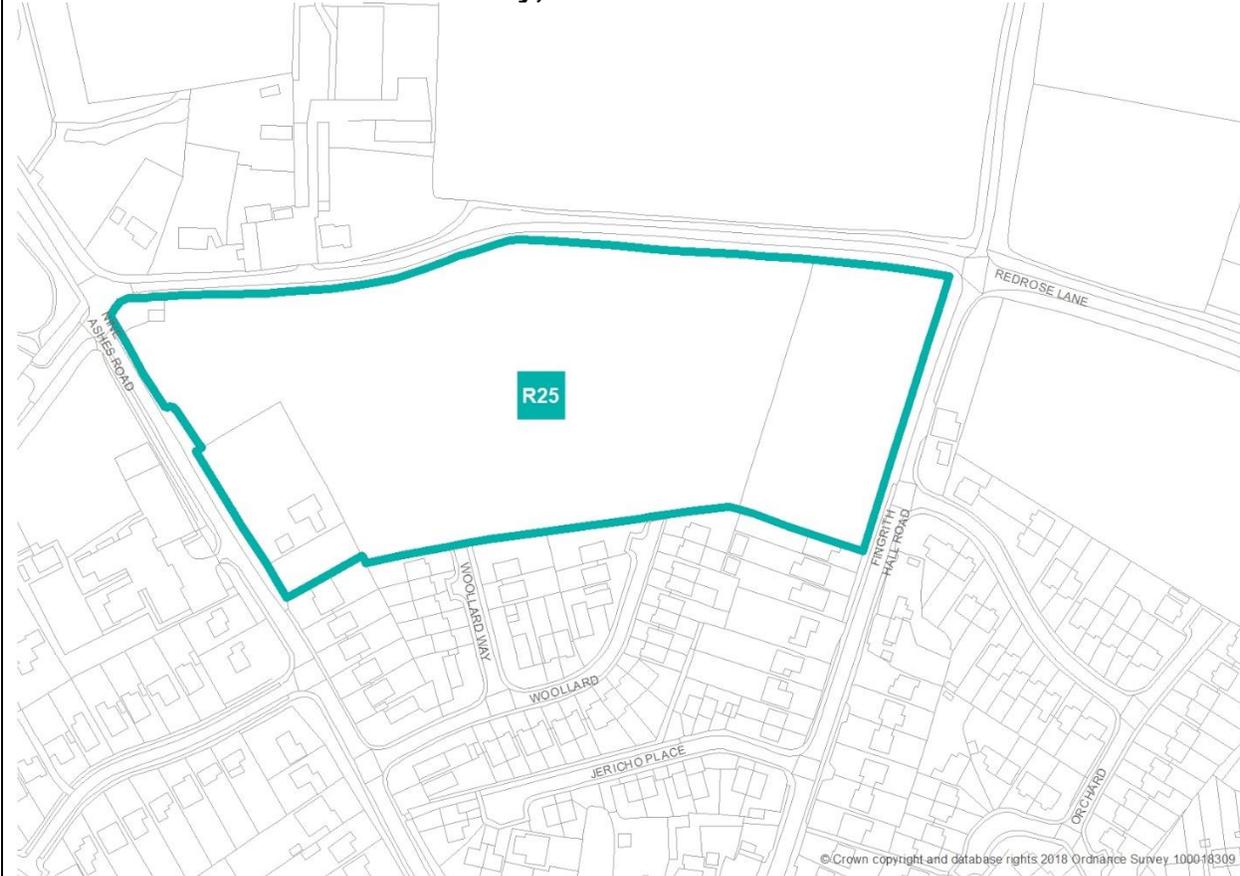
Gross area:	2.15ha
Net developable area:	1.61ha
Indicative dwelling yield (net):	30
Site access:	Stocks Lane
Delivery forecast:	Years 5-10

R24 – Land at Hook End, Blackmore Road



Gross area:	0.60ha
Net developable area:	0.30ha
Indicative dwelling yield (net):	10
Site access:	Blackmore Road
Delivery forecast:	Years 1-5

R25 – Land north of Woollard Way, Blackmore



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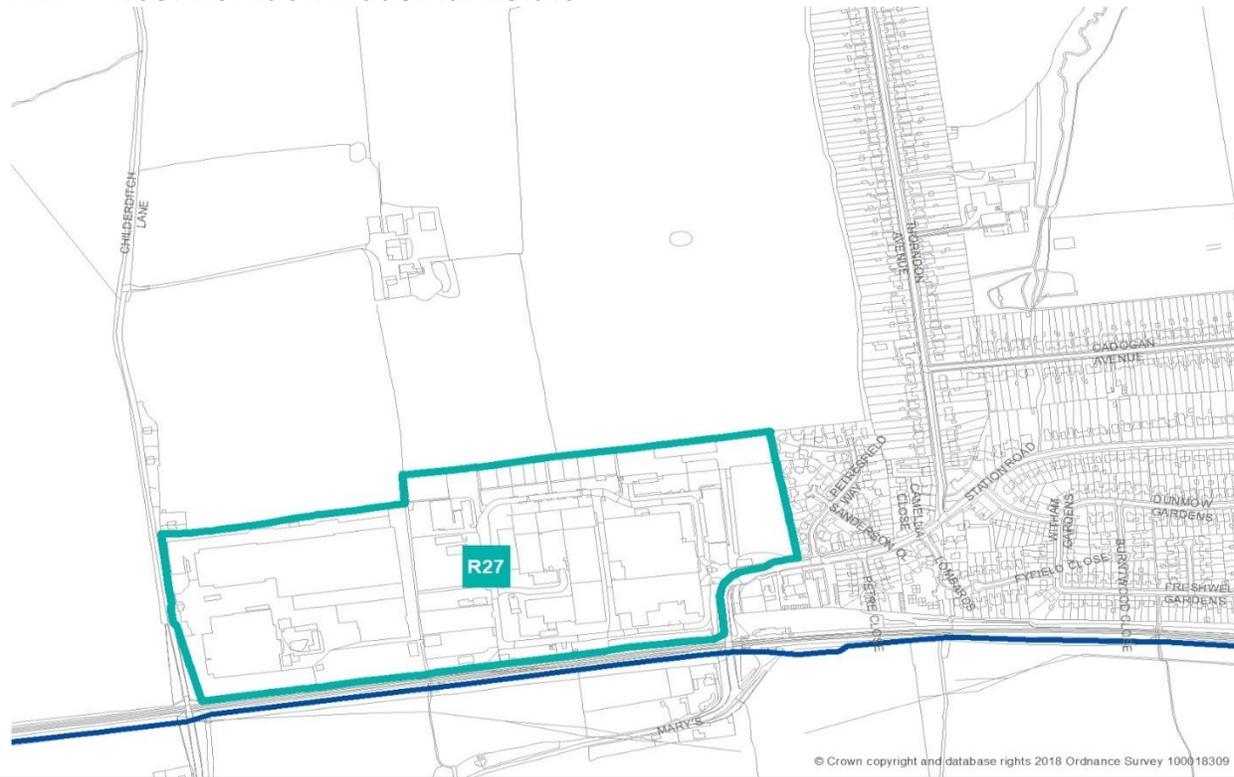
Gross area:	3.3ha
Net developable area:	2.48ha
Indicative dwelling yield (net):	56
Site access:	Redrose Lane
Delivery forecast:	Years 5-10

R26 – Land north of Orchard Piece, Blackmore



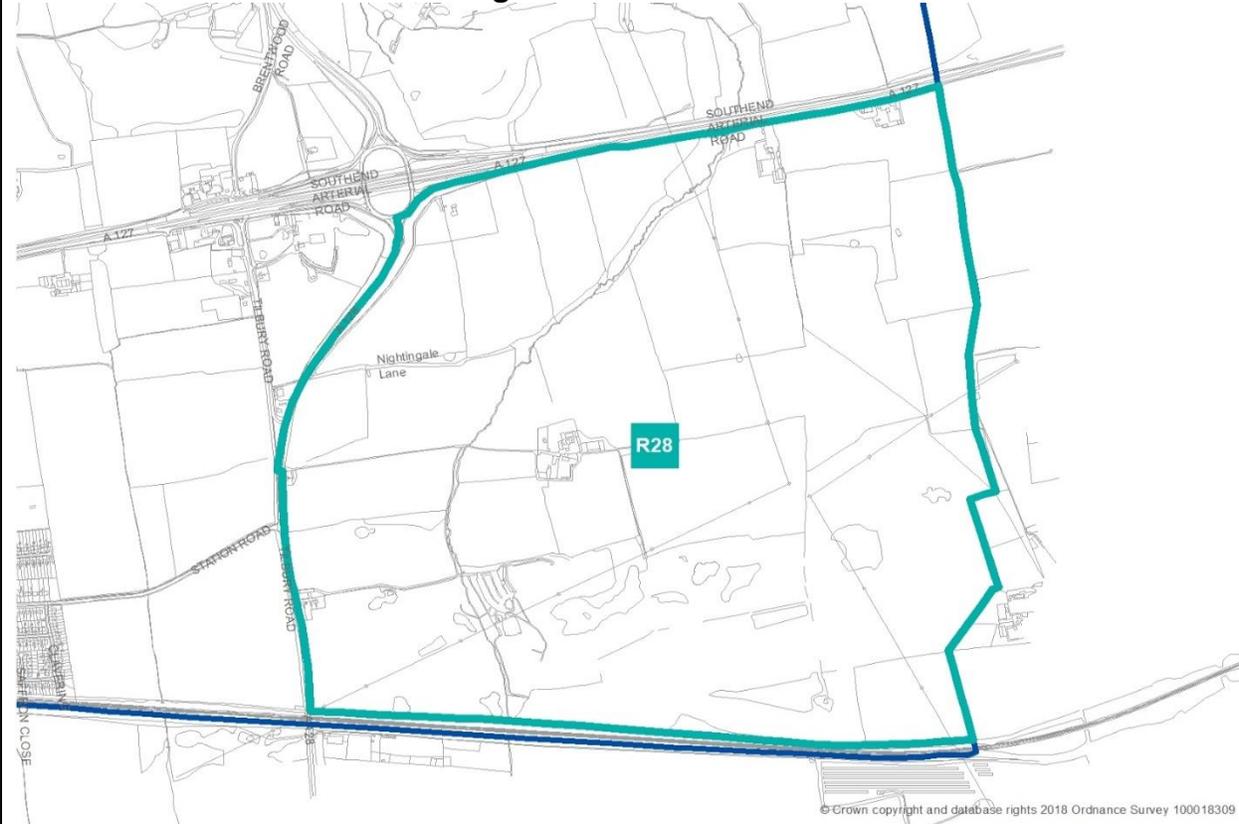
Gross area:	1.69ha
Net developable area:	1.52ha
Indicative dwelling yield (net):	30
Site access:	Redrose Lane
Delivery forecast:	Years 1-5

R27 – West Horndon Industrial Estate



Gross area:	17.06ha
Net developable area:	10.23ha
Indicative dwelling yield (net):	580
Site access:	Station Road and Childerditch Lane
Delivery forecast:	Years 5-10

R28 – Dunton Hills Garden Village



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Gross area:	259.5ha
Net developable area:	128.5ha
Indicative dwelling yield (net):	2,500 (within plan period) Approximately 4,000 (Total)
Site access:	Tilbury Road (A128)
Delivery forecast:	Years 5-15

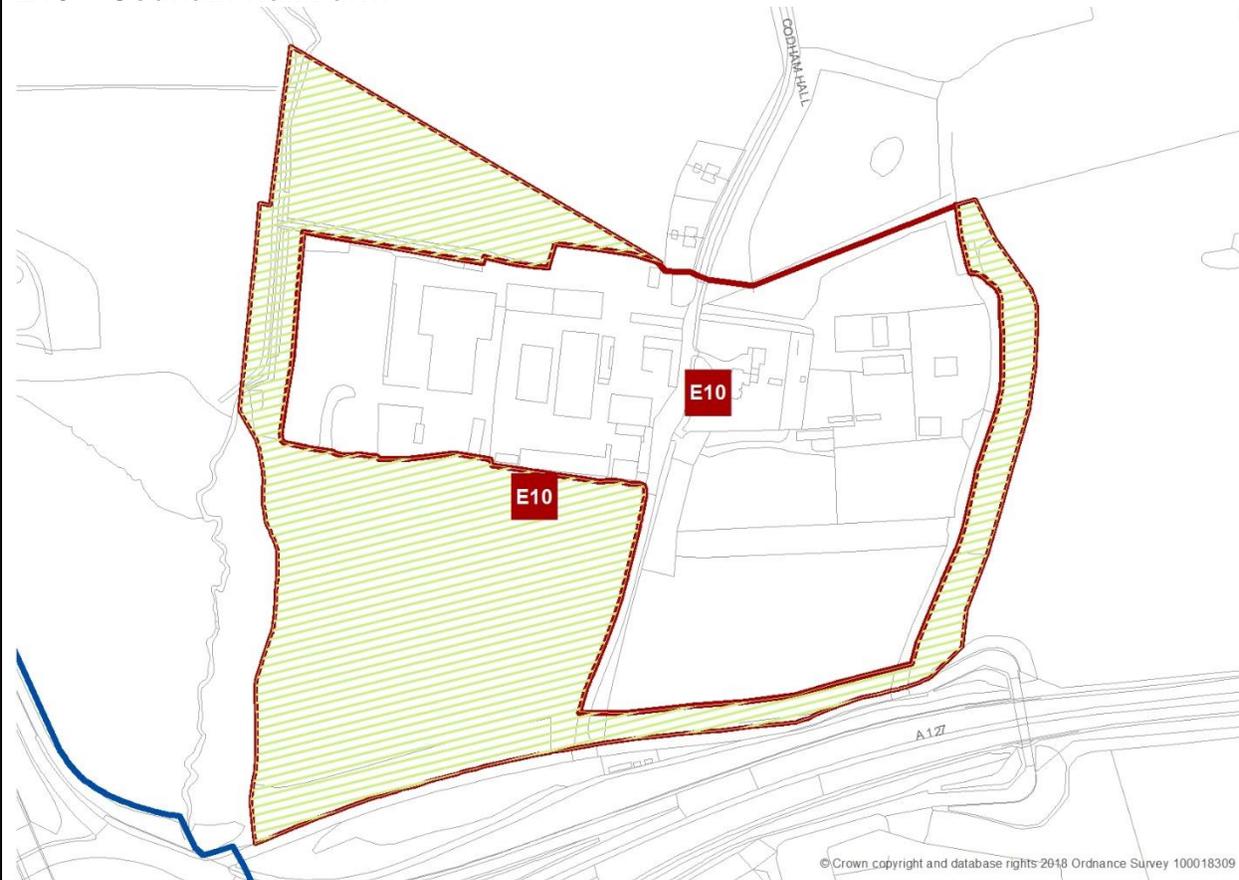
EMPLOYMENT SITES

E08 – Land Adjacent to A12 and Slip Road, Ingatestone



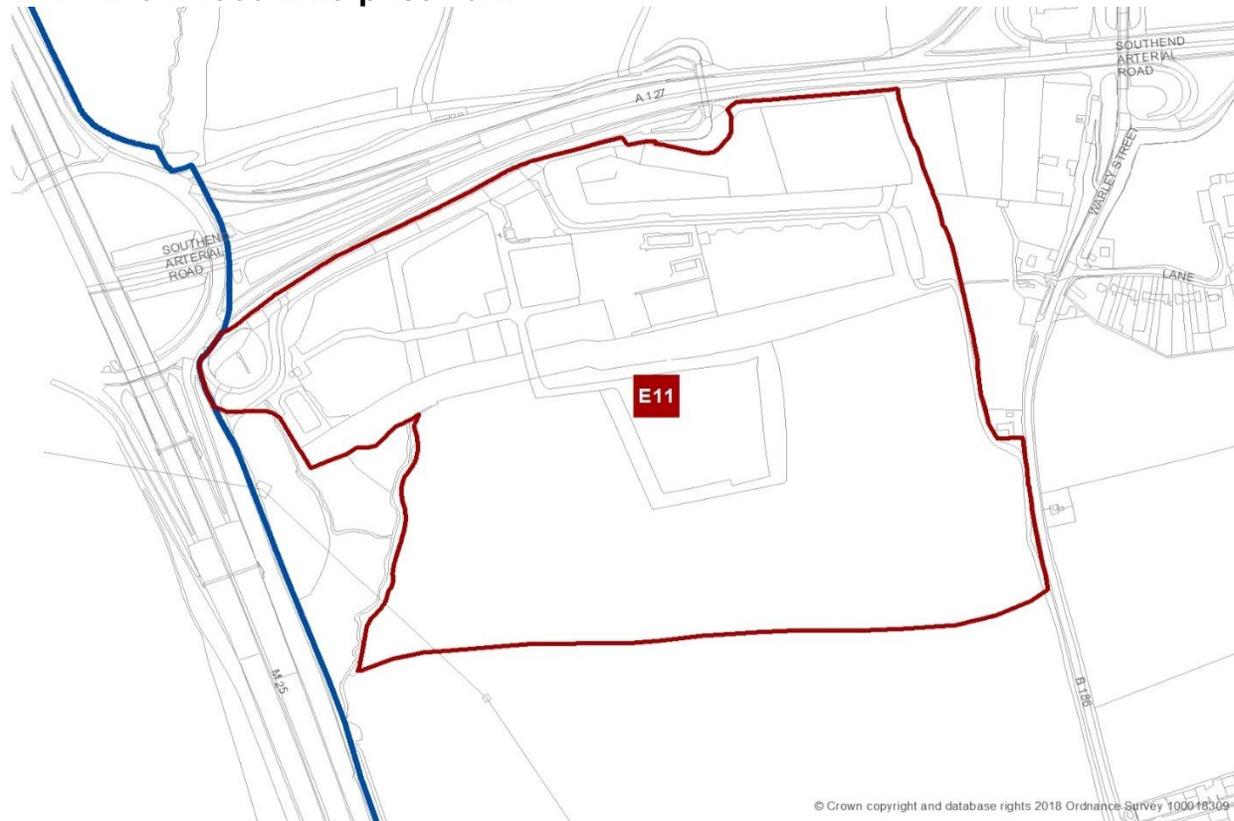
Gross area:	2.06ha
Developable area:	1.6ha
Site access:	Roman Road (B1002)
Delivery forecast:	Years 1-5

E10 – Codham Hall Farm



Gross area:	17.6ha (comprising 9.6ha employment and 8.0ha landscaping)
Net additional area:	0.61ha (currently undeveloped land)
Site access:	M25 Junction 29
Delivery forecast:	Years 1-5

E11 – Brentwood Enterprise Park



Gross area:	35.5ha
Developable area:	26.0ha
Site access:	M25 Junction 29 and/or Warley Street (B186)
Delivery forecast:	Years 5-15

E12 – Childerditch Industrial Estate



Gross area:	20.64ha
Developable area:	20.64ha
Site access:	A127 (eastbound carriageway) via Childerditch Hall Lane.
Delivery forecast:	Years 1-10

E13 – East Horndon Hall



Gross area:	12.9ha
Developable area:	5.5ha
Site access:	Tilbury Road (west)
Delivery forecast:	Years 1-5

Appendix 3 - Monitoring Framework

This section Deals with how the Council will monitor the Local Plan’s success in meeting the challenges and opportunities set out in the planning policies to ensure effective delivery of the Plan.

This will be done through the monitoring of the indicators set out in the tables below on an annual basis which will be published through the Authorities Monitoring Report (AMR). The AMR will be used to report the performance of the Local Plan as well as recommending any actions required to ensure the delivery of the Plan.

Table 1: Monitoring Framework. Broad parameters for monitoring policy implementation.

Plan Policy	Indicators	Delivery Mechanism	Target	Actions
Chapter 4 - Managing Sustainable Growth				
SP01 Sustainable Development	Covered by other indicators within the monitoring framework		Target not required	
SP02 managing Growth	Covered by other indicators within the monitoring framework		Target not required	
SP03 Health Impact Assessments	Covered by other indicators within the monitoring framework		Target not required	
SP04 Developer Contributions	Covered by other indicators within the monitoring framework		Target not required	
SP06 Construction Management	Covered by other indicators within the monitoring framework		Target not required	
SP06 Effective Delivery of Development	Covered by other indicators within the monitoring framework		Target not required	
Chapter 5 - Resilient Built Environment				
BE01 Future Proofing	Quality of design of new development	Planning permission	All permissions granted for new development are in accordance with policy	
BE02 Sustainable Construction	Sustainability of design of new development	Planning permission	All permissions granted for new development are	

Plan Policy	Indicators	Delivery Mechanism	Target	Actions
and Resource Efficiency			in accordance with policy	
BE03 Carbon Reduction, Renewable Energy and Water Efficiency	Sustainability of design of new development – in line with policy requirement	Planning permission	All permissions granted for new development are in accordance with policy	
BE04 Establishing Low Carbon and renewable Energy Infrastructure Network	Sustainability of design of new development – in line with policy requirement	Planning permission	All permissions granted for new development are in accordance with policy	
BE05 Assessing Energy infrastructure	Sustainability of design of new development – in line with policy requirement	Planning permission	All permissions granted for new development are in accordance with policy	
BE06 Improving energy efficiency in exiting dwellings	Sustainability of design of new development – in line with policy requirement	Planning permission	All permissions granted for new development are in accordance with policy	
BE07 Managing Heat Risk	Sustainability of design of new development – in line with policy requirement	Planning permission	All permissions granted for new development are in accordance with policy	
BE08 Sustainable Drainage	Sustainability of design of new development and impact on flooding	Planning permission	All permissions granted for new development are in accordance with policy	
BE09 Communication Infrastructure	Number of applications for new Communication infrastructure	Planning permission	Target not required	
BE10 Connecting new Development to Digital Infrastructure	Number of new developments failing to connect	Planning permission	All new development to connect to digital infrastructure	

Plan Policy	Indicators	Delivery Mechanism	Target	Actions
BE11 Strategic Transport Infrastructure	Provision of key infrastructure	Planning permissions and masterplanning	AMR IDP	Progress and milestones in accordance with development as agreed in planning permissions in accordance with IDP
BE 12 car-Limited Development	Provision of key infrastructure	Planning permissions and masterplanning	AMR IDP	Progress and milestones in accordance with development as agreed in planning permissions in accordance with IDP
BE13 Sustainable Means of Travel and Walkable Streets	Provision of key infrastructure	Planning permissions and masterplanning	AMR IDP	Progress and milestones in accordance with development as agreed in planning permissions in accordance with IDP
BE14 Sustainable Passenger Transport	Provision of key infrastructure	Planning permissions and masterplanning	AMR IDP	Progress and milestones in accordance with development as agreed in planning permissions in accordance with IDP
BE15 Electric and Low Emission Vehicle	Provision of key infrastructure	Planning permissions and masterplanning	AMR IDP	Progress and milestones in accordance with development as agreed in planning permissions in accordance with IDP
BE16 Mitigating the Transport Impacts of Development	Provision of mitigation methodologies	Planning permissions and masterplanning	AMR IDP	Progress and milestones in accordance with development as agreed in planning permissions in accordance with IDP
BE17 Parking Standards	Level and type of parking provision for new developments	Planning permission and masterplanning	In line with ECC parking standards	
Policy B1: Housing Mix	Number of new dwellings achieving M4(2) accessible and adaptable dwellings of the Building Regulations 2015	AMR	On developments of 10 or more dwellings all to meet M4(2) accessible	

Plan Policy	Indicators	Delivery Mechanism	Target	Actions
	<p>Number of new dwellings achieving M4(3) wheelchair adaptable dwellings of the Building Regulations 2015</p> <p>Number of new dwellings achieving M4(3) wheelchair accessible dwellings of the Building Regulations 2015</p> <p>Number of self-build and custom build homes achieved</p> <p>Number and Type of Specialist Accommodation achieved</p>	Specialist Accommodation Report	<p>and adaptable dwellings, or M4(3) wheelchair adaptable dwellings, of the Building Regulations 2015</p> <p>On developments of 60 or more dwellings a minimum of 5% of new affordable dwellings should be built to meet requirement M4(3) wheelchair accessible dwellings of the Building Regulations 2015</p> <p>On developments of 500 or more dwellings a minimum of 5% self-build homes to be achieved</p> <p>On developments of 500 or more dwellings an appropriate provision of Specialist Accommodation to be achieved</p>	
BE19 Protecting the Existing Housing Stock	Net number of permitted and completed homes	AMR	No net loss in dwellings from development proposals	
BE20 Residential Density	Covered by other indicators within the monitoring framework		Target not required	
BE 21: Specialist Accommodation	Number and Type of Specialist Accommodation achieved	Specialist Accommodation Report	All permissions granted for Specialist Accommodation in accordance with the Policy	

Plan Policy	Indicators	Delivery Mechanism	Target	Actions
			Appropriate provision of Specialist Accommodation to be achieved	
BE22 Affordable Housing	Number of affordable homes completed Type and tenure of affordable homes completed	AMR	To achieve 35% of affordable homes on threshold sites To achieve a tenure split of 86% Affordable/Social Rent and 14% as other forms of affordable housing	Affordable Housing target not required but still needs to refer to all policies
BE23 Standards for New housing	Internal spaces to be above minimum standards in National Space Standards	Planning permission	100% of new homes at or above national minimum standards.	
PE24: Provision for Gypsies and Travellers	Number of new Gypsy and Traveller pitches approved Number of existing Gypsy and Traveller pitches approved for a change of use to other uses	AMR	To achieve 5 new and 8 regularised Gypsy and Traveller pitches by 2033.	Continue with the GTAA joint assessment work with other Essex boroughs.
POLICY BE25: Regularising suitable existing traveller sites	Number of new Gypsy and Traveller pitches approved Number of existing Gypsy and Traveller pitches approved for a change of use to other uses	AMR	To achieve 5 new and 8 regularised Gypsy and Traveller pitches by 2033.	
POLICY BE26: Safeguarding permitted sites	Number of existing Gypsy and Traveller pitches approved for a change of use to other uses	AMR	Not required	
POLICY BE27: Sub-Division of Pitches r Plots	Case by case recording of split pitches/plots	AMR	Not required	Monitor as part of ongoing needs assessment information collation
POLICY BE28: Proposals for	Case by case recording of successful applications for new pitches/plots	AMR	Not required	Monitor as part of ongoing needs

Plan Policy	Indicators	Delivery Mechanism	Target	Actions
Gypsies, Travellers and Travelling Showpeople On Windfall sites Design and Place-making				assessment information collation
POLICY BE29: Planning for Inclusive Communities	Quality of design of new development	Planning application process	Not required	All permissions granted for new development are in accordance with the Policy
POLICY BE30: Creating Successful Places	Quality of design of new development	Planning application process	Not required	All permissions granted for new development are in accordance with the Policy
POLICY BE31: Responding to Context	Quality of design of new development	Planning application process	Not required	All permissions granted for new development are in accordance with the Policy
POLICY BE32: Permeable and Legible Layout	Quality of design of new development	Planning application process	Not required	All permissions granted for new development are in accordance with the Policy
POLICY BE33: Buildings Design	Quality of design of new development	Planning application process	Not required	All permissions granted for new development are in accordance with the Policy
POLICY BE34: Paving over Front Garden	Quality of design of new development	Planning application process	Not required	All permissions granted for new development are in accordance with the Policy
POLICY BE35: Designing Landscape and the Public Realm	Quality of design of new development	Planning application process	Not required	All permissions granted for new development are in accordance with the Policy
POLICY BE36: Green & Blue Infrastructure	Inclusion of infrastructure in the design of new development. Sq.m of new accessible open space.	Planning application process	Not required	All permissions granted for new development are in accordance with the Policy

Plan Policy	Indicators	Delivery Mechanism	Target	Actions
POLICY BE37: Access to Nature	Distance to open space and to designated wildlife areas.	Planning application process	Within 1km of accessible open space or on site provision.	All permissions granted for new development are in accordance with the Policy
POLICY BE38: Allotments and Community Food Growing Space	Sq.m of new food growing space.	Planning applications	Net gain	
POLICY BE39: Protecting Land for Gardens	Quality of design of new development	Planning application process	Not required	All permissions granted for new development are in accordance with the Policy
POLICY BE40: Open Space in New Development	Provision of functional open space	Planning applications	Net gain	All permissions granted for new development are in accordance with the Policy
POLICY BE41: Open Space, Community, Sport and Recreational Facilities	Provision of on site open space – new sq. m	Planning applications	Net gain	All permissions granted for new development are in accordance with the Policy
POLICY BE42: Conservation and Enhancement of Historic Environment	Number of applications permitted affecting designated Heritage Assets	Planning applications	All permissions granted which affect a designated Heritage Asset	
POLICY BE43: Listed Buildings	Number of applications permitted affecting Listed Buildings	Planning applications	All permissions granted which affect Listed Buildings	
POLICY BE44: Conservation Areas	Number of applications permitted affecting conservation areas	Planning applications	All permissions granted which affect conservation areas	
POLICY BE45: Local Heritage Assets	Number of applications permitted affecting designated Heritage Assets	Planning applications	All permissions granted which affect a Local Heritage Asset	

Plan Policy	Indicators	Delivery Mechanism	Target	Actions
POLICY BE46: Scheduled Monuments and Archaeological Remains	Number of applications permitted affecting Scheduled Monuments and Archaeological Remains	Planning applications	All permissions granted which affect Scheduled Monuments and Archaeological Remains	
Chapter 6 - Prosperous Community				
POLICY PC01: Cultivating a Strong and Competitive Economy	Types of applications approved within the Employment Areas	Planning application process	Net Gain	
POLICY PC02: Job Growth and Employment Land	Types of applications approved within the Employment Areas	Planning application process	Net Gain	
POLICY PC03: Employment Land Allocations	Types of applications approved within the new Employment Areas	Planning application process	Net Gain	
POLICY PC04: Development and Expansion of Business Space	Types of applications approved within the borough	Planning application process	Net Gain	
POLICY PC05: Employment Development Criteria	Number of applications approved in line with criteria	Planning application process	Net Gain	
POLICY PC06: Supporting the Rural Economy Retail and Commercial Leisure	Number of applications approved	Planning application process	Net Gain	
POLICY PC07: Retail and Commercial Leisure Growth	Types of applications approved within the allocated and non-allocated retail locations	Planning application process	Net Gain	
POLICY PC08: Retail Hierarchy	Types of applications approved within the allocated Designated Centres	Planning application process	Net Gain	

Plan Policy	Indicators	Delivery Mechanism	Target	Actions
of Designated Centres				
POLICY PC09: Brentwood Town Centre				
POLICY PC10: Mixed Use Development in Designated Centres	Types of applications approved within the allocated Designated Centres	Planning application process	Retention of mix of uses as described within policy	Review of change in Designated Centres
POLICY PC11: Primary Shopping Areas	Types of applications approved within the allocated Primary Shopping Centres	Planning application process	Retention of mix of uses as described within policy	Review of change in Primary Shopping Centres
POLICY PC12: Non-centre Uses	Types of applications approved within the non-centre locations	Planning application process	Retention of mix of uses as described within policy	Review of change in non-centre locations
POLICY PC13: Night Time Economy	Number of applications approved for after hours leisure operation Complaints received by Local Authority and police regarding detrimental impact	Planning permission with suitable management and stewardship schemes Licensing process informative	Low to zero complaints	
POLICY PC14: Protecting and Enhancing Community Assets (Community Infrastructure)	Number of applications permitted for the change of use of existing community facilities Losses of Community facilities	Planning applications Application for registration of Community Asset	No net loss	Report and review in AMR
POLICY PC15: Education Facilities	Number of applications for permitted change for the change of use of Education Establishments to other uses. Change in school student numbers	With ECC and independent school providers	Change to reflect population changes, current presumption is a net increase.	
POLICY PC16: Buildings for Institutional Purposes	Number of applications permitted for the change of use of existing institutional facilities Losses of Institutional facilities	Planning applications	No net loss	Report and review in AMR

Plan Policy	Indicators	Delivery Mechanism	Target	Actions
Chapter 7 - Natural Environment				
POLICY NE01: Protecting and enhancing the natural environment	<p>Losses to areas of biodiversity/geodiversity habitat</p> <p>Additions to areas of biodiversity/geodiversity habitat</p> <p>Total change in biodiversity/geodiversity habitat</p> <p>Number of planning approvals that generated any adverse impacts on sites of acknowledged biodiversity importance.</p> <p>Percentage of major developments generating overall biodiversity enhancement.</p> <p>Hectares of biodiversity habitat delivered through strategic site allocations.</p>	Through the determination of planning applications, SPDs, master plans, design codes, neighbourhood plans, ecological appraisals	All permissions granted which affect biodiversity/geodiversity habitat are in accordance with policy	
POLICY NE02: Recreational disturbance Avoidance and Mitigation (RAMS) Strategy	Contributions will be reviewed to reflect the planning permissions granted within the Zone of Influence and reflected in the SPD.	Through the determination of planning applications	Not required	<p>Development of Joint Essex SPD, Review and monitoring for SPD and review of Zones of influence.</p> <p>Continue to work with other Essex boroughs and with the Epping Forest steering group to update evidence base surveys.</p> <p>Appropriate surveys and Zone of Influence review will be reflected in the size of the zones.</p>
POLICY NE03: Trees,	Losses to areas woodland, hedgerow, trees	Through the determination of planning applications	Zero loss	

Plan Policy	Indicators	Delivery Mechanism	Target	Actions
Woodlands, Hedgerows	Additions to areas of woodland, hedgerow, trees Total change in woodland, hedgerow, trees			
POLICY NE04: Thames Chase Community Forest Promoting a Clean and Safe Environment	Additions to areas of woodland, hedgerow, trees	Through the determination of planning applications	Net gain	
POLICY NE06: Air Quality	Levels of pollution	Through the determination of planning applications	As defined by Government AQMA requirements	All permissions granted for new development are in accordance with Policy and technical advice.
POLICY NE07: Flood Risk	Impact on flood risk in an area. Number of applications approved contrary to EA advice	Through the determination of planning applications	All development granted which affect flood risk are in accordance with policy	
POLICY NE08: Contaminated Land and Hazardous Substances	Levels of pollution	Through the determination of planning applications	As defined by Government AQMA requirements. All permissions granted for new development are in accordance with Policy and technical advice.	
POLICY NE09: Floodlighting and Illumination Green Belt and Rural Development	Impact new development has on the amenity of surrounding areas	Through the determination of planning applications	All permissions granted for new development are in accordance with Policy	
POLICY NE12: Green Belt	Covered by other indicators within the monitoring framework		Target not required	
POLICY NE13: New Development, Extension and Replacement of	Net new development within Green Belt	Through the delivery of the Local Plan and determination of planning applications	Target not required	

Plan Policy	Indicators	Delivery Mechanism	Target	Actions
Buildings In Green Belt				
POLICY NE14: Established Areas of Development and Structures In The Green Belt	Net new development within Green Belt	Through the delivery of the Local Plan and determination of planning applications	Target not required	
POLICY NE15: Previously Developed Land in Green Belt	Net new development within Green Belt on previously developed land	Through the delivery of the Local Plan and determination of planning applications	Target not required	
POLICY NE16: Site Allocations in Green Belt	Net change in designated Green Belt sq. meterage / ha	Through the development of the Local Plan	Target not required	Removal of Green Belt designation from allocated sites to encourage development at these locations through the Local plan process
POLICY NE17: Agricultural Workers Dwellings	Net new development within Green Belt	Through the determination of planning applications	Target not required	
POLICY NE18: Re-Use and Residential Conversion of Rural Buildings	Covered by other indicators within the monitoring framework	Through the determination of planning applications	Target not required	
Chapter 8 –Site Allocations				
Site Specific Allocations	Monitoring of allocated sites coming forward to application stage; sites with consent; units reaching completion (refer to Housing policies and Targets).	Through the determination of planning applications	Refer to housing targets (Chapter 5).	Failure to come to application or then to approval and to completion instigates review of Local plan

Appendix 4 – Proposed changes to Policies Map

Production of a new policies map will require changes to the 2005 proposals map. Maps setting out the below changes will be provided for Regulation 19 consultation:

1. Amended Conservation Areas (since 2005);
2. New development allocations (including Green Belt boundary changes);
3. Identified Local Wildlife Site changes (Local Wildlife Site Review 2012 <http://www.brentwood.gov.uk/pdf/17072013120644u.pdf>);
4. Gypsy and Traveller site boundaries;
5. Retail designations;
6. Functional Flood plain;
7. New Article 4 Areas (since 2005)

Entire removal of the following designations on the map

8. Landscape improvement area;
9. Special Landscape Area;
10. Red House Lake designation;
11. Recreation;
12. Indoor leisure;
13. Hotel; Shops/residential;
14. Shops/car parking/small shops;
15. shops /offices;
16. Financial & professional offices;
17. Residential/offices/shops;
18. Employment/offices;
19. Open storage;
20. Crossrail safeguarded area;
21. Community /offices;

Along with the other retained designations and constraints from the 2005 Proposals Map, these will be combined into a Policies map for adoption.

Sustainability Appraisal (SA) of the Brentwood Local Plan

SA Report

October 2018

DRAFT version for Elected Councillors

REVISION SCHEDULE					
Rev	Date	Details	Prepared by	Reviewed by	Approved by
1	October 2018	SA Report published alongside the Proposed Submission Plan DRAFT version for Councillors; subject to final revisions ahead of publication	Mark Fessey Associate	Steve Smith Technical Director	Steve Smith Technical Director

Limitations

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INTRODUCTION

1 INTRODUCTION

1.1 Background

1.1.1 AECOM is commissioned to undertake Sustainability Appraisal (SA) in support of the emerging Brentwood Local Plan.

1.1.2 Once in place, the Local Plan will establish a spatial strategy for growth and change in the Borough over the next 15 years, allocate sites to deliver the strategy and establish the policies against which planning applications will be determined. **Figure 1.1** shows the plan area.

1.1.3 SA is a mechanism for considering and communicating the likely effects of an emerging 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

1.2 SA explained

1.2.1 It is a requirement that SA is undertaken in-line with the procedures prescribed by the Environmental Assessment of Plans and Programmes Regulations 2004, which were prepared in order to transpose into national law the EU Strategic Environmental Assessment (SEA) Directive.²

1.2.2 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.

1.2.3 More specifically, the SA Report must answer the following **three questions**:

1. What has Plan-making / SA involved **up to this point**?
 - including with regards to the consideration of 'reasonable alternatives'.
2. What are the SA findings **at this stage**?
 - i.e. in relation to the draft plan.
3. What happens **next**?
 - including in respect of monitoring.

1.3 This SA Report

1.3.1 This report is the Brentwood Local Plan SA Report. It is published alongside the final draft ('proposed submission') plan in-line with Regulation 19 of the Local Planning Regulations.

1.3.2 Questions 1 - 3 are answered in turn, in order to provide the required information.⁴ Before answering Question 1, two initial questions are answered in order to further set the scene:

- i) What is the plan trying to achieve?
- 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 (NPPF, 2018). 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 *Procedurally* SA and SEA are one and the same, with no legislation or guidance to suggest that SA process should differ from the prescribed SEA process. SA and SEA differ only in terms of *substantive focus*. SA has an equal focus on all three 'pillars' of sustainable development, whilst SEA involves a degree of focus on the environmental pillar. SA therefore 'incorporates' SEA.

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.

2 WHAT IS THE PLAN SEEKING TO ACHIEVE?

2.1.1 The aim of this section is to explain more fully the objectives of the plan, introduce the policy and legislative context, and also present a brief discussion of what the plan is 'not trying to achieve', in order to explain the role of the plan within the wider planning process.

2.2 Objectives of the Local Plan

2.2.1 The Local Plan seeks alignment with the Council's Corporate Plan 2016-19, which identifies five overarching priorities: 1) Environment and Housing Management; 2) Community and Health; 3) Economic Development; 4) Planning & Licensing; 5) Transformation. Specifically, the plan is being prepared with a view to achieving the following objectives -

- **Manage Growth Sustainably**, by directing development to the most sustainable locations, ensuring that the characteristics and patterns of our different settlements are protected and enhanced to provide a strong emphasis on 'sense of place' to be enjoyed by people living, working and visiting Brentwood.
- **Deliver a Healthy and Resilient Built Environment**, one where our design creates spaces that encourage social interaction; mitigates, reduces impact or adapts to conditions of a changing climate through smart infrastructure; creates public realm and homes where both the internal and external spaces are conducive to human health.
- **Deliver Sustainable Communities** with Diverse Economic & Social-cultural Opportunities for all, opportunities which flexibly respond to the changing economic climate and employment sector trends making citizens feel economically empowered to enjoy and benefit from the necessary community/social infrastructure that sustains inclusive, informed, vibrant, active and cohesive communities.
- **Deliver Beautiful, Biodiverse, Clean and a Functional Natural Environment**, where our natural heritage is protected and ecosystem services are restored, enhanced and integrated back into the built environment through multi-functional green infrastructure.

2.3 Legislative and policy context

2.3.1 The plan is being prepared under the Town and Country (Local Planning) Regulations 2012, and must be in accordance with Government policy as set out in the National Planning Policy Framework (NPPF, 2018) and Planning Policy for Traveller Sites (2015). In particular, the NPPF requires local authorities to take a positive approach to development, with an up-to-date local plan that meets objectively assessed development needs (**OAHN**), otherwise known as local housing needs (**LHN**), as far as is consistent with sustainable development.

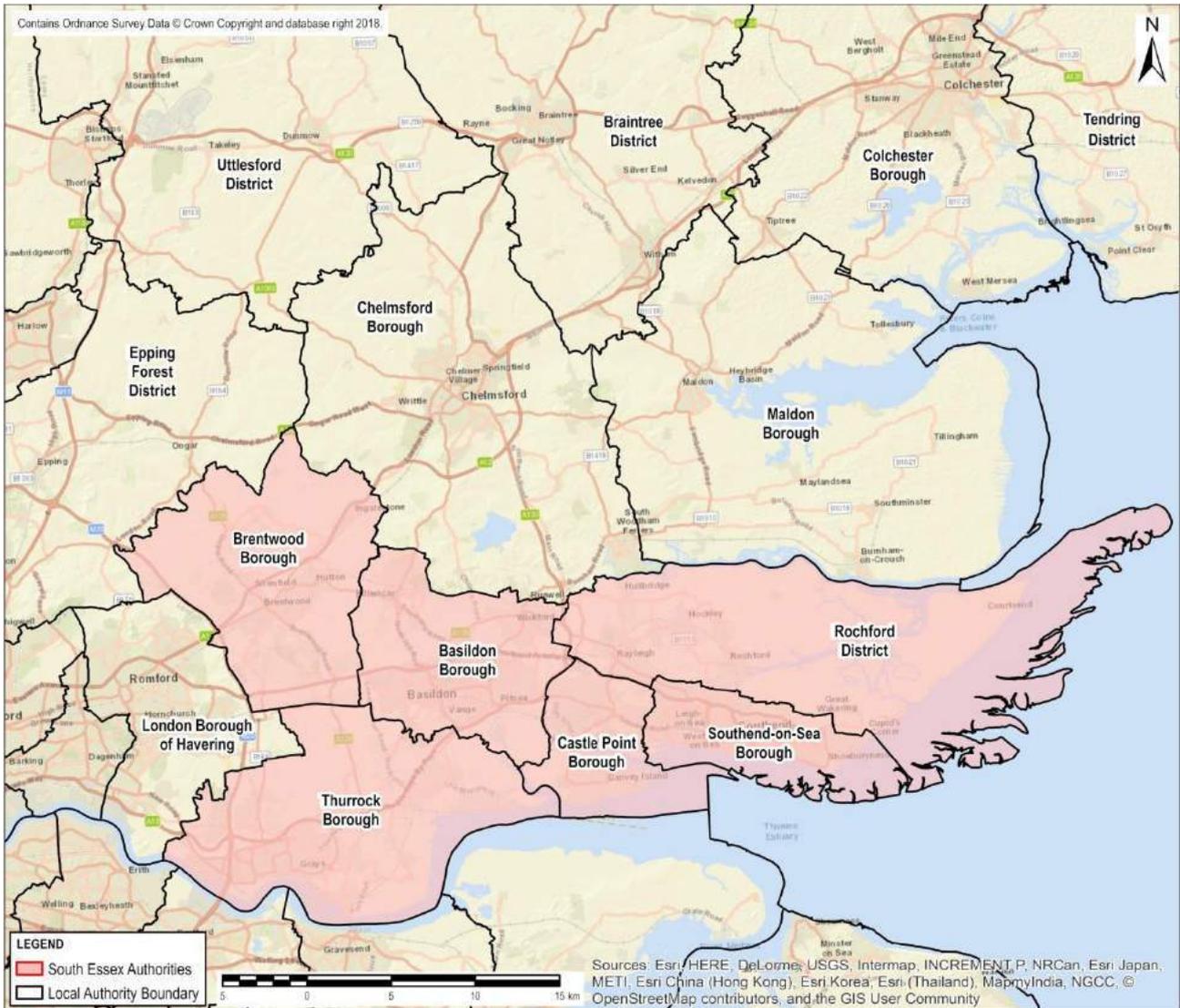
N.B. the Council's intention is to submit the Brentwood Local Plan post 24th January 2019, which is the date that marks the end of the 'transition period' for implementing the new NPPF. As such, it will be examined by the Planning Inspectorate under the **new NPPF (2018)**.

2.3.2 The plan is also being prepared taking account of objectives and policies established by various organisations at the national and local level, in accordance with the Duty to Cooperate established by the Localism Act 2011. For example, context is provided by the strategic growth aspirations of the South East Local Enterprise Partnership (**LEP**), and Essex County Council (**ECC**) strategy - e.g. in relation to transport, minerals and education. Brentwood must also cooperate with neighbouring areas, particularly the other South Essex authorities with whom there is a commitment to prepare a Joint Strategic Plan (**JSP**) - see **Figure 2.1**.

2.4 What is the Local Plan *not* seeking to achieve?

2.4.1 The plan will be strategic in nature, and hence naturally omit consideration of some detailed issues in the knowledge that these can be addressed at subsequent stages of the planning process. Specifically, decisions taken on planning applications will provide a forum for establishing and addressing many site-specific issues, meaning that not all issues need be identified and addressed through policy within the Local Plan.

Figure 2.1: Brentwood Borough in the South Essex context



3 WHAT’S THE SCOPE OF THE SA?

3.1 Introduction

3.1.1 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 appraisal work. **Appendix II** presents further information.

Consultation on the scope

3.1.2 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 2013.

3.2 Key issues / objectives

3.2.1 Table 3.1 presents the sustainability issues/objectives (henceforth ‘objectives’) established through SA scoping. Objectives are grouped under ‘topics’. Taken together, these sustainability topics and objectives provide a methodological ‘framework’ for appraisal.⁶

Table 3.1: Sustainability topics and objectives (the SA framework)

Topic	Objectives
Air quality	<ul style="list-style-type: none"> • Air pollution (and associated risks to health) must be an on-going consideration particularly that which results from traffic congestion in Brentwood town centre. • The health of those in the Borough must be protected from the adverse effects of development through avoidance or mitigation measures.
Biodiversity	<ul style="list-style-type: none"> • The Borough's existing natural assets need to be protected from the impacts of future development and where possible enhanced. • The Borough's network of green infrastructure should be protected, enhanced and strategically expanded to deliver benefits for people and wildlife. • Areas that are home to declining species or habitats should be a particular target for protection and ecological restoration.
Climate change mitigation	<ul style="list-style-type: none"> • With regionally high levels of domestic GHG emissions, it will be necessary to improve the energy efficiency of all buildings in the Borough. • A shift towards low carbon forms of transport will be required in order to reduce per capita transport related emissions. • An opportunity exists to obtain a greater proportion of energy from renewable sources. • Development should be constructed and situated in order to minimise resource use and to maximise the opportunities for reuse and recycling. • Businesses in the Borough should to contribute to the creation of a low-carbon economy, including reduced levels of energy use in buildings and from transport.

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

⁶ N.B. the objectives listed here are unchanged from 2013. Chapter 10 (‘Appraisal of the Proposed Submission Plan’) presents the objectives in a refined form.

Topic	Objectives
Community and well-being	<ul style="list-style-type: none"> • Reduce health inequalities, and inequalities more generally, with a particular focus on those areas suffering from the highest levels of deprivation. • As the number of people aged over 85 in the Borough grows there will be a need for provision of services and suitable accommodation for older people. • Ensure that Gypsy and Traveller communities have suitable access to services and healthcare and that sufficient sites are available to meet demand. • Improve levels of educational performance in certain areas; and ensure that there is sufficient provision of education facilities across the Borough. • Improve access to services and facilities in rural areas of the Borough. • Improved open spaces and recreation facilities are a requirement in certain areas, with a particular focus on youth facilities needed in many places.
Economy and employm't	<ul style="list-style-type: none"> • Protect and support the Borough's smaller centres and parades. • The competitiveness of key employment areas such as Brentwood town centre and Warley Business Park must be supported, including by promoting sites for high quality offices. • Support investment that leads to high value, knowledge-based employment activities. • Consider future opportunities and consequences associated with the Shenfield and Brentwood Crossrail link. • Support a thriving town centre focused on Brentwood High Street through a good balance of retail (comparison and convenience), services, employment and residential.
Flooding	<ul style="list-style-type: none"> • Reduce flood risk, including as climate change may increase risk. • Protect and enhance existing natural flood risk management infrastructure and ensure all development incorporates SuDS to minimise flood risk.
Heritage	<ul style="list-style-type: none"> • The Borough's heritage assets must be given protection relative to their importance. • Areas of identified historic character should be protected as should the historic buildings that contribute most to local character. • Development must be of an appropriate scale and design, respecting existing character.
Housing	<ul style="list-style-type: none"> • Housing affordability is a significant issue for many in the Borough and demand for affordable housing is likely to continue to rise; as such there is a need to increase delivery of affordable and intermediate housing. • New housing must be of an appropriate size, tenure and design so as to meet the needs of existing and future residents (including the elderly, disabled people and those in poor health) and ensure that people are able to remain in the Borough as their circumstances change.
Landscape	<ul style="list-style-type: none"> • The Borough includes highly valued rural landscapes that require protection and careful management with a view to supporting distinctiveness. • Urban fringe landscapes should also be a focus of careful planning.
Soils	<ul style="list-style-type: none"> • Make best use of brownfield land and protect the resource of productive agricultural land.
Waste	<ul style="list-style-type: none"> • A primary concern is to promote the integration of facilities to enable efficient recycling as part of new developments. • Developers should be encouraged to adopt sustainable construction practices, including handling waste arisings, recycling, and disposal in a sustainable manner.
Water	<ul style="list-style-type: none"> • Water quality is a concern, with a need to improve the ecological status of waterways. • Deliver water efficiency measures, given serious water stress regionally.

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

4 INTRODUCTION (TO PART 1)

4.1.1 Plan-making has been underway since 2009, with several consultations having been held (under Regulation 18 of the Local Planning Regulations) prior to this current Regulation 19 consultation, and five Interim SA Reports having been published - see **Figure 4.1**.

Figure 4.1: Key steps in the plan-making / SA process

	Plan-making	SA
2009 - 2013	Early plan-making steps, SA scoping and informal appraisal	
2013	Preferred Options consultation	Interim SA Report
2015	Strategic Growth Options consultation	Interim SA Report
2015	Dunton Hills Garden Village consultation	Interim SA Report*
2016	Draft Plan consultation	Interim SA Report
Early 2018	Preferred Site Allocations consultation	Interim SA Report
Mid 2018	Further work to consider options / alternatives	
Late 2018	Publication (Reg 19)	SA Report
2019	Submission to Secretary of State	

* The ISA Report published alongside the Dunton Hills Garden Village consultation document was prepared jointly with Basildon District Council, and led by LUC consultants.

4.1.2 The focus here, within Part 1, is not to relay the entire ‘story’ of plan-making to date, but rather the work undertaken to develop and then appraise **reasonable alternatives** in mid-2018, prior to finalising the Proposed Submission Plan for publication.⁷

4.1.3 More specifically still, this part of the report presents information regarding the consideration of reasonable alternative approaches to housing growth, or ‘**spatial strategy alternatives**’. It is clear that allocating land for housing is a central plan objective (see Chapter 3).⁸

4.1.4 The importance of giving close consideration to reasonable alternatives, and in particular reasonable spatial strategy alternatives, is reflected in consultation response to date, e.g. from Basildon Borough Council - see **Box 4.1**.

What about other land uses?

4.1.5 In addition to allocating land to meet housing needs, the Local Plan must allocate land to meet other needs, in particular needs employment land. The discussion of spatial strategy alternatives presented below is ‘housing-led’; however, it also provides a forum for examining provision for other land uses.

What about other plan issues?

4.1.6 The plan must set policy to address a range of thematic issues/objectives, both borough-wide and site-specific; however, it is reasonable for preferred policy approaches to emerge without formal consideration having been given to reasonable alternatives. Such issues/objectives are not of the same magnitude of strategic importance as the ‘spatial strategy’, and there is less potential to differentiate alternatives in terms of significant effects.

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’. The aim is to inform the consultation, and subsequent plan finalisation.

⁸ Regulation 12(2) requires that, when determining what should be a focus of alternatives appraisal, account is taken of “the objectives and geographical scope of the plan”.

Box 4.1: Basildon Borough Council comments on Brentwood Borough reasonable alternatives (2018)

Basildon Borough Council's response to the 2018 'Preferred Site Allocations' consultation included a statement on "Brentwood Borough's Reasonable Alternatives".⁹ The statement (in full) was as follows: "Basildon Borough Council has previously commented on the Brentwood Draft Local Plan 2016 in relation to identifying and considering reasonable alternatives when developing the Local Plan's spatial strategy, growth options, specific sites and policies to ensure compliance with national policy and Strategic Environmental Assessment legislation. As stipulated in paragraph 182 of the NPPF, for a Local Plan to be found "sound" it should have been positively prepared, be effective including the plan's deliverability, be consistent with national policy and be justified insofar as being the most appropriate strategy, when considered against the reasonable alternatives, based on proportionate evidence. It is not currently clear from the published evidence how Brentwood Borough Council can demonstrate this and a technical comment is being raised that the Brentwood Local Plan could be procedurally unsound as a result of this."

This statement does not make any substantive suggestion as to the scope of reasonable spatial strategy alternatives (indeed, it does not acknowledge the work undertaken on reasonable spatial strategy alternatives at all; nor does the subsequent section on 'SA'); however, this statement serves to highlight the importance of giving close consideration to reasonable spatial strategy alternatives.

What about site options?

- 4.1.7 Site options are not 'reasonable alternatives' where there is no mutually exclusive choice to be made between them;¹⁰ however, it is naturally the case that there is a need to examine site options as part of the process of arriving at reasonable spatial strategy alternatives. As such, site options are discussed in Chapter 5 ('Selecting the reasonable alternatives').

What about SA work from past stages?

- 4.1.8 Appraisal findings from the five Interim SA Reports are not repeated here,¹¹ but rather are discussed, as necessary, as an input to the establishment of reasonable spatial strategy alternatives. Previous reports have been superseded, but remain on the Council's website.

Structure of this part of the report

- 4.1.9 This part of the report is structured as follows -

Chapter 5 - explains the reasons for **selecting the alternatives** dealt with

Chapter 6 - presents an **appraisal** of the reasonable alternatives

Chapter 7 - explains the Council's reasons for **selecting the preferred option**

Who's responsibility?

- 4.1.10 It is important to be clear that: selecting reasonable alternatives is the responsibility of the plan-maker (BBC), with AECOM acting in an advisory capacity; appraising the reasonable alternatives is the responsibility of AECOM; and selecting the preferred option is the responsibility of the plan-maker (BBC).

⁹ See <https://brentwood.jdi-consult.net/localplan/download.php?action=download&uploadid=14748> (pg. 10 of the PDF).

¹⁰ A site option is not a 'reasonable alternative', in the context of a Local Plan, where there is no understanding of how the site option in question would be delivered in combination with other sites, and noting that it is the central objective of all Local Plans to deliver a package of sites *in combination*. If a site option is presented without an explanation of how it would be delivered in combination with other sites (e.g. "in addition to sites X, Y and Z"; or "in place of site X") then the choice remains essentially undefined. The SEA Directive and Regulations aim to ensure that plan-makers and stakeholders are presented with clear, mutually exclusive choices.

¹¹ Essex County Council responded to the 2018 Preferred Allocations consultation with the suggestion that: "a *comprehensive audit trail of those alternatives that have been considered and subject to SA throughout the plan-making process should be produced, including detailing the reasons for rejecting and progressing alternatives at each stage.*" We disagree on the necessity of presenting information on past alternatives appraisal over-and-above what is necessary for the purposes of providing "an outline of the reasons for selecting the alternatives dealt with". Comprehensive information on past alternatives appraisal work is of only academic interest, recognising that the work has been superseded, and presenting this information is not a requirement. The requirement is only to present an appraisal of up-to-date reasonable alternatives (see Chapter 6) and "an outline of the reasons..." (see Chapter 5).

5 SELECTING THE REASONABLE ALTERNATIVES

5.1 Introduction

- 5.1.1 The aim here is to discuss the key steps undertaken in mid-2018 that led to the development of reasonable spatial strategy alternatives for appraisal and consultation.
- 5.1.2 Ultimately, the aim of this chapter is to present ‘an outline of the reasons for selecting the alternatives dealt with’, in accordance with the Regulations.¹²
- 5.1.3 Specifically, this chapter explains how reasonable alternatives were established subsequent to certain ‘initial’ and ‘interim’ steps - see **Figure 5.1**.

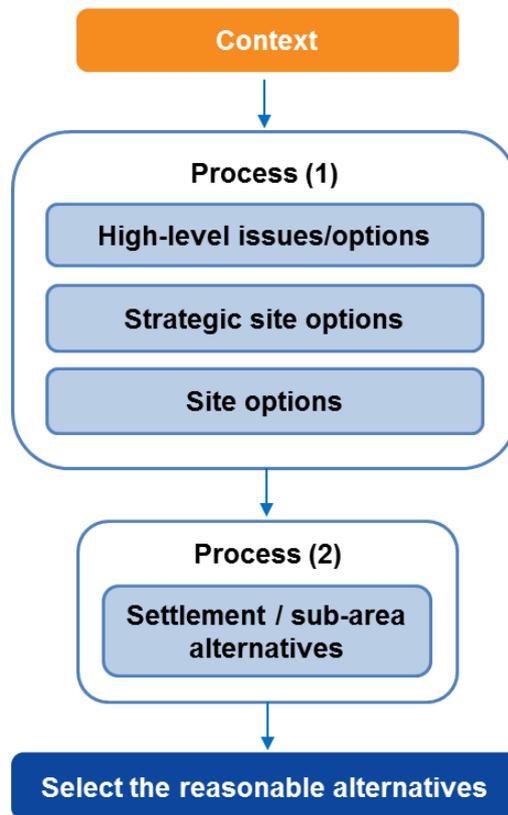


Figure 5.1: Establishing reasonable spatial strategy alternatives

Structure of this chapter

- 5.2 - Discusses **high-level** issues/options
- 5.3 - Discusses **strategic site** options
- 5.4 - Discusses **smaller site** options
- 5.5 - Discusses **settlement / sub-area** options
- 5.6 - Explains how understanding was drawn upon to select the **reasonable alternatives**.

N.B. the **context** is referenced throughout Chapter 5.

¹² Schedule II of the Environmental Assessment of Plans and Programmes ('SEA') Regulations 2004

5.2 High-level issues/options

5.2.1 As a first step, when seeking to establish reasonable spatial strategy alternatives in 2018, there was a need to consider the ‘top down’ factors relating to -

- **quantum** (*how many new homes should the Brentwood Local Plan provide for?*); and
- **broad distribution** (*what areas are more / less suited to housing growth?*).

Quantum

5.2.2 A central tenet of plan-making process is the need to A) objectively establish housing needs; and then B) develop a policy response to those needs, which will usually mean providing for needs in full, but which under certain circumstances may mean providing for a quantum of homes above or below needs. This principle was stated clearly at paragraph 47 of the NPPF (2012), and is taken forward through the NPPF (2018) at paragraph 11, which states -

*“plans should positively seek opportunities to meet the development needs of their area, and be sufficiently flexible to adapt to rapid change... strategic policies should, as a minimum, provide for **objectively assessed needs** for housing and other uses, as well as any needs that cannot be met within neighbouring areas, **unless**: i. the application of policies in this Framework that protect areas or assets of particular importance provides a strong reason for restricting the overall scale, type or distribution of development in the plan area; or ii. any adverse impacts of doing so would significantly and demonstrably outweigh the benefits, when assessed against the policies in this Framework taken as a whole.”* [emphasis added]

5.2.3 The NPPF uses the term objectively assessed needs interchangeably with **local housing need**, with para 60 stating: *“strategic policies should be informed by a local housing need assessment, conducted using the **standard method** in national planning guidance – unless exceptional circumstances justify an alternative approach which also reflects current and future demographic trends and market signals.”* [emphasis added] An ‘indicative’ standard method was first published for consultation in 2017 and currently remains largely unchanged. However, the Government plans to make changes to the method in the near future.

5.2.4 The PPG is clear that the standard method should be applied to the most recent data available which, in practice, means the most recent Government household projections and the most recent data on local affordability (i.e. the ratio of house prices to income). Assuming submission in early 2019, the current set of household projections (2016 based) and the latest affordability data (2017) should still be extant. Using this most recent data, the standard method shows an ‘uncapped’ need figure for Brentwood of 365 dwellings per annum (dpa), which reduces to **350 dpa** once the 40% cap is applied.¹³ This is the objectively assessed housing need (OAHN) / local housing need (LHN) figure for Brentwood.

5.2.5 There are limited arguments to suggest that the Brentwood Local Plan might provide for **below LHN**. Further discussion is presented in **Box 5.1**.

N.B. in practice providing for LHN means **allocating sites** with a total capacity sufficient to deliver *above* LHN, as a contingency for delayed delivery for one reason or another (noting the NPPF para 11 requirement to *“be sufficiently flexible to adapt to rapid change”*)¹⁴ and in order to ensure a suitably smooth trajectory of housing delivery across the plan period. The matter of what scale of contingency is appropriate is returned to below, within Section 5.5.

5.2.6 However, it is not possible to rule-out the option of providing for **above LHN**, for the purposes of establishing reasonable spatial strategy alternatives. There are potentially both pragmatic and policy reasons - see **Box 5.2** and **Box 5.3**. As such, the matter of reasonable higher growth options is returned within **Section 5.5**.

¹³ Applying a ‘cap’ is the third and final step in the standard method. Specifically, the method establishes that the increase on household projections to reflect affordability (step 2 of the method) should be limited to 40%.

¹⁴ For example, a strategic site due to deliver housing late in the plan period might be subject to unforeseen delays, such that some of the housing anticipated to be delivered in the plan period is in fact delivered beyond the plan period.

Box 5.1: Explaining the unreasonableness of providing for below LHN

Options involving providing for significantly below LHN can be ruled-out as unreasonable on the basis of there being no potential to export unmet needs to neighbouring authorities, which are equally as constrained as Brentwood in respect of the “areas or assets of particular importance” listed by footnote 6 of the NPPF that can provide “a strong reason for restricting the overall scale... of development...” In particular, all neighbouring authorities fall within the London Metropolitan Green Belt, as Brentwood does. The nearest non-Green Belt land is found to the north and east of Chelmsford; however, Brentwood Borough, and in particular the main urban area, is distant from and poorly connected to this area.

Brentwood links most closely to other South Essex authorities, as reflected in the 2018 resolution to prepare a Joint Strategic Plan (JSP) for South Essex;¹⁵ however, the other South Essex authorities are as constrained by ‘footnote 6’ considerations as Brentwood, if not more so (e.g. Castle Point is a small district with narrow Green Belt gaps between settlements). Work on the JSP to date has not specifically addressed the matter of distributing needs between the constituent authorities, but equally there is little or no reason to suggest that the JSP could be used as a vehicle for distributing unmet needs from Brentwood.

Thurrock might be seen to be associated with a strategic growth opportunity given the forthcoming Lower Thames Crossing and associated link road to the M25; however, consultation responses received from Thurrock are clear that they support the Brentwood Local Plan providing for needs in full, with objections raised to any aspect of the Brentwood Local Plan that introduces a risk of needs not being met (e.g. over-reliance on one strategic allocation). It is also the case that Thurrock links as closely to Basildon and Castle Point (from where unmet needs are likely to arise - see **Table 5.1**) as it does to Brentwood.

Box 5.2: Pragmatic arguments for providing for above LHN

As discussed, the standard methodology is currently in a state of flux. Specifically, Government has indicated that it will soon consult on a new methodology in response to the fact that the latest household projections (2016-based) lead to notable reductions in LHN figures across the country, including for Brentwood. When the standard method was first introduced, the latest data (2014-based household projections), when inputted to the method, indicated a LHN figure for Brentwood of 454 dpa (2016-36).

As such, there is a pragmatic need to take into account the risk that the standard method will change, leading to a higher LHN figure for Brentwood, and that this change will happen prior to submission (or otherwise will be taken into account by the Inspector during the examination).

There is no way to predict how the standard methodology will change; however, there is another piece of evidence to take into account, when giving consideration to the potential to apply a pragmatic uplift to the LHN figure of 350, which is the Strategic Housing Market Assessment (SHMA, 2018).

The SHMA applies a bespoke methodology for calculating OAHN/LHN - i.e. a method quite distinct to the standard methodology, and arrives at a conclusion that: “OAN for the proposed plan period is between 338 – 357 dpa”. However, it also concludes that: “*In January 2018 we advised that the Council consider increasing the OAN... to 380 dpa when preparing the draft plan... the Council may still consider maintaining 380 dpa to allow for added contingency within the estimate of need...*” So, in short, the study actually concludes that OAN might lie in the range 338 - 380 dpa.

The PPG states that, when establishing need, in addition to applying the standard methodology, authorities should also consider “*recent assessments of need, such as a Strategic Housing Market Assessments (SHMA). Where these assessments suggest higher levels of need than those proposed by a strategic policy-making authority, an assessment of lower need should be justified.*”

The Council does not have any particular reasons to justify an assessment of lower need, i.e. any particular reason to suggest why the standard methodology figure of 350 dpa is more accurate than the upper end figure of **380 dpa** concluded by the SHMA (October 2018), and so this SHMA figure must be considered. Furthermore, the Council believes there also a pragmatic need to be mindful of the higher figure of **454 dpa** identified when inputting the 2014 based household projections to the standard method.

¹⁵ See the Statement of Common Ground at www.castlepoint.gov.uk/download.cfm?doc=docm93jjim4n3547.pdf&ver=5928

Box 5.3: Policy arguments for providing for above LHN

Options involving providing for above LHN, in order to make some housing available to meet unmet needs arising from elsewhere, have been examined closely at past plan-making / SA stages. For example, the January 2018 Interim SA Report served to highlight concerns with higher growth in respect of 'air quality' and 'landscape', albeit higher growth options were shown to perform relatively well in certain other respects, notably 'housing'. Drawing upon appraisal findings, the Council has repeatedly found higher growth options to perform poorly relative to the option of providing for Brentwood's needs only.

Furthermore, the South Essex JSP SoCG aims for submission in early 2020, and hence the JSP now provides a forum for examining options for distributing unmet needs within South Essex.

However, Basildon Borough Council formally requested, through the January 2018 consultation, that options involving the Brentwood Local Plan providing unmet needs be explored.¹⁶ Basildon has historically sat within a housing market area (HMA) shared with Thurrock, Castle Point, Rochford and Southend (i.e. a South Essex HMA omitting Brentwood), and a recent report prepared by Basildon officers explains a protocol for dealing with unmet need that involves focusing on the authorities within its HMA; however, the Basildon request must nonetheless be given careful consideration. It is clearly the case that Basildon does link closely to Brentwood, most notably along the A127 corridor. **Table 5.1** considers the latest situation in respect of the Basildon Local Plan, and the other plans being progressed by neighbouring authorities.

Finally, there is a need to consider the possibility of providing for 'above LHN' in order to more fully provide for affordable housing needs. There is no requirement to provide for affordable housing needs in full; however, the PPG (para 2a-027) does state: *"An increase in the total housing figures included in the plan may need to be considered where it could help deliver the required number of affordable homes."*

In practice, there have been few calls for the Brentwood Local Plan to provide for higher growth in order to provide for a higher proportion of affordable housing needs. Brentwood Borough's affordable housing need was updated in June 2016 and published as a Part 2 document to be read alongside the main 2016 SHMA, finding affordable need to be 107 dpa; which was 30.6% of the (then) demographic need flowing from the 2014 household projections.

¹⁶ Basildon's January 2018 consultation stated: *"Since the... Draft Local Plan consultation in 2016... Basildon Council... has taken the position that some changes should be made... One of these changes arises from the fact that the suite of sites identified for inclusion in the Basildon Borough Local Plan does not meet the identified need for housing of between 19,440 and 19,720 homes. This gives rise to an unmet housing need, which when delivery issues are taken into account is around 4,500 homes for the plan period up to 2034. [As such] it has been recommended that assistance is formally sought from other Local Planning Authorities (LPAs) in the Housing Market Area (HMA)... Whilst Brentwood Borough is not in the same HMA, it is a neighbouring borough, and should be aware that there could be a future need in line with the Essex Planning Officers Association - Protocol for Unmet Housing Need 2017, for it to consider meeting unmet needs from other HMAs, if options within those HMAs become exhausted..."*

Table 5.1: Progress on neighbouring Local Plans

Council	Next Stage ¹⁷	Commentary (including key issues for Brentwood)
Basildon	Unknown	<p>In June 2018 Members voted to rescind the early decision of March 2018 to publish and submit the Local Plan. Most recently, in September 2018, members considered an officer recommendation that omission sites be moved into the plan sufficient to ensure the plan provides for needs in full, stating: <i>“the remainder of the identified unmet need is addressed through a review of the omission sites ... Officers are of the view that the omitted supply is so great that it would be difficult to justify failing to increase the supply to meet the identified housing need for Basildon Borough.”</i></p> <p>The minutes of the meeting record that omission sites were voted upon in turn, with Members voting against inclusion in each instance. Members did vote to increase the assumed number of homes to be delivered at town centre sites by 6.4%; however, it is expected that a large unmet need figure will remain nonetheless. The September 2018 report to Members identified an unmet need figure of c.1,800 homes.</p>
Thurrock	Reg 18	<p>An ‘issues and options’ consultation was held in 2016, with a subsequent report published summarising key messages received, including that <i>“many of the representations submitted are asking for the Council to make provision to meet the housing needs of neighbouring areas.”</i>¹⁸</p>
Castle Point	Reg 19?	<p>Brentwood Borough Council responded to a 2018 consultation document as follows: <i>“Brentwood Borough Council note the identified objectively assessed housing needs range of 326 to 410 new homes per annum... However, we note that Castle Point Borough Council is not intending to meet this need and are proposing a target of 107 homes per annum... Brentwood Borough Council therefore object to the Castle Point draft New Local Plan.”</i> The unmet need figure is potentially as high as 6,000 homes (2011 to 2031).</p>
Rochford	Reg 18	<p>An issues and options consultation was held in 2018, with a draft plan (Reg 18) consultation timetabled for 2019. The issues and options document is non-committal, but notably identifies three options aimed at ensuring <i>“that we – as far as possible within the context of national policy and guidance – meet our own needs, and work effectively with our neighbours to ensure that we, as a collective, address the need for housing in the South Essex [HMA].”</i>¹⁹</p>
Southend-on-Sea	Reg 18	<p>An initial consultation on ‘issues and options’ is timetabled for winter 2018/19 with a draft plan (Reg 18) consultation timetabled for winter 2019/20.²⁰ Whilst there is no information available, it is readily apparent that there is very limited undeveloped land within the Borough, which gives rise to a high risk of unmet need.</p>
Chelmsford	Examination	<p>The Local Plan was submitted for examination June 2018.²¹ The plan allocates sites sufficient to provide for up to 20% above OAHN <i>“[t]o provide flexibility in the supply of housing sites and help significantly boost its supply.”</i> There is no suggestion that the intention is to provide for unmet needs from elsewhere.</p>

¹⁷ Regulations 18 and 19 of the Local Planning Regulations (2012) establish the regulatory framework for Local Plan-making prior to submission to the Secretary of State for independent examination by a Planning Inspector. Requirements under Regulation 18 are flexible, but it is typical to hold at least one formal consultation. Regulation 19 is the formal ‘publication’ stage.

¹⁸ See para 1.17 at www.thurrock.gov.uk/sites/default/files/assets/documents/localplan_issuesoptions1_201602_comments.pdf

¹⁹ See <https://www.rochford.gov.uk/new-local-plan-issues-and-options-document-and-draft-sustainability-appraisal>

²⁰ See <https://www.southend.gov.uk/localplan>

²¹ See <https://www.chelmsford.gov.uk/planning-and-building-control/planning-policy-and-new-local-plan/new-local-plan/>

Council	Next Stage ¹⁷	Commentary (including key issues for Brentwood)
Epping Forest	Submission	The Local Plan was recently submitted for examination. The plan provides for 11,400 homes, a shortfall of c.1,100 against OAHN to reflect Green Belt and other constraints, with arrangements in place to distribute the unmet need to elsewhere within the HMA. ²²
LB Havering	Examination	The Local Plan was submitted for examination in March 2018. ²³ The plan provides for 17,550 new homes, in-line with the minimum requirement of the adopted London Plan (2015). The proposal is not to provide for above the minimum, in order to close the gap between supply and need across London (which is an option that the adopted London Plan requests Councils to consider), or to reflect the higher need figure identified by the North East London SHMA (2016). ²⁴
London Plan	Examination	<p>The new London Plan was published consultation in December 2017, with the GLA subsequently appointing a panel of Planning Inspectors to examine the plan (the regulatory framework differs to that for Local Plans).</p> <p>The plan aims to provide for 65,000 new homes per annum over the plan period (2019-2041), which is a 53% increase on the current London Plan, but falls short of the housing need figure of 66,000 new homes per annum identified by the London SHMA (2017).</p> <p>This led Brentwood Borough Council to respond to the Draft London Plan consultation as follows: “...Brentwood welcomes the commitment made in the London Plan to meet ambitious housing targets, however clarification is needed as to how the London Plan will address the 1,000 dwelling per annum that cannot be accommodated within Greater London. The Council raises concerns about the ability of the London Plan to meet identified housing targets considering how the previous London Plan has failed to meet its housing targets. Therefore, clarification is sought as to how housing targets will be managed and the procedure(s) for triggering a review.”²⁵</p> <p>Delivery concerns are also raised by other organisations, noting that the plan only allocates the 65,000 annual target amongst boroughs for the first ten years of the plan period; and also noting that delivery of the target relies on ability to deliver at significantly higher densities and also at significantly more small sites.²⁶</p>

²² See <http://www.efdclocalplan.org/>

²³ See <https://www.chelmsford.gov.uk/planning-and-building-control/planning-policy-and-new-local-plan/new-local-plan/>

²⁴ See https://www.havering.gov.uk/info/20034/planning/183/planning_policy/12

²⁵ See <https://www.london.gov.uk/what-we-do/planning/london-plan/new-london-plan/consultation-responses-draft-new-london-plan>

²⁶ See for example <https://www.london.gov.uk/sites/default/files/Home%20Builders%20Federation%20%282320%29.pdf>

Distribution

N.B. the focus of the discussion here is in relation to distribution of **greenfield** development. With respect to brownfield development, it almost goes without saying that there is a need to maximise all opportunities that exist.

- 5.2.7 A number of broad distribution priorities can be gleaned from the June 2018 South Essex Joint Strategic Plan Statement Of Common Ground (SoCG). Specifically, the document lists five 'Strategic Opportunity Areas', of which the following relate to Brentwood -
- **The A127 Transport Corridor** - the SoCG explains that: *"The A127 provides a strategic east to west transport route across the sub-region stretching from Southend to the London Borough of Havering (LBH) in east London with direct access to the M25, A130 and A13... The route already experiences significant capacity issues, particularly at key junctions. With the right investment this strategic corridor has the potential to unlock significant new business, employment and residential opportunities... These improvements will be key to realising the 'Strategic Areas of Opportunity', including Basildon Enterprise Corridor. the economic potential of London Southend Airport and Southend on Sea as a major resort and visitor destination."*
 - **Crossrail connectivity / A12 / A129** - the SoCG explains that: *"As part of the consideration of long term spatial options, the authorities are considering the potential for new 'Garden' communities. These and other economic opportunities in the subregion would be dependent upon significant investment in improving its road and rail transport infrastructure. The opening of the Elizabeth Line through central London offers major advantages in terms of connectivity to the new 'Garden' communities, joining up business and employment opportunities as far afield as Reading, and for improving linkages between London Southend Airport to London City and Heathrow Airport."*
- 5.2.8 These broad distribution priorities tally with those that fed into development of Preferred Allocations (2018), with the Interim SA Report (2018) explaining (as part of the 'outline reasons' for arriving at reasonable spatial strategy alternatives) that: *"There is a fairly well established broad spatial strategy, which is one focused primarily on the A12 and A127 transport corridors. The A12 corridor contains the main urban area, whilst the A127 corridor is rural (albeit at the western extent is M25 J29, and to the east is Basildon); however, the A127 corridor may be as well suited to growth as the A12 corridor, if not more so."*
- 5.2.9 A key issue for the Brentwood Local Plan relates to the **balance of growth** between the two corridors, and hence this has repeatedly been a matter for close examination as a 'variable' across reasonable spatial strategy alternatives.
- 5.2.10 In light of most recent consultation responses, there is a need to consider -
- spatial strategy options that would involve growth along the A12 corridor over-and-above the January 2018 preferred approach (which itself represented an increase on the approach proposed at the 2016 Draft Plan stage) to reflect concerns raised by Thurrock Council through the 2018 Preferred Allocations consultation - see **Box 5.4**;
 - spatial strategy options that would minimise pressure on problematic links and junctions on the strategic road network to reflect concerns raised by Highways England through the 2018 Preferred Allocations consultation, and concerns raised through recent Transport Assessment work - see **Box 5.5**; and
 - the questions posed by the Essex County Council consultation responses - see **Box 5.6**.

Box 5.4: Thurrock Council views on broad distribution

As stated at the outset of the response: *“Thurrock Council is concerned with regard to the spatial strategy and the levels of growth proposed in the A12 and A127 corridors and considers that Brentwood Council has not thoroughly tested all reasonable options.”*

The response goes on to question the decision to rely upon a new settlement, rather than relying more (or solely) on urban extensions to existing settlements, stating: *“It is unclear why the spatial strategy should advocate a free-standing greenfield settlement in the Green Belt and that this should be the preferred location for development compared to existing settlement expansion or green field urban extensions which are likely to be more sustainable and closer to existing transport and other existing infrastructure...”* This in itself is an important broad distribution consideration, and one that is returned to within Sections 5.3 & 5.5.

The response goes on to state that: *“Thurrock Council considers that the most appropriate spatial strategy would be a variation of the previous options with growth including Green Belt release concentrated in the A12 Brentwood/Shenfield corridor but with some potential for Green Belt release at West Horndon.”* This statement goes beyond broad distribution to discuss site specifics, but the key point to note is support for increased growth along the A12 corridor, and decreased growth along the A127.

Support for this shift in strategy is also evident from subsequent discussion of -

- **Opportunities within the A12 corridor -**

“Thurrock Council considers there is further significant potential to provide housing and other development in the A12 Corridor Broad Area including the potential for urban edge expansion of settlements... The A12 widening and delivery of Crossrail will bring about significant increased capacity and accessibility improvements to transport infrastructure for Brentwood in the A12 Broad Corridor during the later-part of the plan period. This will make the A12 Corridor broad area more suitable for development opportunities.”

- **Constraints within the A127 corridor -**

“The Green Belt west and east of West Horndon meets the purposes of the Green Belt including preventing urban sprawl and coalescence between Basildon and West Horndon in the east and from West Horndon westwards to Cranham and Upminster in London.”

“The A127 is at capacity... and does not represent a better road transport alternative to the A12...”

Box 5.5: Implications of transport network traffic constraints for broad distribution

Highways England commented through the January 2018 consultation that -

“It is considered that the provision of a number of strategic residential and employment locations in or close to the town centre could help to encourage sustainable travel and reduce the pressure on the highway network, which is welcomed. In particular, development located in close proximity to Rail Stations is welcomed as it could encourage long distance trips to shift away from private car use. The A12 highway corridor also runs alongside the railway corridor and therefore this provision could help reduce the reliance of new residents and employees on private vehicle use.

*However, it is also noted that some development sites are located in close proximity to the M25 and A12 corridors and therefore consider that these could potentially have a notable impact on the number of trips at the junctions. I consider that the proposed development locations could have a notable impact on the SRN, particularly on **M25 Junction 28** and **Junction 29**, as well as **A12 Junction 12...***

Subsequent to the January consultation the Council commissioned a detailed Transport Assessment, which examines capacity at 29 key junctions across the Borough in the AM and PM peak period, with capacity modelled for the baseline and for three future scenarios: 1) a reference scenario involving only background growth in traffic; 2) a scenario involving proposed Local Plan allocations (i.e. the January 2018 Preferred Allocations with minor modifications); and 3) a scenario involving proposed Local Plan allocations along with a range of mitigation measures, both hard (i.e. new infrastructure) and soft (e.g. measures in support of public transport and walking/cycling).

The strongest message to come out of the assessment is that M25 Junction 28 (**A12**) is set to be well over-capacity, with the Study finding the junction to be operating (AM peak) at 220% of capacity under the future reference scenario and 375% under both the future Local Plan scenario and the 'with mitigation' scenario. The proposed committed improvements to the M25 junction 28 are to create a new two-lane loop road with a hard shoulder for traffic travelling from M25 to A12, widen the M25 anti-clockwise carriageway to facilitate the new loop road and reconfigure the A12 to accommodate two lanes joining the A12 eastbound from the proposed loop road. However, the Study nonetheless finds that the junction will remain well over-capacity.

The next strongest message relates to M25 Junction 29 (**A127**), which the Study finds to be operating (AM peak) at 153% of capacity under the future reference scenario, at 209% under the future Local Plan scenario and at 202% under the 'with mitigation' scenario. The committed mitigation measures at this junction aim to improve the junction's operation with the introduction of the Brentwood Enterprise Park; however, there is a complicating factor given the recently published proposal for a new M25 Junction 3km to the south to link the M25 with the new Lower Thames Crossing, and the associated proposal for necessary upgrades to M25 J29. In many respects this is good news for the A127 corridor, as it should assist with movements to and from the M25; however, there are a range of detailed considerations.

The third strongest message to come out of the assessment relates to the two other main junctions on the **A127** through Brentwood Borough, namely the junctions with the B186 and A128. Both are found to be significantly over capacity under the future scenarios without mitigation, although the A127/B186 junction has capacity under the 'with mitigation' future scenario.

Box 5.6 Essex County Council views on broad distribution

The County Council's comments on 'spatial strategy' begin with statements of support for providing for housing needs in full, and maximising opportunities at brownfield sites (with a caveat in respect of existing and new social and physical infrastructure capacity).

This is followed by statement that: *"ECC acknowledges that BBC will need to be satisfied that the Local Plan is supported by a proportionate evidence base and that all reasonable alternatives have been considered. See ECC earlier commentary on the SA."* The 'earlier commentary on the SA' is detailed and helpful; however, it does not in itself provide views on broad distribution preferences or concerns.

The response in relation to 'spatial strategy' then concludes as follows: *"Following its response to the 2016 consultation, ECC continues to seek further clarification on a number of issues in relation to the proposed spatial strategy including: how the A127 Corridor provides more opportunities for growth than the A12 Corridor; identification of any cross border implications of the spatial strategy given its role as highway, education, minerals and waste, and lead local flood authority, and public health responsibilities; identification of what infrastructure is necessary to deliver the spatial strategy, strategic and individual site allocations; and a full assessment of the highway and transportation implications of the proposed spatial strategy, both in terms of the impacts of the individual preferred site allocations, and cumulatively. ECC therefore withholds support until the appropriate highway modelling has been undertaken, to assess both the site specific and cumulative impacts of such developments on the local, and wider highway network."*

From this statement it is possible to glean that highway network considerations must be a foremost consideration when arriving at reasonable spatial strategy alternatives, and the statement also serves to confirm that there is a need to test spatial strategy options involving a redistribution of growth **away from the A127 corridor / towards the A12 corridor** (relative to the Preferred Allocations distribution).

This conclusion is corroborated by the following statement made by the County Council under the Transport and Highways heading of their response: *"The A127 is a vitally important primary route for the South Essex area which connects the M25, Brentwood, Basildon and Southend (including London Southend Airport). A major aim of ECC is to improve journey time reliability along this route. There is significant growth planned along the A127 corridor in adopted and emerging Local Development Plans along its entire route, which will need to be considered in any highway modelling in terms of capacity, key junctions and access."* No equivalent concerns are raised in respect of the A12 corridor.

5.3 Strategic site options

5.3.1 Throughout the recent evolution of the Brentwood Borough Local Plan there has always been an intention to deliver at least one large-scale, strategic site (likely for a mix of uses, to include both housing and employment), recognising that the alternative of piecemeal Green Belt development dispersed widely has significant draw-backs (this option was appraised within the 2013 Interim SA Report). Support nationally for focusing growth at strategic sites was affirmed by the new NPPF (2018), with paragraph 72 stating -

“The supply of large numbers of new homes can often be best achieved through planning for larger scale development, such as new settlements or significant extensions to existing villages and towns, provided they are well located and designed, and supported by the necessary infrastructure and facilities... [Authorities] should:

a) consider the opportunities presented by existing or planned investment in infrastructure, the area’s economic potential and the scope for net environmental gains;

b) ensure that their size and location will support a sustainable community, with sufficient access to services and employment opportunities within the development itself (without expecting an unrealistic level of self-containment), or in larger towns...;

c) set clear expectations for the quality of the development and how this can be maintained (such as by following Garden City principles), and ensure that a variety of homes to meet the needs of different groups in the community will be provided;

d) make a realistic assessment of likely rates of delivery, given the lead-in times for large scale sites, and identify opportunities for supporting rapid implementation...; and

e) consider whether it is appropriate to establish Green Belt around or adjoining new developments of significant size.”

5.3.2 A number of strategic site options have been examined over recent years, including through consultation and SA work, such that there is now a refined understanding of those sites that are genuine (‘reasonable’) contenders for allocation through the Local Plan. Specifically, at the current time, there is a need to give close consideration to the following two options -

- **Dunton Hills Garden Village** - the option of developing a new community between West Horndon and Basildon has been given close examination since 2015. The option featured in the appraisal of reasonable spatial strategy alternatives reported within the 2015 and 2016 Interim SA Reports, plus there was the Dunton Garden Suburb consultation in 2015. Dunton Hills Garden Village featured as a central part of the spatial strategy proposed at the 2016, and then support for the scheme was given a boost in January 2017, when it was selected by Government as one of 14 nationally to receive funding and other support, with a view to supporting delivery. The scheme then received further funding from Government in 2017; and, throughout 2017, a range of work-streams were progressed to examine issues and options (e.g. in relation to capacity, masterplanning, infrastructure needs and phasing).

Subsequently, the site featured within the spatial strategy proposed by the ‘Preferred Site Allocations’ consultation document in January 2018, with a range of consultation responses received from stakeholder organisations and individuals, both in support of the scheme and in opposition. In particular, neighbouring authorities have a keen interest in the site, noting that it is located at the very south-east corner of Brentwood Borough, very close to the boundary with Basildon and Thurrock. Key messages contained within responses received from Basildon and Thurrock are presented in **Boxes 5.6 and 5.7**.

Work to develop the evidence-base in support of the scheme continued following the consultation, notably: XYZ. In light of this detailed evidence-base work, the current view is that the site has a total capacity of 4,000 to 4,500 homes, and the ability to deliver **2,500 homes** in the plan period. Further land has been submitted to the north of A127 (Land to the north of the A127, 65ha); however, there is not considered to be any need to consider the possibility of extending the site, as previously published.

- **West Horndon** - the option of developing a strategic extension to West Horndon featured in the appraisal of reasonable spatial strategy alternatives reported within the 2015, 2016 and 2018 Interim SA Reports, and prior to that was presented as a preferred option within the 2013 Preferred Options consultation document (which pre-dated the emergence of Dunton Garden Suburb/Village proposals). The Council has repeatedly found the scheme to be sequentially less preferable to Dunton Hills Garden Village; however, equally the Council has always recognised that West Horndon does have certain merits as a location for strategic growth (including as highlighted through SA work). Subsequent to the 'Preferred Allocations' consultation it was deemed reasonable for the option of a strategic allocation at West Horndon to remain in contention.

A final point to note is that two separate sites in West Horndon are actually being promoted, with land to the west being promoted for **900 homes** (with the same developers also promoting a linked strategic site to the southwest of the village, within Thurrock); and land to the east being promoted for **600 homes**. Alternative quantum figures have been considered in the past, but following the Preferred Allocations consultation it was deemed appropriate to accept the figures submitted by site promoters.

Box 5.6: Basildon Council views on Dunton Hills Garden Village

A primary concern relates to infrastructure provision, with Basildon Council *“apprehensive that the scale of development proposed, which amounts to over a third of the borough’s entire housing provision for the plan period, could be supported by infrastructure in the absence of a clear delivery plan.”* More specifically, there are concerns regarding *“how it will relate in terms of access and connectivity to the Basildon urban area given the nearest town centre and acute healthcare facilities are all within Basildon Borough”*. By way of context, Basildon Council explains that: *“Infrastructure is of considerable importance within the Basildon Borough, and the delivery of new and improved infrastructure to support new development will be a key factor in determining whether or not the Council will be able to meet its [OAHN].”*

The response goes on to explain the full breadth of concerns as relating to *“landscape, education, healthcare and highways infrastructure in the Basildon Borough, and the mitigation required.”* The responses then concludes as follows: *“The proposals in Basildon and Brentwood Boroughs could, without careful planning and site allocation choices lead to settlement coalescence and inadequate access to appropriate infrastructure, which in turn could have implications on the quantum of development that can be brought forward in this location on both sides of the boundary. In light of this, it is recommended that [the Councils] should continue together under the Duty to Cooperate... to prevent coalescence of place, and address any infrastructure concerns in a more joined up manner.”*

Box 5.7: Thurrock Council views on Dunton Hills Garden Village

The following is a brief summary, with select quotes used to highlight the breadth of issues raised.

- Lack of technical evidence - a concern is that detailed evidence has been slow to emerge.
- The concept of the Garden Village - *“[T]he location does not have any public transport such as a railway station other infrastructure or services compared to existing settlements.”*
- Masterplan approach - a concern is that the Local Plan will not present a masterplan.
- Green Belt Issues - concerns relate to potential cumulative impacts on the gap between Upminster and Basildon, along with growth at West Horndon, Brentwood Enterprise Park and Basildon.
- Landscape Impact - *“a much greater negative impact on the landscape than stated...”*
- Deliverability and phasing - suggest that long infrastructure lead-in times will mean limited housing delivery in the short to medium term, potentially with implications for the committed housing trajectory.
- Viability - *“There must be serious questions about the market ability to absorb such a large scheme...”*
- Impact on Thurrock Housing Market - *“[due to] scale and location close to potential broad locations in Thurrock (e.g. South Ockendon/North East Grays/East Tilbury).”*
- Infrastructure and public funding - *“[I]t would potentially divert already limited public resources...”*
- Road traffic impact and transport evidence - various concerns are raised.
- Sustainability Appraisal of the Site - *“It is noted the Dunton Hills Garden Village site scores poorly across a range of SA criteria... when compared with other sites in the site options findings...”*

- 5.3.3 The strategic site options discussed above can be considered reasonably in contention at the current time, and so are discussed further in **Section 5.5**.
- 5.3.4 Several **other strategic site options** have been examined closely in the past (as reported in past Interim SA Reports), but can be ruled-out as unreasonable at the current time -
- North of Brentwood - the option of developing a strategic extension to the north of Brentwood has never been submitted to the Council, or formally considered through the HELAA, but featured in the appraisal of reasonable spatial strategy alternatives reported within the 2015, 2016 and 2018 Interim SA Reports. The 2018 Interim SA Report identified numerous issues/impacts, in particular in respect of transport impacts given the clear challenges that exist in respect of delivering the major upgrades that would prove necessary, and no consultation responses were received that serve to allay concerns. Indeed, no consultation responses were received in support of a North Brentwood strategic allocation at all, with the numerous land-owners not having come together to establish a strategic scheme for the area as a whole. As such, it was decided, subsequent to the consultation, that a strategic allocation could be ruled-out as unreasonable, for the purposes of establishing reasonable spatial strategy alternatives.
 - East of the Brentwood urban area - a very large site named “Land to the East of Running Waters, Hutton” was submitted some years ago; however, the site does not relate well to the existing urban edge, with no proposed scheme layout ever having been submitted. Furthermore, no information was submitted to address the concerns raised through analysis presented within the 2015 and 2016 Interim SA Reports. As such, the scheme was ruled-out as unreasonable in late 2017, when establishing the reasonable spatial strategy alternatives that featured within the January 2018 Interim SA Report, and no consultation responses were received through that consultation in support of the scheme.
 - Pilgrims Hatch - there is potentially a strategic opportunity to deliver targeted enhancements to community infrastructure; however, it is difficult to envisage a scheme, on the basis of sites identified through the HELAA. Furthermore, as per north of Brentwood, there is uncertainty regarding precisely how necessary major road infrastructure upgrades would be achieved. It was explicitly, ruled-out in late 2017, when establishing the reasonable spatial strategy alternatives that featured within the January 2018 Interim SA Report (see para 6.3.3 of that report), and no consultation responses were received through that consultation to the contrary.
- 5.3.5 For completeness, it is also appropriate to highlight the two other large (60ha+) sites that are available at the current time -
- Land to the north of the A127 (65ha) - which has already been discussed above, as a feasible northern extension to Dunton Hills Garden Village. This land performs poorly in Green Belt terms, given the weak nature of the northern boundary (hedgerows and a small stream), and is subject to a significant constraints in the form of Friern Manor Wood LWS, proximity to Thorndon Park Conservation Area, and onsite footpaths/bridleways. No scheme has been submitted to the Council that would address these constraints, and indeed no scheme involving this land has been submitted at all.
 - Heron Hall, Herongate (236ha) - comprises much (but not all) of the land to the east of Ingrave, north of the Billaricay Road and west of Blind Lane. The site performs poorly in Green Belt terms, noting the impact to the Green Belt gap between Brentwood/Shenfield and Basildon, and also the lack of any potential hard/defensible boundary at the site’s northern edge. The site also performs poorly in transport terms, noting the challenge of achieving suitable access onto the A128, which, in any case, is not a strategic transport corridor as per the A12 and A127. Also, there are significant heritage constraints, noting that the site surrounds grade 2* listed Heron Hall,²⁷ and given proximity to Herongate and Thorndon Park conservation areas. The network of footpaths crossing the site is also of note. No scheme has been submitted to the Council that would address these constraints, and indeed no scheme has been submitted at all.

²⁷ See <https://historicengland.org.uk/listing/the-list/list-entry/1016861>

5.3.6 The seven strategic site options discussed above (both 'reasonable' and 'unreasonable') are shown in **Figure 5.2**. Notes on the figure are as follows -

- The extent of the 'West Horndon East' site shows the extent of land that has been made available in the past; however, the most recent scheme submitted by the site promoter shows the northwestern and northeastern sectors of the land parcel removed.
- The extent of a Brentwood North strategic site is open to debate. There would be the potential to work proactively with land-owners to make land available.
- Pilgrim's Hatch is identified loosely as an area that could potentially grow in more than one direction (perhaps less so the northwestern sector, which is most constrained in heritage, biodiversity, and potentially landscape terms); however, there would be a concern that growth in more than one direction would equate to 'piecemeal' expansion. It is less clear that there is an opportunity for truly strategic expansion in any one direction.

5.3.7 Other strategic growth options have also been discussed, during meetings between Officers and AECOM, but all were judged to have clear drawbacks, in both sustainability and delivery terms, such that they undoubtedly perform sequentially poorly as options, and hence can be considered 'non-starter, options for the current Local Plan. For example -

- West of Brentwood - would impact the sensitive Green Belt gap to LB Havering, plus there are significant heritage and biodiversity constraints.
- Southeast of Ingatestone - not on Crossrail (albeit with a good train service) and the railway serves as a robust Green Belt boundary. Also heritage constraint in the form of Ingatestone Hall (grade 1 listed) and other listed buildings (including grade 2*).
- North of the Borough - a rural area with poor transport links, and wide ranging environmental constraints/sensitivities, such that any strategic growth option identified would be found to be sequentially less preferable to options focused on a strategic transport corridor. There are areas of agricultural land (mainly of grade 2 quality) that might link fairly well to Chelmsford, and there is a cluster of linked villages where the option of rationalisation through strategic growth might feasibly be envisaged; however, no particular opportunities have been highlighted.

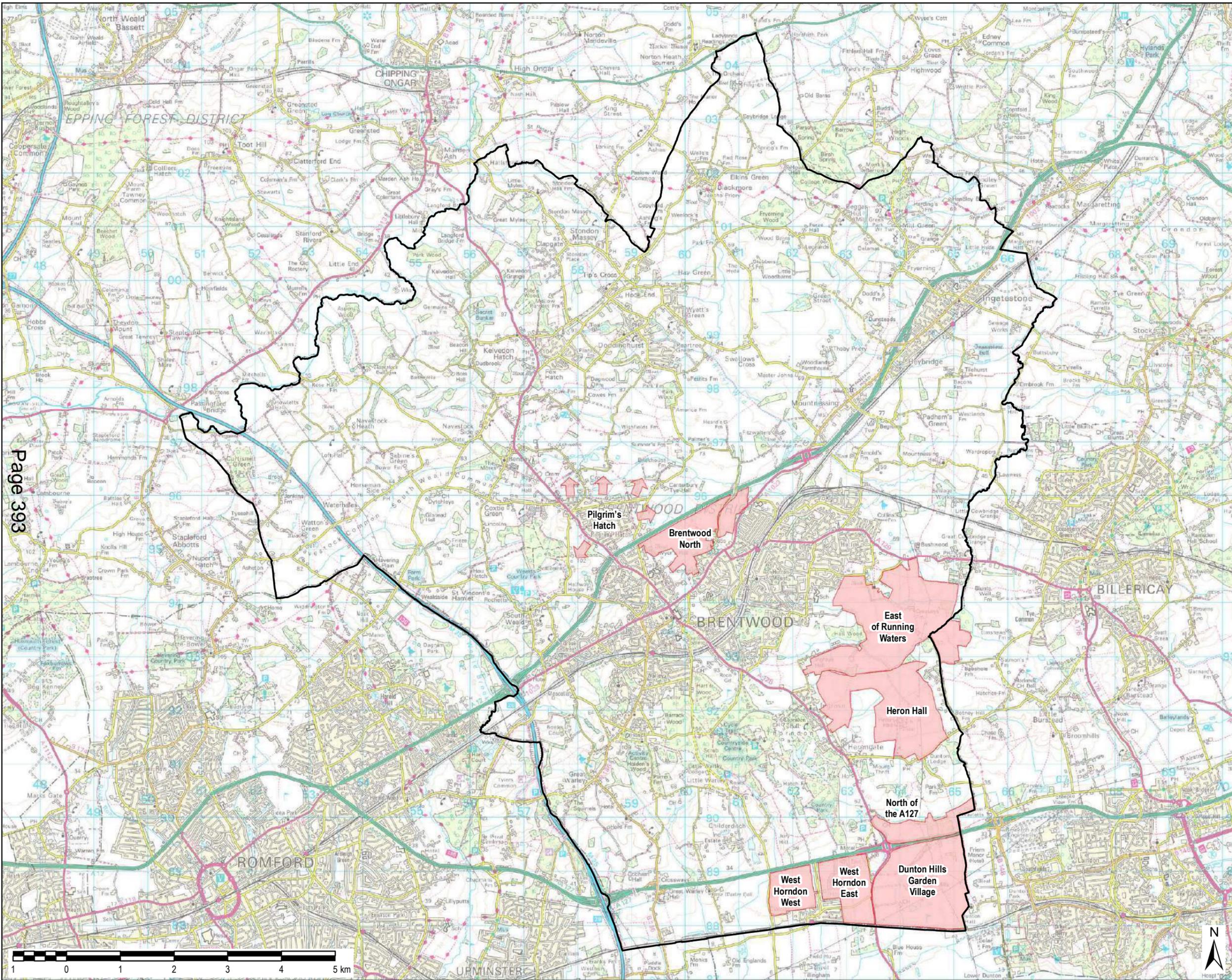
5.4 Smaller site options

5.4.1 There is also a need to give consideration to the large number of smaller site options that have been submitted to the Council (otherwise known as 'HELAA sites' in that they are sites that have been considered through the Council's Housing and Economic Land Availability Assessment, HELAA). As per the discussion of strategic site options, the aim is to identify a shortlist of sites that are reasonably in contention for allocation, and hence should be taken forward for further consideration, i.e. discussion in **Section 5.5**.

5.4.2 Various work-streams have focused on the task of examining the merits of individual site options in isolation, including analysis of proximity to constraint (e.g. SSSI) and opportunity (e.g. school) features using GIS software - see **Appendix III**.

5.4.3 **Figure 5.3** shows the location of all HELAA sites. Notes on the figure are as follows -

- The figure highlights those HELAA sites that either have planning permission or are discounted through the HELAA process for quite clear and unambiguous reasons, i.e. sites that are unavailable, undeliverable, isolated or associated with a tier 4 village.
- The figure also highlights sites ruled-out by the HELAA as unsuitable on the basis of being subject to a clear-cut constraint (in practice either flood risk or heritage).
- The figure also highlights sites below 2ha in size, which can reasonably less of a focus of SA work given that their size should mean limited potential for significant effects.
- The remaining sites are a focus of discussion in Section 5.5.



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LEGEND

- Brentwood Borough Boundary
- Strategic Site Options

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File Name: K:\5004 - Information Systems\60482815 Brentwood Site Appraisal\project_files\Figure 5.2 Strategic Site Options.mxd

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Drawing Title **STRATEGIC SITE OPTIONS**

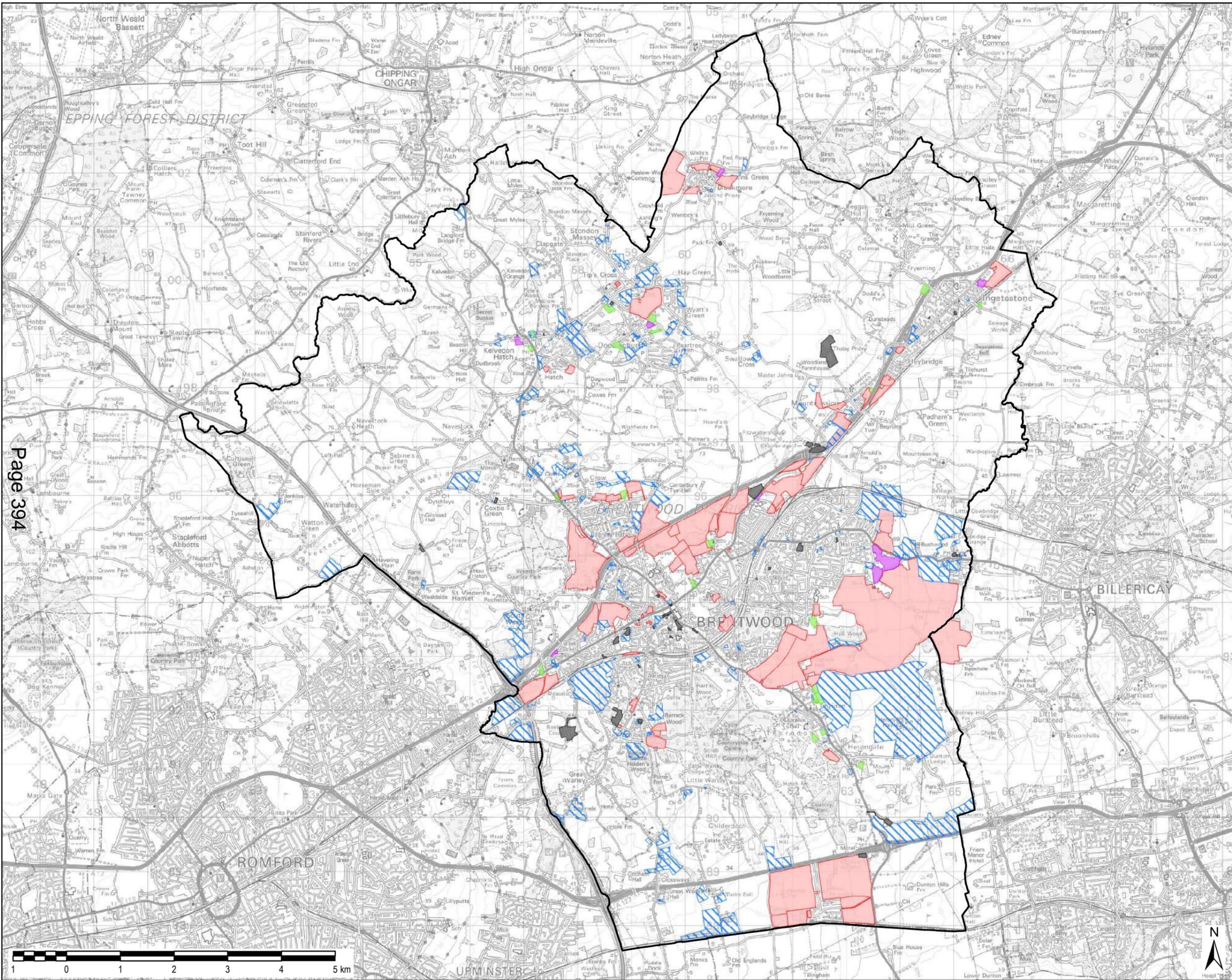
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LEGEND

- Brentwood Borough Boundary
- Commitment
- Discounted HELAA Site
- Discounted HELAA Site (Unsuitable)
- Remaining HELAA Site
- Site Below 2ha

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5.5 Sub-area options

Introduction

- 5.5.1 Having discussed “top down” factors (housing quantum and broad distribution) and “bottom-up” factors (strategic and non-strategic site options), there is a need for one final discussion ahead of establishing reasonable spatial strategy alternatives.
- 5.5.2 Specifically, there is a need to consider each of Borough’s sub-areas in turn, examining the site options that exist, and the ways in which they might be delivered in combination.

N.B. to reiterate, this section is **authored jointly** by the Council and AECOM.

Brentwood Main Urban Area

- 5.5.3 The 2016 Draft Plan proposed allocation of 11 sites within the urban area (ten brownfield; one greenfield; 740 homes), and five urban extensions (one brownfield; four greenfield). The January 2018 Preferred Site Allocations document then presented an adjusted strategy, most notably with the addition of four Green Belt sites (also the removal of four undeliverable brownfield sites, reduced yield from four greenfield sites and additional yield from four brownfield sites). The net effect of these adjustments was a proposal, within the Preferred Site Allocations consultation document, to provide for a significantly increased number of homes in and around the Brentwood Main Urban Area, relative to the 2016 Draft Plan.
- 5.5.4 Throughout 2018 the Council worked to explore potential adjustments to the strategy, as previously published, with the Council reaching the tentative conclusion that all of the January 2018 allocations remain suitable. As such, it was recognised that the January 2018 allocations could be taken as the **default** strategy, to be explored further through the appraisal of reasonable spatial strategy alternatives.
- 5.5.5 The next task was to give consideration to the possibility of **deleting** one or more of the default allocations. Specifically, the task was to identify any default allocations that are more contentious - i.e. where the decision to allocation is less clear cut.
- 5.5.6 In doing so, attention naturally focused on the nine sites within the Green Belt; however, following discussion between the Council and AECOM (taking account of appraisal findings presented in Chapter 10 of the January 2018 Interim SA Report), all nine sites were determined to be suitably justified,²⁸ on the balance of evidence.
- 5.5.7 Honeypot Lane (200 homes) can be taken as an example. There is a strong level of opposition from local residents, but allocation is justified given -
- A) proximity to the town centre;
 - B) absence of constraints that cannot be addressed through development management;²⁹
 - C) strong containment in Green Belt terms, with defensible boundaries on all sides; and
 - D) a lack of alternative brownfield capacity to fill the gap in supply that would result from removal of the site, meaning that there would be pressure to either A) allocate an alternative Green Belt site, which, in all likelihood, would perform worse in Green Belt and/or sustainability terms; or B) increase reliance on delivery of housing at one or more strategic schemes, which would increase the delivery risk associated with the plan, and also give rise to additional Green Belt and/or sustainability issues.

²⁸ i.e. justified to the extent that the question of allocation was not considered to warrant further detailed consideration through the appraisal of reasonable spatial strategy alternatives, recognising the need to be selective.

²⁹ Most notably, there is surface water flood risk associated with the small water course running through the site. Discussions with site promoters have confirmed the ability to avoid built development in this area and deliver a package of Sustainable Drainage Systems (SuDS) measures, to include new wetlands with attenuation ponds linked to exiting wet woodland.

- 5.5.8 The justification for the other eight sites follows a similar reasoning, with reasons (B), (C) and (D), in particular, applying strongly to all. In respect of reason (A), three sites can be identified that are not well related to the town centre (or existing community infrastructure more generally);³⁰ however, all are very well contained in Green Belt terms (again, with no need to rely on any soft boundary, e.g. a field boundary). Furthermore, two of these sites will be brought forward in combination with adjacent Officer's Meadow (510 homes), in such a way that it should be possible to fund and deliver a new primary school.
- 5.5.9 In conclusion, the option of deleting one or more of the default allocations was determined to be 'unreasonable', for the purposes of establishing reasonable spatial strategy alternatives.
- 5.5.10 Finally, there was a need to give consideration to the possibility of **adding** one or more omission sites.³¹ The HELAA lists a large number that might feasibly be allocated; however, it was possible to immediately rule out those that the HELAA discounts for being unavailable, too small or isolated (see Figure 5.3), noting the following -
- There is one exception, i.e. one unavailable site that cannot be ruled-out, but rather should be taken forward for further consideration, namely the Brentwood Centre, which is a 20ha comprising a leisure centre and surrounding land. The Council's Leisure Strategy and Action Plan 2018-28 commits to enhancements including the creation of a football hub at the Brentwood Centre with 3G pitches;³² however, the Strategy is also mindful of the need to "consider alternative management options" and achieve "a more financially sustainable service". As such, it is difficult to rule-out the option of delivering enabling housing on the site. It is considered further below.
 - Land to the east of Mascalls Lane is worthy of special mention due to its scale (48ha), its relationship to the Brentwood Main Urban Area (it lies between Mascalls Lane, the railway and the built form of Warley) and the feasibility of establishing a defensible Green Belt boundary. The site is unavailable due to restrictive covenants on the land, including on the northeastern-most 21ha, which was established as Warley Country Park in 2001 (following Warley Hospital's development for housing). Furthermore, the site is subject to constraint in the form of extensive scrub / secondary woodland, and there are also thought to be extensive views to the north (potentially to the church at South Weald).
- 5.5.11 This left a shorter list of 39 omission sites, from which it was also possible to rule out a further 13 sites below 2ha in size;³³ and a further 4 sites that are discounted by the HELAA for quite clear suitability reasons.³⁴ These sites can be seen in Figure 5.3.
- 5.5.12 This left a shortlist of 29 sites, each of which was examined further - see **Appendix IV**.
- 5.5.13 The outcome of the analysis presented within Appendix IV was a final shortlist of omission sites, which were then subjected to further analysis - see **Table 5.2** - with the conclusion reached that three omission sites should be taken forward for further detailed examination through the appraisal of reasonable spatial strategy alternatives.
- 5.5.14 In conclusion, the option of adding one or more omission sites was determined to be 'reasonable', for the purposes of establishing reasonable spatial strategy alternatives, with three omission sites in contention.
- 5.5.15 The **overall conclusion** reached for the Brentwood Main Urban Area was that the approach to growth should be explored further as a **variable** across the reasonable spatial strategy alternatives, with there being a need to explore the default approach alongside one or more higher growth options involving the three highlighted omission sites. This matter is explored further within Section 5.6.

³⁰ East of Chelmsford Rd, S'field (215 homes); East of Nag's Head Ln (125 homes); North of Chelmsford Rd, S'field (100 homes)

³¹ N.B. a North Brentwood strategic scheme should not be considered an omission site. See para 5.3.3.

³² The strategy was approved by the Council on 19th Sept - see brentwood.moderngov.co.uk/mgChooseDocPack.aspx?ID=2051

³³ This is an arbitrary threshold, but was necessary in order to focus attention on sites most likely to result in significant effects.

³⁴ Land adj. Wybarns Farm and Mount Pleasant Cottage, Chelmsford Road, Shenfield (2.13ha; flood zone); East of Hutton Village, Hutton (2.82ha; heritage); West of Church Lane, Hutton (4.23ha; heritage); South west of Rayleigh Road, Hutton (10.81ha; heritage).

Table 5.2: Final shortlist of Brentwood Main Urban Area omission sites

Site	Commentary	Progress to Section 5.6?
The Brentw'd Centre	As discussed at para 5.5.9, this 20ha site is listed by the HELAA as unavailable, as it comprises the Borough's only leisure centre, plus associated land (N.B. adjacent to the west is Bishops Hall Community Centre and associated land, which comprises a further 4.8ha that is also unavailable at the current time). In planning terms it is possible to envisage enabling housing to fund delivery of upgrades to facilities and services; however, there would be a need to rely on a soft Green Belt boundary (in the form of strong hedgerow line), and new homes would not be very well linked to services and facilities in Pilgrim's Hatch and Brentwood town centre. Furthermore, it is not known how many homes would be necessary to deliver necessary upgrades to facilities. In light of the current Council position - as per in the 2018 Leisure Strategy - development cannot be considered a reasonable option for the Local Plan.	No
Sawyers Hall Farm	Two adjacent HELAA sites (a large site, plus a small site to the west; 20.3 ha in total) form the northwestern-most part of the area that has previously been considered (2015, 2016 and 2018 Interim SA Reports) as the North Brentwood strategic site option. The site contains Hopefield Animal Sanctuary, which has led to schemes proposed in the past generating considerable opposition; ³⁵ however, the site promoters have now proposed a masterplan to deliver 450 homes along with relocation of the Sanctuary within the site. ³⁶ The relocated sanctuary, along with certain other proposed measures (e.g. new pick-up/drop-off zone for the schools to the south), could lead to a degree of 'planning gain'. However, development leads to significant Green Belt concerns, and the site is also constrained in other respects, e.g. traffic. The site has pros and cons, but on balance does stand-out as potentially having merit.	Yes
North West of S'field	Two adjacent HELAA sites - a 6.5ha site gaining access from Hall Lane, and a 10.7ha site to the west, with access from Hallwood Crescent - are being jointly proposed to deliver 450 homes. The scheme would benefit from relatively good proximity (c.1-1.5km) to Shenfield Station (Crossrail), and might also perform relatively well in Green Belt terms, as it would be enclosed by built form and woodland / a mature tree belt. However, the site is heavily constrained in biodiversity terms, with the great majority of the land designated as a LWS, and Hall Wood ancient woodland LWS adjacent to the north. There would also be concerns regarding access/traffic, and impacts to the historic core of Shenfield, where there is a cluster of listed buildings.	No
St. Faiths	A site is being promoted for 750 homes that comprises a 15.6ha HELAA site (Land at Weald Road and Honeypot Lane adjacent to former site of St Faiths Hospital); the BT Centre existing employment site to the south, where the Council's intention has always been to formally allocate for employment uses through the Local Plan; and a small additional area of land in-between these two HELAA sites. The site relates very well to Brentwood town centre, and may have some merit in Green Belt terms (although the western part of the site would rely on a soft boundary to two remaining fields, which are unavailable). However, the site is subject to significant biodiversity constraint in that the northern part (i.e. the non-employment part) is a LWS with informal public access. It is also rising land, with views to Weald Country Park to the northwest. The site has pros and cons, but on balance does stand-out as potentially having merit.	Yes
Land off Ongar Road	A site is being promoted for 800 homes that comprises most of the 53ha HELAA site to the west of Pilgrims Hatch, plus a small additional area of land directly to the south (the remaining land stretching down to Weald Lane). A scheme could potentially (subject to land availability) make use of an entire Green Belt parcel that has been assessed by the Green Belt Study Part 2 (2018) as contributing to Green Belt purposes to a 'moderate' extent (only), and the promoters are also proposing to make land available for a primary school. However, the site is significantly constrained in heritage, biodiversity and potentially landscape terms. The site has pros and cons, but on balance does stand-out as potentially having merit.	Yes

³⁵ The Council was handed a petition against development in 2015 with more than 200,000 signatures.

³⁶ See <https://www.essexlive.news/news/essex-news/plans-place-build-450-homes-1895097>

The A127 Corridor

- 5.5.16 The 2016 Draft Plan proposed a 500 home redevelopment of West Horndon Industrial Estate, and a 2,500 home new community within the Green Belt - to the east of West Horndon / west of Basildon - in the form of Dunton Hills Garden Village. The January 2018 Preferred Site Allocations document then presented a modest adjustment to the strategy, with the proposal to deliver an additional 80 homes at the Industrial Estate site.
- 5.5.17 Throughout 2018 the Council worked to explore potential adjustments to the strategy, as previously published, with the Council reaching the tentative conclusion that all of the January 2018 allocations remain suitable. As such, it was recognised that the January 2018 allocations could be taken as the **default** strategy, to be explored further through the appraisal of reasonable spatial strategy alternatives.
- 5.5.18 The next task was to give consideration to the possibility of **deleting** one or more of the default allocations. Specifically, the task was to identify any default allocations that are more contentious - i.e. where the decision to allocation is less clear cut.
- 5.5.19 In doing so, attention naturally focused on Dunton Hills Garden Village. With regards to the other proposed allocation - West Horndon Industrial Estate - allocation was determined to be suitably justified,³⁷ given the brownfield nature of the site.
- 5.5.20 In conclusion, the option of deleting Dunton Hills Garden Village was determined to be 'reasonable', for the purposes of establishing reasonable spatial strategy alternatives.
- 5.5.21 Finally, there was a need to give consideration to the possibility of **adding** one or more omission sites. The HELAA lists several; however, it was possible to immediately rule out those that the HELAA discounts for being unavailable, too small or isolated (see Figure 5.3), noting -
- Several omission sites at Little Warley are ruled-out through the HELAA on account of being isolated. This reflects the fact that Little Warley is a small hamlet with a church but no other services or facilities.
 - Land to the north of the A127 is a notably large site (65ha), ruled-out by the HELAA on the basis of being isolated, that has already been discussed and dismissed in this report (see Section 5.3). It could feasibly form a northern extension to Dunton Hills Garden Village; however, it performs poorly in Green Belt and other terms.
- 5.5.22 This left just the omission sites to the west and east of West Horndon, which it was determined should be taken forward for further detailed examination through the appraisal of reasonable spatial strategy alternatives. N.B. options for growth at West Horndon have already been introduced above, within Section 5.3.
- 5.5.23 In conclusion, the option of adding one or more omission sites was determined to be 'reasonable', for the purposes of establishing reasonable spatial strategy alternatives, with the omission sites at west and east of West Horndon in contention.
- 5.5.24 The **overall conclusion** reached for the A127 corridor was that the approach to growth should be explored further as a **variable** across the reasonable spatial strategy alternatives, with there being a need to explore the default approach alongside one or more lower growth options (involving deletion of Dunton Hills Garden Village) and one or more higher growth options (involving the West Horndon omission sites). This matter is explored further within Section 5.6.

³⁷ i.e. justified to the extent that the question of allocation was not considered to warrant further detailed consideration through the appraisal of reasonable spatial strategy alternatives, recognising the need to be selective.

Ingatestone

- 5.5.25 The 2016 Draft Plan proposed 128 homes across two Green Belt sites and two small urban brownfield sites. The January 2018 Preferred Site Allocations document then presented a modest adjustment to the strategy, with one additional Green Belt allocation proposed.
- 5.5.26 Throughout 2018 the Council worked to explore potential adjustments to the strategy, as previously published, with the Council reaching the tentative conclusion that all of the January 2018 allocations remain suitable. As such, it was recognised that the January 2018 allocations could be taken as the **default** strategy, to be explored further through the appraisal of reasonable spatial strategy alternatives.
- 5.5.27 The next task was to give consideration to the possibility of **deleting** one or more of the default allocations. Specifically, the task was to identify any default allocations that are more contentious - i.e. where the decision to allocation is less clear cut.
- 5.5.28 However, following discussion between the Council and AECOM (taking account of appraisal findings presented in Chapter 10 of the January 2018 Interim SA Report), all three default allocations were determined to be suitably justified,³⁸ on the balance of evidence. All three are very well contained in Green Belt terms, albeit the corollary is that much of the land is bounded by the A12 or the railway, which gives rise to some noise and air pollution concern.
- 5.5.29 In conclusion, the option of deleting one or more of the default allocations was determined to be 'unreasonable', for the purposes of establishing reasonable spatial strategy alternatives.
- 5.5.30 Finally, there was a need to give consideration to the possibility of **adding** one or more omission sites. The HELAA lists several; however, it was possible to immediately rule out those that the HELAA discounts for being unavailable, too small or isolated. The HELAA also rules out one site as undeliverable (North west of Roman Road, 2ha) on the basis of extensive onsite mature trees. Sites discounted by the HELAA are shown in Figure 5.3.
- 5.5.31 The final two omission sites are located to at the northern edge of the village, namely the adjacent 'Parklands' sites (1.8ha and 11.2ha). Neither site is fully contained in Green Belt terms, with the larger site having a very weak boundary at its northern edge (i.e. no field boundary), and the smaller site is also constrained by an adjacent listed building.
- 5.5.32 In conclusion, the option of adding one or more omission sites was determined to be 'unreasonable', for the purposes of establishing reasonable spatial strategy alternatives.
- 5.5.33 The **overall conclusion** reached for Ingatestone was that the default strategy should be a **constant** across the reasonable spatial strategy alternatives.

Villages

- 5.5.34 The higher tier villages (leaving aside West Horndon) are: Blackmore, Doddinghurst and Kelvedon Hatch in the north; Mountnessing between Shenfield and Ingatestone; and Herongate and Ingrave south of Brentwood/Shenfield.
- 5.5.35 The 2016 Draft Plan did not propose allocation of any sites; however, subsequent detailed work by the Council to examine site options - in particular in Green Belt terms - led to the identification of several opportunities. There was also a strategic context, with the 2017 Housing White Paper, which "*expect(ing) local planning authorities to identify opportunities for villages to thrive, especially where this would support services and help meet the need to provide homes for local people who currently find it hard to live where they grew up.*"
- 5.5.36 Specifically, the Council identified seven sites in the northern villages (with the most significant proposal involving 96 homes at two sites to the north of Blackmore), with a total capacity of 169 homes. This strategy was published for consultation in January 2018.

³⁸ i.e. justified to the extent that the question of allocation was not considered to warrant further detailed consideration through the appraisal of reasonable spatial strategy alternatives, recognising the need to be selective.

- 5.5.37 Throughout 2018 the Council worked to explore potential adjustments to the strategy, as previously published, reaching the tentative conclusion that whilst all of the January 2018 allocations remain suitable, there was a need to reduce the number of homes allocated to certain sites, with the net effect of reducing the number of homes to 133. Specifically -
- the yield of the two adjacent sites at Blackmore was reduced by 26 homes to take account of the potential need for surface water flooding measures on site; and
 - the yield of the two adjacent sites in Hook End was reduced by 10 homes to allow for land currently used informally for community uses to be retained.
- 5.5.38 As such, it was recognised that the January 2018 allocations (with total yield reduced to 133 homes) could be taken as the **default** strategy, to be explored further through the appraisal of reasonable spatial strategy alternatives.
- 5.5.39 The next task was to give consideration to the possibility of **deleting** one or more of the default allocations. Specifically, the task was to identify any default allocations that are more contentious - i.e. where the decision to allocation is less clear cut.
- 5.5.40 However, following discussion between the Council and AECOM, all were determined to be suitably justified,³⁹ on the balance of evidence. The January 2018 Interim SA Report (see Chapter 10) highlighted limited issues/impacts;⁴⁰ however, on reflection the issue/impacts raised were considered to be minor, or with the potential for suitable avoidance/mitigation.
- 5.5.41 In conclusion, the option of deleting one or more of the default allocations was determined to be 'unreasonable', for the purposes of establishing reasonable spatial strategy alternatives.
- 5.5.42 Finally, there was a need to give consideration to the possibility of **adding** one or more omission sites. The HELAA lists a number of sites; however, it was possible to immediately rule out those that the HELAA discounts for being unavailable, too small, isolated or associated with a smaller (Tier 4 in the settlement hierarchy) village. The HELAA also rules out six sites as undeliverable, primarily on access grounds;⁴¹ and two sites on the basis of clear-cut (i.e. over-and-above Green Belt) suitability reasons.⁴² Sites discounted by the HELAA are shown in Figure 5.3.
- 5.5.43 This left a shortlist of 18 omission sites feasibly in contention, at which point it was considered appropriate to take the further step of ruling-out a further ten sites below 2ha in size (see Figure 5.3),⁴³ leaving a final shortlist of eight sites. This final shortlist of omission sites was then subjected to further analysis - see **Table 5.3** - with the conclusion reached that none should be taken forward for further detailed examination through the appraisal of reasonable spatial strategy alternatives, also mindful of the strategic context, namely the fact that there are limited strategic arguments for a higher growth strategy at the villages.⁴⁴
- 5.5.44 In conclusion, the option of adding one or more omission sites was determined to be 'unreasonable', for the purposes of establishing reasonable spatial strategy alternatives.
- 5.5.45 The **overall conclusion** reached for the villages was that the default strategy should be a **constant** across the reasonable spatial strategy alternatives.

³⁹ i.e. justified to the extent that the question of allocation was not considered to warrant further detailed consideration through the appraisal of reasonable spatial strategy alternatives, recognising the need to be selective.

⁴⁰ The Interim SA Report noted, in particular, that the proposed extension to Blackmore is constrained by three adjacent or nearby listed buildings, with Blackmore Conservation Area is located c.125m to the south; and also that the two sites at Kelvedon Hatch are seemingly less strongly contained within the landscape (i.e. relative to the other proposed sites at the Northern Villages).

⁴¹ 75 Peartree Lane, Doddinghurst (0.4ha); Land adj. to St. Margaret's Church, Doddinghurst (1ha), Land East of Peartree Lane and North of Peartree Close (1.9ha), Land opposite Button Common, Brentwood Road, Herongate (0.8ha), Land to West of Place Farm Lane, Kelvedon Hatch (9.4ha), Land adjacent to Mountnessing Primary School (1.2ha), Post Field, Redrose Lane, Blackmore, 1.1ha)

⁴² The Hurst, Church Lane, Doddinghurst (1.1ha; Flood zone), Land at Church Road, Kelvedon Hatch (1.5ha; Listed building impact)

⁴³ This is an arbitrary threshold, but was necessary in order to focus attention on sites most likely to result in significant effects.

⁴⁴ Neither Thurrock Council nor Highways England - as the two key organisations expressing concerns regarding growth at one or both of the main transport corridors - nor any other organisation with a strategic interest, suggested higher growth in the rural north is an option that should be explored further. It is also notable that the South Essex SoCG (2018) reaffirms the long held view that Brentwood Borough is "characterised by its village character, a "Borough of Villages" surrounding Brentwood market town at its heart."

Table 5.3: Final shortlist of omission sites at the villages

Village	Site	Commentary	Progress to Section 5.6? ⁴⁵
Blackmore	Land to the South of Blackmore, off Blackmore Road	This 2.7ha site partially intersects the conservation area and is entirely covered by land shown to be at risk of surface water flooding. ⁴⁶ St. Peter's Way long distance footpath also crosses the site, and desire lines elsewhere indicate use for dog-walking.	No
	Land to the East Of Ingatestone Rd	This 6ha site would appear to have notably weak boundaries, with the southern edge passing through the middle of a field.	No
	Land to the West of Blackmore, off Blackmore Road	This 34.6 ha site might almost double the size of the existing village, and it is noted that there is a very weak field boundary (sporadic trees, rather than a hedgerow). The site does benefit from being adjacent to the primary school and village hall, and might deliver new community infrastructure; however, the existing school would appear to have land to expand, should it need to.	No
Doddinghurst	Land to the South Side of Hook End Road	This 21.3ha site comprises the majority of the cluster of fields that is almost entirely surrounded by the villages of Doddinghurst, Wyatts Green and Hook End. As such, it benefits, in Green Belt terms, from being well contained. It is also noted that the site comprises four arable fields and is crossed by only one footpath. However, there would clearly be a significant impact to the character of this group of villages. Furthermore, development at this scale might well fall short of the critical mass necessary to enable delivery of a new primary school.	No
Mountnessing	The Water Meadows	This 2.8ha site is relatively well contained, bounded on one side by existing properties, and on another other by the A12, although a small site is also available to the north, and beyond that are allotments, such that there could be some risk of 'creep'. Proximity to the A12 is a consideration, although it is noted that there is mature vegetation along the road here. Access is proposed along a lengthy driveway to the south, which would run close to a number of existing properties, and meet Church Road at the end of the bridge over the A12.	No
	Land north of Bakers Farm, Roman Road	This 5.5ha site might feasibly deliver frontage development, which might be seen as plugging a gap in the frontage, or possibly a small in-depth scheme. The site includes two large ponds, which presumably could be made more publically accessible (footpaths do already run alongside). However, concerns naturally arise in Green Belt terms, as there would be a need to rely on soft boundaries, i.e. the existing hedgerows.	No
	Land at Drury's Farm, Roman Road	This 11.4ha site is constrained by two on-site grade 2 listed buildings and other listed buildings nearby. There is also onsite vegetation, including a hedgerow and a small group of mature trees. There would again be a soft boundary (a hedgerow) separating the site from adjoining fields to the north and south.	No
Ingrave & Herongate	Land between 55 Middle Road and Brookside Farm	This 3.4ha site would extend Ingrave north, with a need to rely on soft boundaries (hedgerows) to prevent sprawl. The access road is a single track lane.	No
	Long Plantation, Brentwood Road	This 3.4ha site falls within the Thorndon Park Conservation Area and comprises existing woodland (not designated).	No

⁴⁵ To reiterate the point made at para 5.5.42, the decision not to progress sites for further consideration also reflects the fact that there is limited strategic argument for allocating at villages (particularly those that benefit from good access to Brentwood/Shenfield).

⁴⁶ See <https://flood-warning-information.service.gov.uk/long-term-flood-risk/map>

5.6 Establishing the reasonable alternatives

- 5.6.1 In light of the three ‘initial’ steps discussed above (Sections 5.2 to 5.4) and the ‘interim’ step discussed within Section 5.5 (see Figure 6.1 for a summary of the step-wise approach), Officers and AECOM (working in collaboration) were able to establish reasonable spatial strategy alternatives - i.e. a series of alternative packages of site allocations - for appraisal.
- 5.6.2 Section 5.5 has already established which elements of the spatial strategy should be a ‘constant’ across the alternatives, and which a variable. **Table 5.4** presents a summary.

Table 5.4: Constants, variables and potential options

Settlement(s)	Variable or constant?	Options
Brentwood/ Shenfield	Variable	<ul style="list-style-type: none"> • January 2018 allocations • Higher growth through additional allocation of one or more of the three omission sites highlighted
A127 corridor	Variable	<ul style="list-style-type: none"> • January 2018 allocations • Lower growth through deletion of DHGV (with or without additional allocation West and/or East of West Horndon). • Higher growth through additional allocation West of West Horndon N.B. higher growth through additional allocation East of West Horndon is ‘unreasonable’ the resulting lack of a Green Belt gap to DHGV.
Ingatestone	Constant	<ul style="list-style-type: none"> • January 2018 allocations
Villages	Constant	<ul style="list-style-type: none"> • January 2018 allocations (as modified)

- 5.6.3 The list of potential permutations of these options is lengthy, mainly because of the potential for each of the three Brentwood/Shenfield omission sites to either be delivered in isolation (i.e. higher growth through additional allocation of just one site) or in any combination (i.e. the three combinations of two, or the combination of all three). As such, it was considered reasonable (given a need to keep the number of spatial strategy alternatives to a minimum, with a view to supporting public engagement) to examine only one higher growth options for Brentwood/Shenfield, namely additional allocation of all three omission sites in combination.
- 5.6.4 It was also deemed appropriate to apply one further rule to the selection of reasonable alternatives, namely that options involving a package of sites with a total capacity sufficient to provide for the LHN figure of 350 dpa plus a ‘buffer’ of at least 5% can be ruled-out as providing insufficient supply (see Section 5.2), whilst options involving provision for LHN plus a buffer of greater than 50% can be ruled-out as providing for an over-supply.
- 5.6.5 In summary, three rules/assumptions are applied when combining the options introduced in Table 5.4 to form a series of reasonable spatial strategy alternatives -
 - 1) East of West Horndon would not come forward in combination with DHGV⁴⁷
 - 2) The three Brentwood/Shenfield omission sites would be delivered in combination
 - 3) Total quanta should be between LHN plus 5% and LHN plus 50%
- 5.6.6 This list of variables, options and assumptions/rules led to the identification of the reasonable spatial strategy alternatives presented below - see **Table 5.5**.

⁴⁷ N.B. a further assumption/rule was applied when establishing reasonable alternatives in late 2017 (as reported in the Jan 2018 Interim SA Report), namely that East of West Horndon would only ever come forward in combination with West of West Horndon, as it is the more constrained site. However, on reflection it is considered safer not to make this assumption / apply this rule.

Table 5.5: The reasonable spatial strategy alternatives (October 2018)

			Option 1 WH East WH West	Option 2 B'wood/S'field	Option 3 DHGV	Option 4 B'wood/S'field WH East	Option 5 B'wood/S'field WH West	Option 6 DHGV WH West	Option 7 B'wood/S'field WH East WH West	
Completions ⁴⁸			363	363	363	363	363	363	363	
Commitments ⁴⁹			900	900	900	900	900	900	900	
Windfall ⁵⁰			420	420	420	420	420	420	420	
Allocations	Constants	B'wood / S'field	Urban brownfield	1,152	1,152	1,152	1,152	1,152	1,152	1,152
			Urban greenfield	95	95	95	95	95	95	95
			Green Belt	1440	1440	1440	1440	1440	1440	1440
		West Horndon	Urban brownfield	580	580	580	580	580	580	580
			Villages	Ingatestone GB	218	218	218	218	218	218
		Northern Village GB		133	133	133	133	133	133	133
	Variables	B'wood / S'field	Sawyers Hall Farm		450		450	450		450
			St. Faiths		750		750	750		750
			West of Ongar Road		800		800	800		800
		A127	West Horndon East	600			600			600
			West Horndon West	900				900	900	900
			Dunton Hills GV			2500			2500	
	Total			6801	7301	7801	7901	8201	8701	8801
	Total p.a.			400	429	459	465	482	512	518
% over LHN			14%	23%	31%	33%	38%	46%	48%	

⁴⁸ i.e. homes built since the start of the plan period.

⁴⁹ i.e. homes on sites with planning permission or neighbourhood plan allocations (of which there are none in this case).

⁵⁰ i.e. homes anticipated to come forward on unallocated sites.

6 APPRAISAL OF THE REASONABLE ALTERNATIVES

6.1 Summary appraisal findings

6.1.1 **Table 6.1** presents summary appraisal findings in relation to the alternatives introduced above. Detailed appraisal findings are presented in **Appendix V**.

6.1.2 Detailed appraisal methodology is explained in Appendix V, but in summary: The appraisal table comprises a row for each of the sustainability topics that make up the SA framework (see Table 3.1). Within each row the alternatives are categorised in terms of potential to result in ‘significant effects’ (using **red** / **green**) and also ranked in order of relative performance (with ‘=’ used to denote instances where the alternatives perform on a par, i.e. it not possible to differentiate between them).

Table 6.1: Summary appraisal of the reasonable spatial strategy alternatives (October 2018)

Topic	Rank of performance / categorisation of effects						
	Opt 1 WH East WH West	Opt 2 B'wood/S'field	Opt 3 DHGV	Opt 4 B'wood/S'field WH East	Opt 5 B'wood/S'field WH West	Opt 6 DHGV WH West	Opt 7 B'wood/S'field WH East WH West
Air quality	★1	4	2	5	5	3	6
Biodiversity	3	4	★1	6	5	2	7
Climate change	★1	4	★1	4	3	★1	2
Community & well-being	2	5	★1	5	4	2	3
Cultural heritage	2	2	★1	3	2	★1	3
Economy & employment	2	3	★1	3	2	★1	3
Flooding	=						
Housing	7	6	5	4	3	2	★1
Landscape	★1	2	3	4	5	6	7
Soils	=						
Water	=						

Conclusion

A headline conclusion is that a strategy involving one or more strategic allocations within the A127 corridor performs well, relative to the alternative of supporting higher growth at the Brentwood Main Urban Area (BMUA), in respect of a number of objectives. It does not automatically follow that a strategy involving higher growth at the BMUA is relatively unsustainable overall; however, it is a strong indication. The appraisal has highlighted very limited benefits to supporting higher growth at the BMUA, and some significant draw-backs (perhaps most notably in respect of air quality); however, the appraisal findings do reflect the merits of the particular package of sites selected / assumed to deliver higher growth. There will be alternative packages of sites that perform better in certain respects.

Focusing on the A127 corridor, a strategy involving DHGV (Option 3) is found to out-perform a strategy involving growth to the east and west of West Horndon (Option 1) other than in respect of -

- Landscape - this finding relates to the fact that Option 1 would involve lower growth overall, relative to Option 3, i.e. growth at DHGV would be on larger scale (in particular once account is taken for the potential for significant growth beyond the plan period). There are reasons to suggest that DHGV is generally a more sensitive location from landscape perspective (i.e. irrespective of development scale); however, this conclusion cannot be reached with any certainty.
- Air quality - West Horndon is judged to be the preferable location from a perspective of wishing to minimise car dependency / distance travelled by car, given the rail station, and in turn is judged to be the preferable location in respect of 'Air quality' (noting that growth along the A127 corridor can be expected to lead to increased traffic in the Brentwood town centre AQMA); however, there is some uncertainty in respect of this conclusion, given the potential to deliver significant upgrades to walking/cycling and public transport infrastructure (i.e. bus services) at DHGV, as well as to deliver employment and a local centre (to include a secondary school) on-site.

A final point to note is that the appraisal conclusions in respect 'Housing' reflects the overall quantum of homes provided for, rather than the spatial distribution (as per 'Landscape'). Higher growth options are judged to be preferable given: A) the need to provide for a 'buffer' over-and-above the established OAHN/LHN figure (350dpa) in order to ensure a robust housing supply trajectory (recognising the risk of unanticipated delays to deliver at one or more sites); and B) the risk that the OAHN/LHN figure could increase prior to plan submission, or during the plan's examination; and C) the risk (less likely) of the Brentwood Local Plan having to provide for unmet needs arising from elsewhere in South Essex.

7 DEVELOPING THE PREFERRED APPROACH

7.1 Introduction

7.1.1 The aim of this Chapter is to present **the response of Brentwood Council Officers** to the alternatives appraisal / reasons for supporting the preferred approach as justified, and appropriate in-light of alternatives.

7.2 'Outline reasons' for supporting the preferred option

7.2.1 The preferred approach is Option 3, which involves allocating Dunton Hills Garden Village only, in addition to the sites that are a 'constant' across the reasonable alternatives, and thereby putting in place an overall land supply sufficient to provide - assuming no delayed delivery - for LHN plus a 31% buffer, or 459 dpa. Recognising that there is inherently a risk of delayed delivery, the Council proposes to be monitored against delivery of 350 dpa.

7.2.2 The appraisal finds Option 3 to have pros and cons, as per all the alternatives; however, it is apparent that Option 3 performs well in terms of the majority of sustainability objectives, which itself is a strong indicator of overall sustainability. The appraisal highlights certain concerns regarding Dunton Hills Garden Village, but the Council believes there to be good potential to address issues through targeted infrastructure delivery and careful masterplanning.

7.2.3 In this respect, the Council would wish to highlight that -

- Work has progressed on a masterplan with facilitated support from Design Council cabé which has resulted in a series of clearly defined 'localised' garden village principles for the site. Some of the principles focus upon the use of the landscape to help inform the future built form and need to ensure that Green Infrastructure is a central feature of the scheme.
- Effective infrastructure planning from an early stage in the project is considered essential, to ensure facilities such as schools, open spaces, active travel options, recreational and community facilities are built in at the start. One of the clear sustainability benefits of the project is the opportunity to plan comprehensively for infrastructure growth rather than through piecemeal incremental development.
- The concept of the garden village is far removed from 'houses in fields' and requires a real commitment to the principles of a garden settlement with its focus upon balancing housing, the quality of the environment and local employment opportunities. Dunton Hills will deliver housing, a new village centre, supporting infrastructure and new employment space. It is an integrated project and should be viewed holistically.
- A core principle of garden settlements (from their early conceptualisation) is the focus upon public health and creating places which support healthier living. Within the Dunton Hills project there is a focus upon green infrastructure, open spaces, recreation and supporting active travel (cycling and walking). It is built into the core masterplanning ideas and provides a marked departure from traditional urban extension schemes with their reliance upon private cars.
- The new village is located within close proximity to West Horndon railway station and strong cycling and walking linkages will be built between the new village and this public transport hub which will also be supported with an enhanced range of bus services.
- Dunton Hills is strategically well located within the A127 growth corridor and is within close proximity to existing employment opportunities plus major new employment allocations on site and at East Horndon plus within a short distance of the proposed new Brentwood Enterprise Park. The Council is keen to ensure that all the major development opportunities within this corridor are well supported by public transport connections and green transport corridors for cycling and walking.

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

8 INTRODUCTION (TO PART 2)

8.1.1 The aim of this part of the report is to present an appraisal of the Proposed Submission Plan as a whole.

8.1.2 The aim of this introductory chapter is to: A) provide an ‘at a glance’ overview of the Preferred Allocations; and B) introduce the appraisal methodology.

8.2 Overview of the Plan

8.2.1 A focus of this appraisal is A) the proposed package of site allocations; B) policies to guide future development management decisions.

8.2.2 **Tables 8.1 and 8.2** present the proposed housing land supply for the plan period.

Table 8.1: All sources of housing supply

Source				Number of new homes
Completions 2013/14 – 2017/18				363
Commitments (April 2018)				900
Windfall Allowance (2020/21 to 2032/33)				420
Allocations	Within settlements	Brownfield	Main urban area	1,152
			Other locations	580
		Greenfield	Main urban area	95
	Green Belt	Main urban area		1,437
		Ingatestone		218
		Larger villages		133
	Dunton Hills Garden Village			2,500
	Total			

Table 9.2: Preferred allocations

Location / Site	No. homes
Brownfield within Brentwood urban area	
The Eagle and Child Public House (Shenfield)	20
Chatham Way/Crown Street Car Park	31
Westbury Road Car Park	45
Land at Hunter House, Western Road	48
Land at Crescent Drive	55
Wates Way Industrial Estate, Ongar Road	80
Brentwood railway station car park	100
William Hunter Way car park	300
Cluster of sites south of Warley (Ford Offices, Eagle Way, 350 homes; Council Depot, The Drive, 123 homes)	473
Brownfield within other locations	
West Horndon Industrial Estate	580
Greenfield within Brentwood urban area	
Land at Priests Lane (Shenfield)	95
Green Belt at Brentwood urban area	
Land adjacent to Carmel, Mascalls Lane (Warley)	9
Sow & Grow Nursery, Ongar Road (Pilgrims Hatch)	38
Land west of Warley Hill, Pastoral Way (Warley)	43
Land east of Nags Head Lane (Brook Street)	125
Land off Doddinghurst Road (Pilgrims Hatch/Brentwood)	200
Land at Honeypot Lane (Brentwood/Brook Street)	200
Cluster of sites north of Shenfield (Land North of A1023 Chelmsford Road, 100 homes; Land east of Chelmsford Road, 215 homes; Officers Meadow, 510 homes)	825
Green Belt at Ingatestone	
Land adjacent to Ingatestone by-pass (part bounded by Roman Road, south of flyover)	57
Cluster of sites south of Ingatestone (Ingatestone Garden Centre, Roman Road, 120 homes; Site adjacent to Ingatestone Garden Centre (former A12 works site), 41 homes)	161
Green Belt at larger villages	
Cluster of sites at Hook End / Tipps Cross (Land adjacent to Tipps Cross Community Hall, Blackmore Road; and Chestnut Field, Blackmore Road)	10
Brizes Corner Field, Blackmore Road, Kelvedon Hatch	23
Land off Stocks Lane, Kelvedon Hatch	30
Cluster of sites north of Blackmore (Land south of Redrose Lane, north of Orchard Piece; and Land south of Redrose Lane, north of Woollard Way)	70
Dunton Hills Garden Village	2,500
Total	6,118

8.3 Appraisal methodology

- 8.3.1 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 3.1) as a methodological framework.
- 8.3.2 Every effort is made to predict effects accurately; however, this is inherently challenging given the high level nature of the policies under consideration, and an 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 to the non-specialist). 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 Proposed Submission Plan in more general terms.
- 8.3.3 Finally, it is important to note that effects are predicted taking account of the criteria presented within Schedule 1 of the Environmental Assessment of Plans and Programmes Regulations (2004). So, for example, account is taken of the duration, frequency and reversibility of effects as far as possible. Cumulative effects are also considered, i.e. the potential for the Brentwood Local Plan to impact on the baseline when implemented alongside other plans, programmes and projects. These effect 'characteristics' are described within the appraisal as appropriate.

Adding structure to the appraisal

- 8.3.4 Whilst the aim is essentially to present an appraisal of the Proposed Submission Plan 'as a whole', it is appropriate to also give stand-alone consideration to elements of the plan. As such, each of the appraisal narratives is broken-down under sub-headings.
- N.B. Specific policies are referred to only as necessary within the narratives below. It is not necessary to give systematic consideration to the merits of every plan policy in terms of every sustainability topic/objective.

9 APPRAISAL OF PROPOSED SUBMISSION PLAN

9.1 Introduction

9.1.1 As introduced above, this chapter presents a series of narratives - one for each of the topic headings that comprise the SA framework (see Chapter 3).

9.2 Air quality

Air pollution (and associated risks to health) must be an on-going consideration particularly that which results from traffic congestion in Brentwood town centre.

Commentary on preferred allocations

9.2.1 The appraisal of the 2016 Draft Plan concluded -

“The spatial strategy performs well, given a focus of housing and employment growth along the A127 corridor, i.e. away from the designated Air Quality Management Areas (AQMAs). A degree of growth directed towards the A12 / around the main urban area gives some cause for concern, although it is noted that the largest allocation (Officer’s Meadow, Shenfield) is well located, i.e. should enable good potential for ‘modal shift’ away from the private car.”

9.2.2 The Preferred Allocations consultation document then proposed an increased focus of growth at the **Brentwood Main Urban Area**, notably through: 225 additional homes north of Shenfield, through additional allocation of two Green Belt sites to the north of the previously proposed Officers Meadow site (with the proposal being to reduce the quantum of homes at Officers Meadow by 90 homes); 473 additional homes south of Warley, at two adjacent brownfield sites; and 400 additional homes at two brownfield sites within Brentwood town centre. The Preferred Allocations approach remains the preferred approach at the current time.

9.2.3 Of the additional sites, William Hunter Way Car Park (300 homes) is notable for being in close proximity to the town centre AQMA; however, the other sites benefit either from good access to the A12 / M25 (i.e. access that should avoid the need to pass through the town centre AQMA) or good access to one of the two train stations. The two sites that will extend the Officers Meadow scheme northwards are beyond 1km of Shenfield Station; however, there should still be good potential to walk/cycle to the train station.

9.2.4 Furthermore, it is noted that - relative to the 2016 Draft Plan approach - the 2018 proposal involves a reduced quantum of housing (C3) at three sites (135 homes reduction in total) that do give rise to a risk of increased traffic through the AQMA, namely: Honeypot Lane, Land off Doddinghurst Road and Land at Priests Lane.

Commentary on other policies

9.2.5 Air quality within the Borough is addressed through Policies: **SP01** (Sustainable Development [point e.]); **SP05** (Construction Management [point b]); **BE12** (Car-limited Development); **BE13** (Sustainable Means of Travel and Walkable Streets); **BE15** (Electric and Low Emission Vehicle); **BE16** (Mitigating the Transport Impact of Development); **BE34** (Buildings Design); and **NE06** (Air Quality).

9.2.6 The principle policy for Air Quality within the Local Plan is Policy NE06: Air Quality, which states that any development within an Air Quality Management Area (AQMA) will require a detailed air quality assessment. The policy also states that any development which is determined to have a significant adverse impact on air quality will be rejected. The policy does not however make explicit reference to traffic congestion, which is often the leading contributor to local air pollution. Therefore, it is recommended that the Council might seek to align Policy NE06 more closely with Policies BE12: Car-limited Development and BE13: Sustainable Means of Travel and Walkable Streets.

- 9.2.7 Therefore, also of importance are Policies BE12 and BE13, which seek to reduce air pollution through promoting development in accessible locations which will reduce the need to travel; and where travelling is required, sustainable modes of transport (i.e. walking, cycling, or public transport) can be supported.
- 9.2.8 Also of particular note is Policy BE15, which requires developers to provide charging points for electric vehicles in major developments, which will further reduce air pollution as electric vehicles become more prevalent.

Conclusions on the Proposed Submission Plan

- 9.2.9 The Draft Plan (2016) appraisal highlighted some concerns, but concluded no significant effects. The proposal to increase the focus of growth at Brentwood/Shenfield gives rise to some additional concerns, albeit most (not all) of the new sites proposed (since 2016) are relatively well located in air quality terms. On balance, it is possible to conclude **no significant effects** at the current time; however, there is considerable uncertainty, with growth at the Brentwood Main Urban Area set to increase traffic congestion in the AQMAs, and growth in the A127 corridor also likely to lead to some increases in traffic within the AQMAs.

9.3 Biodiversity

The network of green infrastructure and natural assets should be protected, enhanced and strategically expanded to deliver benefits for people and wildlife. Areas that are home to declining species or habitats should be a particular target for protection and ecological restoration.

Commentary on preferred allocations

- 9.3.1 The appraisal of the 2016 Draft Plan concluded -
- “The spatial strategy generally directs growth away from the most sensitive areas, including the extensive Thorndon Park ‘Living Landscape’ to the south of Brentwood. Growth to the south of the A127 is unlikely to impact directly on important habitat patches within this landscape, although recreational pressure is another consideration.⁵¹ A Dunton Hills Garden Village scheme will need to address some notable on-site constraints, and also ensure that Green Infrastructure opportunities are fully realised. Finally, it is noted that some question marks do remain regarding the impact of the A12 urban extension allocations on existing ‘green wedges’ that extend into the urban area.”*
- 9.3.2 The Preferred Allocations consultation document then proposed an increased focus of growth at the **Brentwood Main Urban Area**, and that approach remains the preferred approach at the current time. Most notable is the proposal to allocate land for 473 homes at two adjacent sites to the south of Warley, which lie adjacent to a large ancient woodland LWS and within c.600m of Thorndon Park SSSI; however, these are brownfield sites, which potentially serves to reduce concerns. It is also noted that a new small Green Belt allocation is proposed at Warley (Land west of Warley Hill, Pastoral Way; 43 homes) on a site that seemingly (on the basis of satellite imagery) includes a high density of mature trees, and which lies adjacent to a small ancient woodland LWS. The proposal to expand the urban extension to the north of Shenfield gives rise to limited concerns, including because part of the proposal is to deliver 90 fewer homes (C3) on the Officers Meadow site (relative to 2016), which includes a small ancient woodland LWS. Another notable ‘positive’ is the proposal to reduce the number of homes delivered at Land at Doddinghurst Road by 50 (relative to 2016), as this is a site seemingly with a relatively high density of mature hedgerow and other mature vegetation.

⁵¹ Natural England responded to the Growth Options consultation, stating that: “SA also needs to consider in more detail the recreational impacts upon the local SSSI network.” However, in response to the Draft Plan consultation Natural England raised no concerns.

- 9.3.3 Elsewhere, the proposal to allocate several sites at the larger villages in the north of Brentwood (133 homes in total; in comparison to the 2016 Draft Plan approach of nil allocations) gives rise to very limited concerns. The main proposed focus of growth is at two adjacent sites to the north of Blackmore (76 homes), which are unconstrained by nature conservation designations. **Kelveden Hatch** is notably more constrained, given the woodland SSSI ('The Coppice') adjacent to the north of the village; however, the two proposed allocations (53 homes in total) are located on the less constrained southern side of the village.
- 9.3.4 Finally, it is important to note that the proposed strategy for the **A127 corridor** remains broadly unchanged (relative to 2016), although work has been ongoing to examine green infrastructure issues and opportunities associated with Dunton Hills Garden Village and the wider area. An important consideration is the maintenance of ecological connectivity between Thorndon Living Landscape (as identified by the Wildlife Trusts) and the Langdon Hills and/or the Bulphan Fen Living Landscapes to the south. There is a clear opportunity to leave areas within the site undeveloped as green corridors (including land in the vicinity of Eastlands Spring, which links to habitat patches/landscapes to the north and south).

Commentary on other policies

- 9.3.5 Biodiversity is addressed through Policies: **SP01** (Sustainable Development [point g]); **BE05** (Assessing Energy Infrastructure [point b]); **BE08** (Sustainable Drainage); **BE34** (Buildings Design); **BE36** (Designing Landscape and the Public Realm); **BE37** (Green and Blue Infrastructure); **BE41** (Protecting Land for Gardens); **NE01** (Protecting and Enhancing the Natural Environment); **NE03** (Trees, Woodlands, Hedgerows); **NE04** (Wildlife and Nature Conservation); **NE07** (Thames Chase Community Forest); **NE09** (Floodlighting and Illumination); **NE12** (Green Belt); **SA28(ii)** (Spatial Design of Dunton Hills Garden Village).
- 9.3.6 Of particular relevance to protecting the Borough's existing natural assets is Policy NE01: Protecting and Enhancing the Natural Environment, which outlines the approach to protecting designated sites, including Sites of Special Scientific Interest (SSSI), both within the Borough and on its periphery. Reference is also made to the requirement for mitigation measures when protected species are discovered on a development site. However, no reference is made to non-protected habitats or wildlife, which are also important for biodiversity and the health of the natural landscape and environment. It is therefore recommended that non-protected habitats and species, especially those that are in decline (such as bees) should be offered some level of protection through the policy, such as requiring the replacement of the same number of plant species lost due to the development under any landscaping plans, as per the BREEAM (Building Research Establishment Environmental Assessment Methodology) guidelines. It is also important to note that reference is not made within Policy NE01 to Green Infrastructure, as this is considered under Policy BE37: Green and Blue Infrastructure. However, it is recommended that reference is made here, as Green Infrastructure is an important component in the health and viability of the natural environment.

Conclusions on the Proposed Submission Plan

- 9.3.7 The Draft Plan (2016) appraisal highlighted some concerns, but concluded no significant effects. Proposed changes to the spatial strategy since 2016 give rise to limited concerns, although there is a risk of growth to the south of Warley impacting on locally and nationally designated habitats. There remains room for further work, e.g. policy to ensure net biodiversity gains at appropriate landscape scales (e.g. the scale of the Thorndon Park Living Landscape); however, it is possible to conclude **no significant effects** at the current time.

N.B. A separate Habitats Regulations Assessment (HRA) Screening Report is published at the current time, examining the specific matter of potential impacts to European designated habitats, notably Epping Forest Special Area of Conservation (SAC).

9.4 Climate change mitigation

There is a need to minimise per capita greenhouse gas (GHG) emissions both from transport, and also from the built environment. With regards to transport, there is a need to minimise the need to travel, and encourage a shift towards lower carbon forms of transport. With regards to emissions from the built environment, the allocation of land for development through the local plan represents an opportunity to support the delivery of decentralised, low carbon or renewable heat and/or electricity generation. Also, an opportunity exists to require or encourage schemes to adopt ambitious standards of 'sustainable design'.

Commentary on preferred allocations

9.4.1 The appraisal of the 2016 Draft Plan concluded -

“With regards to emissions from transport... Work undertaken to date has established that there are considerable opportunities associated with a concentration of growth in the A127 corridor. In particular, there is the potential to achieve new homes and jobs in close proximity, deliver a new bus route linking the A127 corridor to Brentwood town centre, enhance walking/cycling infrastructure between key destinations (including train stations) and also increase the offer at West Horndon (and Laindon) centres. As for A12 urban extension allocations, there would be good potential to walk/cycle to Brentwood town centre or other local centres; however, traffic congestion would be an issue and residents might tend to see longer journeys by car (along the A12) as an attractive option.

With regards to emissions from the built environment [the strategy] also performs well. There is support for at least one scheme (Dunton Hills Garden Village) of a large scale such that ambitious decentralised low/renewable heat and/or power generation will become viable (e.g. a biomass fuelled heating or Combined Heat and Power (CHP) system) Also, larger schemes are more likely to deliver ambitious sustainable design/construction measures at the level of individual buildings.”

9.4.2 Proposed changes to the spatial strategy since 2016 - and in particular the proposal to deliver a larger extension to the **north of Shenfield** (825 homes, rather than 600 homes) - potentially give rise to some additional opportunity in respect of delivering low carbon decentralised heat/energy generation. However, it is noted that the proposed extension north of Shenfield is comprised of three component sites, which could prove a barrier, in respect of planning for the area as a whole, and achieving a critical mass.

Commentary on other policies

9.4.3 Climate change mitigation is addressed through Policies: **SP01** (Sustainable Development (points e.); **BE02** (Sustainable Construction and Resource Efficiency); **BE08** (Sustainable Drainage); **BE12** (Car-limited Development); **BE13** (Sustainable Means of Travel and Walkable Streets); and **BE37** (Green and Blue Infrastructure).

9.4.4 A primary policies for addressing Climate Change Mitigation is Policy BE02: Sustainable Construction and Resource Efficiency, which through points a., e., g., and h., outlines the requirements for developments to be energy efficient, be climate resilient and utilise renewable energy sources and limit carbon dioxide (CO₂) emissions. In particular, Policy BE02 seeks to address the regionally high greenhouse gas emissions within the Borough.

9.4.5 Policy BE12: Car-limited Development is also of note. It requires developers to support improvements to transport links, and also provide charging points for electric vehicles.

9.4.6 Whilst the Local Plan seeks to address Climate Change Mitigation for the design of developments once complete, it is recommended that due consideration is also given to the impact of activities related to refurbishment, demolition, excavation and construction. For example, it is recommended that provision is made to require developers to reduce, or reuse as much waste material as possible within new developments. This could be achieved through logistical measures, such as 'just in time' deliveries, or through reusing aggregate or other materials, such as off-cuts in landscaping or alternate development schemes.

Conclusions on the Proposed Submission Plan

- 9.4.7 The Draft Plan (2016) identified some positives, but concluded no significant effects. Changes to the strategy since 2016 potentially give rise to some additional opportunity in respect of delivering low carbon decentralised heat/energy generation; however, there is much uncertainty ahead of detailed proposals being prepared. There is room for improvement, in respect of taking steps to ensure that per capita CO₂ emissions from both transport and the build environment are minimised; however, it is possible to conclude **no significant effects**.

9.5 Community and well-being⁵²

Efforts are needed to tackle the Borough's high levels of inequality, with a particular focus on those areas suffering from the highest levels of deprivation. There is also a need to address the health inequalities that exist within the population, and which are set to worsen, including because of the ageing population. Also, there is a need address specific issues associated with Gypsy and Traveller communities.

There is a need to improve levels of educational performance in certain areas of the Borough, with provision of sufficient education facilities being a key issue.

There is a need for better access to services and facilities in rural areas of the Borough; and improved open spaces and recreation facilities are a requirement in certain areas, including youth facilities.

Commentary on preferred allocations

- 9.5.1 The appraisal of the 2016 Draft Plan concluded -

"[The plan] proposes a large strategic allocation in the A127 corridor, an area where there are identified opportunities to enhance local centres / community infrastructure, and ensure new communities are able to access key destinations via public transport and walking/cycling infrastructure. Residents of a Dunton Hills Garden Village scheme would have access to a 'Category 2' local centre on site (to include 'schools alongside retail and health facilities'); an improved West Horndon village centre (set to become category 2); a new local centre delivered as part of the proposed West Basildon Urban Extension (to include a GP surgery and with land reserved for the possible future delivery of a secondary school); an improved Laindon town centre c.4-5km to the east; and Brentwood town centre, via a new bus route. The decision to deliver a strategic allocation at Dunton Hills Garden Village rather than West Horndon, performs well from a 'communities' perspective given that consultation (since 2013, when the Preferred Option was to develop West Horndon as a strategic growth location) has highlighted the importance of maintaining West Horndon's 'village' status and not 'over-developing'.

However, the A12 corridor is also a focus for growth, through a number of smaller urban extensions. A number of these are well located - e.g. Officer's Meadow, Shenfield (easily the largest, at 600 homes) is within walking distance of the future Crossrail station; and Land off Doddinghurst Road, either side of A12, Brentwood (250 homes) is in close proximity to Brentwood Community Hospital, which does have capacity - however, capacity of community infrastructure is a concern.

Another consideration is that limited development will take place in villages (with the exception of West Horndon, where enhancements will result in this becoming a 'category 2' centre, on a par with Shenfield Hutton Road, Ingatestone High Street and Brentwood Station Warley Hill). Public transport, bus services in particular, are centred on Brentwood town centre, making accessibility an issue for villages with infrequent services and lack of evening running."

⁵² Issues relating to the Gypsy and Traveller community are considered under the 'Housing' topic heading.

- 9.5.2 Changes to the strategy since 2016 include an increased focus of growth at the **Brentwood Main Urban Area**, including through delivering a larger (825 home rather than 600 home) urban extension to the north of Shenfield, which should ensure delivery of a new primary school (albeit there may still be some uncertainty, recognising that the scheme comprises three component sites). It is also noted that this site benefits from being in close proximity to Shenfield High School, which has capacity to accept new pupils.
- 9.5.3 Also at the Brentwood/Shenfield urban area, a new focus of growth (since 2016) is proposed at the southern edge of Warley, with two adjacent brownfield sites proposed to deliver 473 homes in total. It is understood that there is the potential to masterplan the two sites in conjunction, and the potential to deliver 'mixed uses'; however, details are uncertain.
- 9.5.4 Other notable proposals at the main urban area include -
- Land at Priests Lane, Shenfield (95 homes) - is currently designated Protected Urban Open Space in the adopted Local Plan (2005), and hence development naturally gives rise to concerns in respect of ensuring the health and wellbeing of local communities; however, the current proposal is to deliver a reduced number of homes (C3), which *could* result in greater potential to design-in green infrastructure / open space (N.B. this is uncertain at the current time, ahead of a decision on C2 use, i.e. a residential institution).

Also, on a positive note, there is the potential option to utilise some of the land for expansion of adjoining Endeavour School. This is one of two specialist schools in Brentwood, and there is a desire to expand in order to accommodate a sixth form.
 - The three other larger proposed urban extensions - Honeypot Lane, Land off Doddinghurst Road and Land east of Nags Head Lane - are all also proposed for a reduced number of homes (C3) relative to the 2016 Draft Plan stage. None of these sites are expected to deliver a mix of uses, or support strategic upgrades to community infrastructure; however, it is not thought that this is related to the decision to reduce the number of homes (C3) delivered. One of these sites - Honeypot Lane - is potentially associated with an opportunity to support enhanced pedestrian links through St Faiths Park, which is adjacent to the east of the site, and links the site to Brentwood town centre.
 - Three sites - Land north of Chelmsford Road (which is the northern-most part of the linked proposed extension north of Shenfield), Land off Doddinghurst Road and Land at Honeypot Lane - are adjacent to the A12, which gives rise to concerns in respect of noise and potentially air pollution. Land north of Chelmsford Road is a new site, whilst the other two were proposals at the Draft Plan stage, with the latest proposal being to deliver a reduced number of homes onsite, which may help to ensure that a suitable buffer to the A12 can be achieved. Land at Honeypot Lane is associated with a small watercourse running through its centre, which serves to highlight that there will be factors other than a desire to maintain a buffer to the A12 that must be taken into account when arriving at a layout.
- 9.5.5 Elsewhere, the proposal to allocate several sites at the **larger villages** in the north of Brentwood (133 homes in total; in comparison to the 2016 Draft Plan approach of nil allocations) gives rise to some notable considerations. On one hand, new development will help to ensure a housing mix at these villages, and in turn a mixed community (e.g. to include young families); however, on the other hand there are naturally some concerns regarding access to community facilities, notably a primary school. Doddinghurst and Kelvedon Hatch primary school group is understood to have some capacity constraints.
- 9.5.6 Another important point to mention is increased understanding - since the 2016 Draft Plan stage - regarding the 'opportunity' at **Dunton Hills Garden Village**. As discussed within Chapter 7, work has progressed on a masterplan with facilitated support from Design Council cabé which has resulted in a series of clearly defined 'localised' garden village principles for the site. Central to the principles are the concepts of community engagement, ownership of assets, and a focus upon public health and creating places which support healthier living.

Commentary on other policies

- 9.5.7 Community and wellbeing is considered through Policies: **SP01** (Sustainable Development [point k.]); **SP03** (Health Impact Assessments); **SP04** (Developer Contributions); **BE12** (Car-limited Development); **BE13** (Sustainable Means of Travel and Walkable Streets); **BE17** (Parking Standards); **BE22** (Specialist Accommodation); **BE30** (Planning for Inclusive Communities); **BE31** (Creating Successful Places); **BE33** (Permeable and Legible Layout); **BE36** (Designing Landscape and the Public Realm); **BE37** (Green and Blue Infrastructure); **BE38** (Access to Nature); **BE39** (Allotments and Community Food Growing Space); **BE41** (Open Space in New Development); **BE42** (Open Space, Community, Sport and Recreational Facilities); **PC14** (Protecting and Enhancing Community Assets); **PC15** (Education Facilities); **PC16** (Buildings for Institutional Purposes); **NE12** (Green Belt); **NE13** (New Development, Extension and Replacement of Buildings in Green Belt); **NE15** (Previously Developed Land in Green Belt); **NE16** (Site Allocations in Green Belt); **SA28(i)** (Dunton Hills Garden Village Strategic Allocation); and **SA28(ii)** (Spatial Design of Dunton Hills Garden Village).
- 9.5.8 Policy SP03: Health Impact Assessments (HIAs) recognises that there is a need to reduce health inequalities within the Borough including a need to provide suitable facilities for older people and to provide better access to services in rural areas. The policy includes a requirement for developments over a discretionary threshold of 50 units to submit a Health and Wellbeing Impact Assessment with identified significant impacts from this process then requiring appropriate infrastructure provision.
- 9.5.9 Two principle policies for Community and Wellbeing are Policy SP04: Developer Contributions and PC14: Protecting and Enhancing Community Assets. SP04 outlines how, through Section 106 agreements, necessary related infrastructure, including access, open space and transport connections will be managed. This is supplemented by PC14 which demonstrates the Council's opposition to the loss or degradation of community facilities. A separate policy, Policy PC15: Education Facilities provides in-principle support for the delivery of new schools, subject to a range of criteria, as well as providing protection for existing schools.
- 9.5.10 PC16: Buildings for Institutional Purposes sets out a range of criteria necessary for institutional buildings to receive support but does not identify an indicative threshold at which institutional buildings will be required. It is recommended that reference is made to when institutional buildings will be encouraged, e.g. when the development site exceeds a certain number of homes. This will be particularly relevant in order to address issues of health inequalities and to provide sufficient educational facilities.
- 9.5.11 Policy BE12: Car-limited Development and BE13: Sustainable Means of Travel and Walkable Streets outline the requirement for new development to be located in areas that reduce the need to travel or are either connected, or easily connectable to existing transport links. This approach will support access to existing and new leisure and community facilities.
- 9.5.12 The importance of providing appropriate open space within new developments and safeguarding existing open space are recognised by separate policies. Policy BE41: Open Space in New Development sets out that there will be an expectation that new development delivers functional open space or a commuted sum paid to facilitate provision offsite if necessary. Although the policy notes that this requirement will be dependent on the size of the development it does not provide specific thresholds. Policy BE42: Open Space, Community, Sport and Recreational Facilities sets out the Council's opposition to the loss of existing open space and community facilities within the Borough. However, the policy also states that if it can be demonstrated that there is an excess of provision of open space, community, sport or recreational facilities, development that results in their loss may be supported. It is recommended that this proviso is removed, as levels of demand can change due to predictable (i.e. demographic) and unpredictable (e.g. cultural or societal interests) factors. For example, demand for allotments increased fourteen-fold between 1996 and 2011.⁵³

⁵³ Campbell, M., and Campbell, I. (2013); Allotment Waiting Lists in England 2013.

Conclusions on the Proposed Submission Plan

- 9.5.13 The Draft Plan (2016) identified some positives, but concluded no significant effects. Changes to the spatial strategy since 2016 give rise to some additional opportunity in respect of delivering new and upgraded community infrastructure, although there remains some uncertainty at this current stage. Significant positive effects are not predicted, as it is not clear that there would be delivery of new strategic community infrastructure to address any existing issues/opportunities (i.e. new infrastructure would primarily 'consume the smoke' of the new development).

9.6 Economy and employment

The competitiveness of key employment areas such as Brentwood town centre, and Warley Business Park must be supported, including by promoting sites for high quality office development.

There is a need to support a thriving town centre through a good balance of shopping and other uses; and there is also a need to protect and support smaller centres and parades.

Opportunities exist to support investment that leads to high value, knowledge-based employment activities; in particular, there is a need to consider future opportunities associated with Crossrail.

Commentary on preferred allocations

- 9.6.1 *The appraisal of the 2016 Draft Plan concluded -*

"[The plan] makes provision for 5,000 additional jobs over the Plan period, achieved primarily through new employment (B-use) allocations totalling 32.8 hectares, but supported by existing employment sites and appropriate redevelopment where appropriate. This quantity of new employment land will enable some older employment premises in central areas (i.e. Wates Way Industrial Estate, Brentwood; Council Depot, Warley; and West Horndon Industrial Estates) to be redeveloped for housing.

The A127 Corridor will see significant economic growth, mainly because of the opportunity to redevelop brownfield land at M25 junction 29, a project known as Brentwood Enterprise Park. This location provides excellent access onto the strategic highway network, making it a very desirable place for businesses. Also, a small extension is proposed to existing nearby employment land at Childerditch Industrial Estate, and there will be provision of new employment land at the eastern end of the A127 as part of the Dunton Hills Garden Village proposal and the opportunity will be taken to formally designate existing employment land around the A127, specifically those close to M25 junction 29. The combined effect should be to strengthen the A127 corridor employment cluster, also recognising that the A127 corridor in Basildon Borough is already seen as an 'Enterprise Corridor', and that the Basildon Borough Local Plan is set to retain, diversify and expand employment here.

Policy PC09 (Brentwood Town Centre) is another important policy. The policy seeks to ensure an integrated approach to the redevelopment of William Hunter Way Car Park and the Baytree Centre, through a 'design-led' Town Centre Masterplan."

- 9.6.2 Latest understanding is that there is a need deliver an increased quantum of employment (B class uses) through the Local Plan, in order to meet the forecast of 8.1ha to 20.3ha. After taking into account latest understanding regarding forecast loss of existing employment land to other uses, this means a need to allocate land for between 33.76ha and 45.96ha.

- 9.6.3 The 2018 proposal - as reflected in the Preferred Allocations consultation document and now the Proposed Submission Plan - is to allocate land for circa 47ha, i.e. slightly more than the forecast need. The sites proposed for allocation in the 2016 Draft Plan remain proposed for allocation at the current time, with additional capacity identified at certain sites, most notably at Brentwood Enterprise Park (up from 23.41ha to 25.85ha) and Childerditch Industrial Estate (up from 2.34ha to 5.87ha). In addition, a small number of new sites are proposed for allocation, namely land near Codham Hall (0.61ha); land at East Horndon Hall (5.5ha; to the immediate north west of Dunton Hills Garden Village) and a small potential, allocation north of the A1023 (2.0ha). It is understood that the resulting 'portfolio' of sites will be suitably diverse in respect of type and quality, with other 'b uses' for example – manufacturing (B1c/B2) and warehousing / logistics (B8) - provided for. It is also noted that the exact range and type of employment development at Dunton Hills is still subject to detailed site masterplanning.

Commentary on other policies

- 9.6.4 Economy and employment is addressed through Policies: **BE12** (Car-limited Development); **PC01** (Cultivating a Strong and Competitive Economy); **PC02** (Job Growth and Employment Land); **PC03** (Employment Land Allocations); **PC05** (Employment Development Criteria); **PC06** (Supporting the Rural Economy); **PC07** (Retail and Commercial Leisure Growth); **PC08** (Retail Hierarchy of Designated Centres); **PC09** (Brentwood Town Centre); **PC10** (Mixed Use Development in Designated Centres); **PC11** (Primary Shopping Areas); **PC13** (Night Time Economy); **NE15** (Previously Developed Land in Green Belt); **NE18** (Re-Use and Residential Conversion of Rural Buildings); **Policy XX** (Brentwood Enterprise Park); **SA28(i)** (Dunton Hills Garden Village Strategic Allocation); and **SA28(ii)** (Spatial Design of Dunton Hills Garden Village).
- 9.6.5 Chapter 6: Prosperous Communities details the primary policies pertaining to Economy and Employment. In particular, Policy PC01: Cultivating a Strong and Competitive Economy sets out the intention “...to maintain high and stable levels of local economic growth, enabling the Borough’s economy to diversify and modernise through the growth of existing business and the creation of new enterprises.” This is to be secured by the initiatives in points a. – i., primarily through directing major new retail, office and leisure investment to the Borough’s Town Centres (point f.); the intensification of vacant and underutilised sites, the regeneration of previously developed land, and the allocation of new sites (points b and c.); and supporting the Borough’s rural economy and growing agricultural enterprises (point g.). However, the policy does not outline ways in which the Council will support applications for knowledge-based employment developments. It is recommended that this is done through support of measures such as requiring high-speed Broadband for key areas, such as Warley Business Park, the proposed Brentwood Enterprise Park and Brentwood town centre.
- 9.6.6 The Local Plan outlines policies for new key employment areas on brownfield land, such as Policy X: Brentwood Enterprise Park, which details the criteria in points a. – d. that need to be met. These include the requirement that employment uses and the jobs created are consistent with the wider economic strategy of the Local Plan; landscaping and planting is used to minimise visual impacts ; and the sustainable transport options are provided, in line with Policy BE12: Car-limited Development. These measures will be crucial in order to maximise the efficiency of development on the available brownfield land within the Borough.
- 9.6.7 Elsewhere within the plan, Policy PC10: Mixed Use Development in Designated Centres supports the Borough’s intention to maintain a mixture of employment and residential areas, to provide residential development within close proximity to services and transport links, and to provide community safety and activity in commercial areas after businesses close.
- 9.6.8 The Council are keen to support a strong local rural economy and Policy NE18: Re-Use and Residential Conversion of Rural Buildings is intended to support this through outlining the criteria that should be met for the conversion of residential rural buildings for employment, tourism, leisure or community or residential use. Through the criteria applied, the policy supports the Green Belt and other policy objectives relating to retaining and conserving the rural heritage and landscape of the development area.

Conclusions on the Proposed Submission Plan

- 9.6.9 The Draft Plan (2016) appraisal concluded the likelihood of significant positive effects resulting from a strategy that includes a concentration of growth along the A127; however, latest understanding from the Transport Assessment serves to highlight serious concerns regarding traffic congestion at M25J29, and also at junctions along the A127. Taking a precautionary approach, significant positive effects are not predicted.

9.7 Heritage

Heritage assets must be given protection relative to their importance, which must include giving protection to areas of identified historic character.

Commentary on preferred allocations

- 9.7.1 The appraisal of the 2016 Draft Plan concluded -

“With regards to development in the A127 corridor a concern -raised by Historic England through the 2015 Strategic Growth Options consultation] - is that development at both West Horndon and Dunton would lead to cumulative effects (‘urbanisation’) and harm to ‘various heritage assets’; however, Historic England did not suggest outright objection to growth in this area (“an adequate buffer between West Horndon and Dunton would be expected”) and concerns from 2015 may now be somewhat allayed, given that a comprehensive Dunton Garden Suburb scheme is no longer being actively considered as an option. A Dunton Hills Garden Village scheme might well impact on the setting of Dunton Hills farmhouse (grade II listed), however.

As for the A12 urban extension allocations, these do not raise major concerns from a heritage perspective, although it is noted that: the proposed extension at ‘Land east of Nags Head Lane, Brentwood’ is in close proximity to several listed buildings at Brook Street; and also that the large Officers Meadow site at Shenfield will have implications for the Chelmsford Road, along which there are a number of listed buildings. Another consideration will be the potential for indirect impacts on the Brentwood Town Centre Conservation Area (recognising that in the Shenfield area the only Conservation Area is at Hutton).

Finally, it is important to recognise that growth in the Rural North and Rural South areas of the Borough (N.B. this does not include the area south of the A127) will be limited to retain local character, with no amendments proposed to Green Belt boundaries. Brownfield opportunities will be encouraged to help ensure villages remain thriving communities, which is important from a heritage perspective.”

- 9.7.2 Focusing on proposed changes to the spatial strategy since 2016, points to note are -

- The proposal to increase the scale of the urban extension north of Shenfield gives rise to limited additional concerns.
- The two adjacent sites on the southern edge of Warley (473 homes) lie adjacent to two listed buildings; however, as these sites are currently brownfield - with significant built development - hence there should be low risk of further negative impacts to setting.
- The proposed new major brownfield site within Brentwood town centre (William Hunter Way; 300 homes) lies outside of the Conservation Area, and is not in close proximity to any listed buildings (Grade II* White Hart Inn closest, at c.50m); however, heritage is a consideration nonetheless. This is a key opportunity site within the Brentwood Town Centre Design Plan.
- The proposal to reduce the number of homes delivered at Land east of Nags Head Lane is supported, given proximity to several listed buildings at Brook Street.

- Land west of Warley Hill, Pastoral Way, Warley (43 homes) is notably constrained, with two adjacent listed buildings (one actually within the site boundary) and mature vegetation onsite, and so there is a clear need for sympathetic layout, if this number of homes is to be delivered successfully.
- The newly proposed small village extension sites at Kelvedon Hatch and Hook End / Tipps Cross are seemingly relatively unconstrained, with no listed buildings in close proximity, and no nearby designated conservation area.
- However, the proposed extension to Blackmore (which is much more substantial, at 76 homes) is constrained by three adjacent or nearby listed buildings, and Blackmore Conservation Area is located c.125m to the south.

Commentary on other policies

- 9.7.3 Heritage is considered through Policies **BE05** (Assessing Energy Infrastructure); **BE32** (Responding to Context); **BE37** (Green and Blue Infrastructure); **BE43**(Conservation and Enhancement of Historic Environment); **BE44** (Listed Buildings); **BE45** (Local Heritage Assets); **BE46** (Conservation Areas); **BE47** (Scheduled Monuments and Archaeological Remains); **NE01** (Protecting and Enhancing the Natural Environment); and **SA28(ii)** (Spatial Design of Dunton Hills Garden Village).
- 9.7.4 Policy BE43: Conservation and Enhancement of Historic Environment sets out the main principles in relation to the impact of development on heritage assets and their settings. A comprehensive approach to protection is set out with all developments regardless of size being required to “conserve, sustain and enhance” historic assets. Whilst there could be practical challenges for development at any scale to achieve an enhancement of an historic asset, it is considered positive that the policy recognises the potential of new development to enhance heritage assets and their settings through appropriate scheme design and layout.
- 9.7.5 Policy BE32: Responding to Context recognises that the significance of a heritage asset can be derived from existing features of historic importance close to a proposed development and that developments must therefore not only be sensitive to heritage considerations within the site itself but also those within the surrounding environment.

Conclusions on the Proposed Submission Plan

- 9.7.6 The Draft Plan appraisal (2016) identified some positives, and some potential draw-backs, but overall concluded no significant effects. Proposed changes to the spatial strategy (since 2016) similarly give rise to a ‘mixed picture’ in respect of impacts to heritage assets and the historic environment. However, it is possible to conclude **no significant effects** in relation to the Proposed Submission Plan, noting good potential to suitably avoid/mitigate effects at the development management stage.

9.8 Flooding

Action is needed to reduce the risk of flooding, including the increased risk that climate change may pose. There is a need to protect and enhance existing natural flood risk management infrastructure and ensure all development incorporates sustainable drainage systems to minimise flood risk.

Commentary on preferred allocations

9.8.1 The appraisal of the 2016 Draft Plan concluded -

“Flood risk in Brentwood Borough is not extensive [as] evidenced by the mapped outputs of the Brentwood Strategic Flood Risk Assessment (2010) and the more recent Surface Water Management Plan (SWMP).⁵⁴ This SWMP concludes that flooding hotspots (taking into account where existing properties are at risk) are at: West Horndon, Ingatestone and Brentwood town centre.

A strategic allocation at Dunton Hills Garden Village would need to address flood risk issues, given the stream that runs through the site (which notably leads to an area to the south of the site, adjacent to the railway, as being ‘more’ susceptible to flooding, according to SWMP modelling). Whilst the Dunton Garden Suburb consultation document (January 2015) suggested that the area in question would be left as open space, there is currently less certainty regarding precisely where built development... would occur. Also, it is noted that a large portion of the area under consideration... is identified by the SWMP as having limited potential to deliver ‘infiltration’ measures as part of sustainable drainage strategy.⁵⁵”

9.8.2 Proposed changes to the spatial strategy, since 2016, have limited implications for flood risk, although there is a notable degree of surface water flood risk at several sites, including -

- Honeypot Lane - where the proposal is to deliver a reduced number of homes;
- Land off Doddinghurst Road - where the proposal is to deliver a reduced number of homes;
- Officer's Meadow, Shenfield - where the proposal is now to deliver fewer of homes (C3);
- Site adjacent to Ingatestone Garden Centre (former A12 works site) - a new site; and
- Land south of Redrose Lane, north of Orchard Piece, Blackmore - a new site.

Commentary on other policies

9.8.3 Flooding is considered through Policies: **BE02** (Sustainable Construction and Resource Efficiency); **BE08** (Sustainable Drainage); **BE37** (Green and Blue Infrastructure); and **NE10** (Flood Risk).

9.8.4 The principle Policy for Flooding is Policy NE10: Flood Risk, which outlines the requirement for any development at risk of flooding to submit a Flood Risk Assessment (FRA) and refers the reader to Policy BE08: Sustainable Drainage. The policy also makes reference to the need to consider the impacts of climate change, and outlines the conditions upon which development within the floodplain will be considered. These points therefore address the need to consider the increased risk of flooding as a result of climate change and will seek to reduce the risk of flooding for new development. Whilst Policy NE10 includes a provision to safeguard land used for current and future flood management, it is recommended that provision is made within Policy NE10 for the enhancement of current flood management systems, i.e. drainage ditch clearance, or tree or hedgerow planting so as to reduce surface water run-off.

⁵⁴ The SWMP (2015) is available at: <http://www.brentwood.gov.uk/index.php?cid=966>.

⁵⁵ See Appendix K of the SWMP at: <http://www.brentwood.gov.uk/pdf/22062015121842u.pdf>

- 9.8.5 Also of importance, Policy BE02: Sustainable Construction and Resource Efficiency requires developments to incorporate include Sustainable Urban Drainage Systems (SuDS) (point d.). However, whilst the policy states that these measures apply to all development proposals, it is recommended that developments above a certain size, e.g. 20 dwellings, are expected to provide more substantial rainwater attenuation measures, such as a minimum surface area of green walls or roofs.

Conclusions on the emerging draft plan as a whole

- 9.8.6 The Draft Plan (2016) appraisal concluded no significant effects on the basis that the spatial strategy generally avoided areas of flood risk, although flood risk is a constraint to growth at Dunton Hills Garden Village. Work has been ongoing to understand surface-water flood risk, and necessary Sustainable Drainage Systems (e.g. this was a reason for a decision being taken, following the Preferred Allocations consultation, to reduce the number of homes delivered at the Blackmore allocations), and so it is possible to conclude **no significant effects** in relation to the Proposed Submission Plan.

9.9 Housing

Housing affordability is a significant issue for many in the Borough and demand for affordable housing is likely to continue to rise; as such there is a need to increase delivery of affordable housing. New housing must be of an appropriate size, tenure and design so as to meet the needs of existing and future residents (including the elderly, disabled people and those in poor health).

Commentary on preferred allocations

- 9.9.1 The appraisal of the 2016 Draft Plan concluded -
- “The [strategy] performs well on the basis that objectively assessed housing needs are set to be met. There should be good potential to deliver a range of types and tenures of housing at larger sites, and it is also noted that a strategy is in place for meeting the needs of Gypsies and Travellers... Other considerations are: addressing variations in housing needs across the Borough; and meeting housing needs in the rural villages. In terms of the former, there is no evidence available to inform a discussion, but it seems likely that this is not a major factor given that the main urban area is central within the Borough. It should be the case that housing delivered in the A127 corridor helps to meet the needs arising from Brentwood/Shenfield and (perhaps to a lesser extent) Ingatestone. In terms of the latter, there are perhaps some concerns relating to the limitation of growth at villages in the Rural North and Rural South areas, although it is noted that opportunities to develop brownfield sites in the Green Belt have been explored.”*
- 9.9.2 The current preferred approach involves a land supply - i.e. completions, commitments, allocations, windfall - sufficient to *potentially* deliver well in excess of 5,950 homes over the plan period, which is the OAHN/LHN figure (350 dpa x 19). A degree of headroom is appropriate, given the risk that one or more sites might be subject to unanticipated delays to delivery, and given a need to ensure a smooth delivery trajectory over the plan period, or at least not avoid major dips in the trajectory that could lead to a situation whereby the Council experience difficulties in respect of demonstrating a five year housing land supply, or meeting the Housing Delivery Test. In this specific case the proposed buffer is 31%, which is high reflecting: A) the fact that Dunton Hills Garden Village is inherently associated with a degree of delivery risk (as a large site, with capacity to deliver 4,500 homes in the long-term, i.e. beyond the plan period, which in and of itself is a ‘positive’ from a housing perspective, in that the Council thereby giving confidence regarding housing supply in the long term); and B) the potential for understanding of OAHN/LHN to increase prior to submission of the Local Plan, or during the Local Plan’s Examination.

- 9.9.3 Also of note is the proposal to deliver a greater **mix of sites**, relative to 2016, both in respect of site size (for example, 'Land adjacent to Carmel, Mascalls Lane, Warley' is a small greenfield site that is expected to be able to deliver at the start of the plan period) and geographical spread. The proposal to deliver 133 homes in the northern villages should help to ensure that very localised housing needs are met, i.e. should increase the potential for young people forming a new household to remain their home village, should they wish. It is also the case that these sites may lend themselves to development by smaller housebuilders.
- 9.9.4 Another important point to mention is increased understanding - since the 2016 Draft Plan stage - regarding the 'opportunity' at **Dunton Hills Garden Village**. The current policy position is a minimum of 35% affordable housing, with the Council is looking at options to deliver housing directly and through supporting Registered Social Landlords, community land trust providers and collective self-build projects to contribute to the overall mix and diversity of affordable housing. It is also recognised that there is a need to pepper-pot affordable housing across the village and ensure that any affordable housing (however developed) maintains a strong cohesive design theme and identify.
- 9.9.5 Another key emerging design theme at Dunton Hills is adaptable design. In terms of housing, this means working with developers and housebuilders to ensure that properties can be easy adapted to suit changing personal requirements and family commitments.
- 9.9.6 Finally, in respect of **specialist accommodation needs**, the preferred approach has evolved considerably since the Draft Plan stage, in that there is understood to be good potential at several of the larger proposed allocations.

Commentary on other policies

- 9.9.7 Housing is addressed through Policies: **BE19** (Housing Mix); **BE20** (Protecting Existing Housing Stock); **BE21** (Residential Density); **BE22** (Specialist Accommodation); **BE23** (Affordable Housing); **BE24**: Standards for Housing); **BE25** (Provision for Gypsy and Travellers); **BE26** (Regularising Suitable Existing Traveller Sites); **BE27** (Safeguarding Permitted Sites) **BE28** (Sub-division of Pitches or Plots); **BE34** (Buildings Design); **BE36** (Designing Landscape and the Public Realm); **PC10** (Mixed Use Development in Designated Centres); **NE09** (Floodlighting and Illumination); **NE12** (Green Belt); **NE13** (New Development, Extension and Replacement of Buildings in Green Belt); **NE14** (Established Areas of Development and Structures in the Green Belt); **NE15** (Previously Developed Land in Green Belt); **NE16** (Site Allocations in Green Belt); **NE17** (Agricultural Workers Dwellings); **NE18** (Re-Use and Residential Conversion of Rural Buildings); and **SA28(i)** (Dunton Hill Strategic Allocation).
- 9.9.8 Principle policies for housing across the Borough include Policy BE19 Housing Mix which outlines the thresholds at which: a mix of dwelling types, sizes, tenures and specialist accommodation (six or more dwellings or 0.2 hectares or more); easily adaptable for the elderly or people with disabilities (20 or more dwellings); or self-build (100 or more dwellings) are required. Policy BE23: Affordable Housing states that on sites of 11 or more dwellings, or sites of 1,000 square metres gross residential floorspace, irrespective of the number of dwellings, at least 35% affordable housing is required. However, whilst consideration is given to phases of development of a site to meeting the criteria set out in these policies, it is recommended that provision is also made within the policy to prevent the "salami-slicing" of developments, which may be done to avoid the above criteria, For example, should a developer purchase an adjacent area of land to a new development after planning permission has been granted, or construction has begun on the original scheme, consideration should be given to the above criteria and the applicability of this Policy on the combine site. This should be considered on a case-by-case basis.
- 9.9.9 Finally, Policy BE25: Provision for Gypsy and Travellers sets out the requirement to meet the identified needs of Gypsy and Traveller communities, and the necessary provision of a minimum of 13 pitches between 2016 and 2033. These 13 pitches will be delivered via 6 new pitches at Dunton Hill Garden Village and 7 from the regularisation of existing traveller sites as per Policy BE26: Regularising Suitable Existing Traveller Sites.

Conclusions on the emerging draft plan as a whole

- 9.9.10 The Draft Plan (2016) appraisal concluded the likelihood of **significant positive effects** on the basis of the proposal to meet OAHN/LHN, and also to provide for specialist accommodation needs. Changes to the strategy, since 2016, serve to reinforce this conclusion, with the current proposal being to provide for a 'buffer' over-and-above OAHN/LHN, and also deliver a greater diversity of sites. There is a good degree of confidence in the ability to meet needs arising from within Brentwood; however, it is important to note that the proposal is not to provide for unmet needs arising from elsewhere (it is anticipated that this will be a focus of further consideration through the South Essex Joint Spatial Plan).

9.10 Landscape

The borough includes highly valued rural landscapes that require protection and careful management with a view to supporting distinctiveness; and urban fringe landscapes should also be a focus of careful planning.

Commentary on preferred allocations

- 9.10.1 The appraisal of the 2016 Draft Plan concluded -
- “With regards to Dunton Hills Garden Village, there are clearly landscape sensitivities, with consultees (notably Thurrock Council) suggesting the potential for impacts to valued landscapes, and loss of Green Belt that serves a clear purpose (particularly in the sense of preventing coalescence and/or sprawl). It is anticipated that there will be good potential to avoid/mitigate effects; however, there is some uncertainty and a need for further work to examine options. It is noted that, whilst there is the potential to make use of some clearly defined physical features (A127, A128, railway line), it may be a challenge to ensure a defensible long term boundary separating the Garden Village from west Basildon (where there is a planned urban extension).*
- With regards to the A12 urban extensions, there are perhaps fewer concerns. This is on the basis that the landscape and Green Belt were primary considerations when selecting the preferred sites. All sites have strong boundaries, which should result in little or no risk of further sprawl in the future. Also, it is noted that two of seven A12 urban extension allocations (albeit two of the smaller ones) are brownfield sites.”*
- 9.10.2 Changes to the strategy since 2016 increase the focus of growth at the **Brentwood/Shenfield** urban area; however, much of the proposed additional growth is directed towards brownfield sites (two adjacent sites at Warley, 473 homes; and William Hunter Way car park, 300 homes). There are four newly proposed Green Belt sites; however, two of these are relatively small (Land adjacent to Carmel, Mascalls Lane, Warley, 9 homes; and Land west of Warley Hill, Pastoral Way, Warley, 43 homes) and give rise to relatively few landscape concerns. The other two new Green Belt sites are adjacent, and together comprise a significant northern extension to the previously proposed Officers Meadow site, to the north of Shenfield (bringing the total size of the urban extension to 825 homes); however, these sites would appear to be relatively unconstrained in landscape terms, given containment by the A12 and railway line. Finally, it is noted that the proposal is now to reduce the quantum of homes (C3) delivered at all four of the Green Belt sites proposed by the 2016 Draft Plan, namely Land off Doddinghurst Road, Land east of Nags Head Lane, Land at Honeypot Lane and Officers Meadow.
- 9.10.3 Elsewhere, the proposal to allocate several sites at the **larger villages** in the north of Brentwood (133 homes in total) naturally gives rise to some landscape concerns. The sites at Blackmore and Hook End / Tipps Cross benefit from being well contained by a road; however, the two sites at Kelvedon Hatch are seemingly less strongly contained within the landscape.

- 9.10.4 Another important point to mention is increased understanding - since the 2016 Draft Plan stage - regarding the issues/opportunities at **Dunton Hills Garden Village**. Green infrastructure is likely to play a strong role in defining the character of the new village and ensuring wildlife assets are protected and developed. At a strategic level there are opportunities to connect Thorndon Country Park to the north through the site and onwards to Langdon Hills Country Park to the south. One of the emerging key design principles for Dunton Hills is its focus upon ‘working with the landscape’ to take advantage of level differences across the site and sensitively plan for flood alleviation and new natural features. However, concerns regarding landscape impacts still remain. Thurrock Council stated, through their response to the January 2018 consultation:

“Thurrock Council suggests that the potential of larger scale developments such as the Dunton Hills Garden Village would have a much greater negative impact on the landscape than stated by Brentwood Council. The assessment of both landscape character areas and capacity for development can be undertaken for a range of scale and type. The Dunton Hills Garden Village concept would be considered a large scale urban development likely to have significant impact to neighbouring local character areas. The character assessments undertaken for Brentwood in the Mid Essex Character Assessment Area G3 South Essex Towns do not reflect the importance of the adjacent large landscape character area of fenland. This has been recognised by the Thames Chase Heritage Lottery Fund as a distinctive landscape character worth conservation and has been identified by Campaign for the Protection of Rural England as nationally significant area of tranquillity in the Metropolitan Green Belt. Dunton Hill Farm site is on a highly distinctive rise on a raised plateau between Laindon Hills and the Brentwoods Hills and separates the catchments of the Mardyke River to west and the River Crouch to the east. Basildon descends north-east from Langdon Hills to the River Crouch. The urban edges of Brentwood and Basildon are set back from the steeper slopes and screened with woodlands from views across the fenland. The settlements of Upminster and South Ockendon are identifiable in distant views to the east and south-east. There are built features within the open rural landscape which do not significantly impact the value of the area but may lower the quality or condition of the landscape in field by field character assessments. The impact to the wider fenland character is likely to be greater than the settlements of South Ockendon in the south west. It is highly likely from the finding of landscape capacity studies that any development greater than discreet infill plots would significantly harm the landscape character.

Commentary on other policies

- 9.10.5 Landscape is considered through Policies: **BE08** (Sustainable Drainage); **BE09** (Communications Infrastructure); **BE25** (Provision for Gypsy and Travellers); **BE34** (Buildings Design); **BE36** (Designing Landscape and the Public Realm); **BE37** (Green and Blue Infrastructure); **BE46** (Conservation Areas); **NE01** (Protecting and Enhancing the Natural Environment); **NE03** (Trees, Woodlands, Hedgerows); **NE04** (Thames Chase Community Forest); **NE12** (Green Belt); **NE13** (New Development, Extension and Replacement of Buildings in Green Belt); **NE14** (Established Areas of Development and Structures in the Green Belt); **NE15** (Previously Developed Land in Green Belt); **NE17** (Agricultural Workers Dwellings); **SA28(i)** (Dunton Hills Garden Village Strategic Allocation); and **SA28(ii)** (Spatial Design of Dunton Hills Garden Village).
- 9.10.6 The need to protect the Borough’s highly valued rural landscape is a focus of Policy NE01: Protecting and Enhancing the Natural Environment, which sets out the Council’s commitment to safeguard the Borough’s varied landscapes, heritage, biodiversity and habitats. Additionally, Policy NE03: Trees, Woodlands, Hedgerows sets out the protection afforded to the rural landscape and features of ecological importance, including trees, woodlands or hedgerows. Policy NE03, in conjunction Policy BE37: Green and Blue Infrastructure, also supports the Essex Wildlife Trust’s Living Landscapes vision to “restore, recreate and connect wildlife habitats”. This approach will help to protect and enhance the Borough’s rural landscapes and their distinctiveness.

Conclusions on the emerging draft plan as a whole

- 9.10.7 The Draft Plan (2016) appraisal concluded significant negative effects, given the sensitivities that exist, albeit noting that the preferred strategy has evolved over time in response to concerns (in particular in relation to growth at West Horndon) and that detailed work has been completed to enable the identification of A12 urban extension sites that are best performing from a landscape / Green Belt perspective. Changes to the spatial strategy, since 2016, give rise to limited additional concerns, with the primary consideration being the proposal to deliver several small (to medium, in the case of Blackmore) scale extensions to three villages in the rural north of the Borough. Work has been ongoing regarding how best to avoid and mitigate landscape impacts at specific sites; however, at the current time it remains appropriate to conclude the likelihood of **significant negative effects**.

9.11 Soils

There is a need to make best use of brownfield land and protect the Borough's resource of productive agricultural land.

Commentary on preferred allocations

- 9.11.1 The appraisal of the 2016 Draft Plan discussed "*evidence of the Council's commitment to maximising brownfield opportunities*" and was ultimately able to find the spatial strategy to perform well, in terms of making best use of brownfield land and protecting the Borough's resource of productive agricultural land.
- 9.11.2 Changes to the strategy since 2016 involve additional release of Green Belt land - the majority of which is in agricultural use - but also an increase in homes directed to brownfield sites.
- 9.11.3 Virtually all preferred greenfield allocations are shown to intersect 'grade 3' land by the nationally available agricultural land quality dataset, meaning that the land may or may not be 'best and most versatile' in practice (the NPPF defines best and most versatile as land that is grade 1, grade 2 or grade 3a). However, one of the allocations introduced subsequent to the 2016 Draft Plan stage - Land south of Redrose Lane, north of Woollard Way - does intersect land shown as grade 2 by the national dataset. The national data shows numerous patches of grade 2 land in this northern part of the Borough, and is very low resolution, hence there would seem to be a strong likelihood of one or more of the preferred allocations at the northern villages comprising best and most versatile agricultural land.

Commentary on other policies

- 9.11.4 Soil and contamination is considered through **Policy NE08: Contaminated Land and Hazardous Substances**. The policy takes a precautionary approach towards contaminated land, and outlines what is required of developers who wish to develop these areas of land. However, as the Borough is predominately dominated by Green Belt, it is recommended that it is stated within Policy NE08 that support will be given to any development proposals that seek to remediate and bring back into a usable standard, areas of contaminated land.

Conclusions on the emerging draft plan as a whole

- 9.11.5 The Draft Plan (2016) appraisal concluded no significant effects, on the basis of the proposal to make best use of brownfield sites, and on the basis of the assumption that much of the agricultural land lost would be of relatively low quality, i.e. not 'best and most versatile'. Since the Draft Plan stage further detailed work has been completed to ensure that most efficient use is made of brownfield land, with the outcome being a significant increase in the number of homes proposed on brownfield land. However, with regards to agricultural land, the proposal is now to increase the area lost, and there is a significantly increased likelihood that some of this land will be 'best and most versatile'. As such, at this stage it is appropriate to flag the potential for **significant negative effects**.

9.12 Waste

A primary concern is to promote the integration of facilities to enable efficient recycling as part of new developments; and developers should be encouraged to adopt sustainable construction practices, including handling waste arisings, recycling, and disposal in a sustainable manner.

Commentary on preferred allocations

- 9.12.1 The appraisal of the 2016 Draft Plan concluded: *“The broad spatial distribution of growth is not likely to have a bearing on waste management related objectives. It is assumed that there is sufficient capacity at waste management processing facilities in Essex to handle waste, and all new development, regardless of location and scale, has the potential to design-in waste management facilities.”*
- 9.12.2 This conclusion broadly stands. There are some waste infrastructure challenges in the Borough - with no composting facility, limited commercial waste recycling facilities (potentially with implications for fly tipping) and capacity constraints at household waste recycling centres - however, it is not clear that the spatial strategy has implications for the delivery of new facilities. The joint Essex County Council and Southend-on-Sea Borough Council Waste Local plan, adopted in 2017, is the current approved planning policy document that guides waste development and determines waste-related planning applications within Essex and Southend.

Commentary on other policies

- 9.12.3 Waste is addressed through Policies: **BE02** (Sustainable Construction and Resource Efficiency); **BE03** (Carbon Reduction, Renewable Energy and Water Efficiency); **BE24** (Standards for New Housing); **BE34** (Buildings Design); and **NE08** (Contaminated Land and Hazardous Substances).
- 9.12.4 It is important to note that whilst the NPPF does not include any policies relevant to waste management within new developments, recommendations, guidance and requirements are set out in the Planning Practice Guidance, Waste Management Plan for England (2013) and the National Planning Policy for Waste (2014). Policy BE24: Standards for New Housing notes that “consideration should be given to how smart infrastructure can be integrated into communal areas, including waste disposal points”. Whilst this demonstrates some consideration of the practical need to design-in waste management features there is little in the plan to promote moving up the waste hierarchy. The plan would be strengthened with a requirement that developers are encouraged to move up the waste hierarchy (from the preferred reduce → reuse → recycle → recover → disposal [the least preferable option]) wherever possible. In particular, provision should be given for adequate recycling facilities, and where appropriate i.e. on larger developments, or residential developments with a garden, space is allocated for on-site composting of food waste arising.
- 9.12.5 It is noted that Policy BE03: Carbon Reduction, Renewable Energy and Water Efficiency requires major development applications to be accompanied by a Sustainability Statement outlining the approach to a number of issues including site waste management. This is likely to help mitigate unnecessary wastage at the construction stage of development.

Conclusions on the emerging draft plan as a whole

- 9.12.6 The Draft Plan (2016) appraisal concluded no significant effects, mainly noting that development management policy has some, albeit limited, potential to support good waste management practices, and that there is the potential to strengthen the policy approach. There are some waste infrastructure capacity issues locally; however, it is possible to conclude **no significant effects** in relation to the Proposed Submission Plan.

9.13 Water quality and water resources

Water quality is a concern, with efforts needed to improve the ecological status of waterways; and, given the Borough's position in an area of serious water stress, water efficiency measures should be sought.

Commentary on preferred allocations

9.13.1 The appraisal of the 2016 Draft Plan concluded -

“The Water Cycle Study highlights waste water capacity as an issue. Waste water treatment infrastructure in the north of the Borough (treatment works at Doddinghurst and Ingatestone) is operating at capacity and cannot accommodate any further development; whereas in the south of the Borough there is capacity. On this basis [the strategy] performs well, with low growth directed to the Rural North and relatively low growth directed to Ingatestone.

In terms of water efficiency, larger scale developments may enable higher standards of water efficiency; however, this is uncertain. In terms of water quality, the SFRA indicates that although the Pilgrims Hatch area is underlain by a minor aquifer (as is most of the Borough) this area does have high potential for groundwater leaching...”

9.13.2 A notable change to the strategy, since 2016, is the allocation of several sites at the **larger villages** in the north of Brentwood (163 homes in total); however, a Water Quality Assessment (WQA) has been completed, taking account of the proposed allocations, and concludes -

“The WQA has indicated that there should be no significant deterioration in water quality in discharge waters due to housing growth. The main issue identified is operational capacity of the WwTW and ability to receive sewage flows. It has been recommended that both Brentwood and Ingatestone WwTWs review volumetric capacity to manage future Dry Weather Flow as a result of increased housing growth within their respective catchment areas. A diversion of flows to nearby WwTW could be considered or a combination of review of consent limits and water reduction measures.”

N.B. in respect of potable water supply, it is not possible to conclude that the proposal to provide for a higher quantum of new homes (relative to the 2016 Draft Plan stage) leads to concerns, as this is a regional issue and Brentwood is not known to be any more constrained than neighbouring authorities. In respect of water quality, there are not known to be any strategic constraints - e.g. particular river systems that are sensitive or in need of improvement - and there is always good potential to address matters at the development management stage, e.g. through designing-in sustainable drainage systems (SuDS).

Commentary on other policies

9.13.3 Water quality and water resources are addressed through Policies: **SP01** (Sustainable Development [point e.]); **BE02** (Sustainable Construction and Resource Efficiency [points c and d]); **BE08** (Sustainable Drainage); **BE37** (Green and Blue Infrastructure); **NE10** (Flood Risk); and **SA28** (Dunton Hills Garden Village Strategic Allocation (i)).

9.13.4 In particular, Policy BE02: Sustainable Construction and Resource Efficiency requires developments to incorporate water conservation measures and include Sustainable Urban Drainage Systems (SuDS). However, whilst the policy states that these measures apply to all development proposals, there could be an opportunity to expect developments above a certain size, e.g. 20 dwellings, should provide more substantial water management measures, such as grey water harvesting. Reference is made to Policy BE08: Sustainable Drainage, which contains guidelines on what is expected of developers with regards to SuDS, and a similar approach could be taken towards water conservation measures.

9.13.5 Whilst the Local Plan addresses drainage requirements and water consumption targets, there is no reference to preserving, or enhancing waterways. There might be a stand-alone policy that addresses the requirement for the preservation and where possible, enhancement of the ecological and chemical status of waterbodies in line with the Water Framework Directive.

Conclusions on the emerging draft plan as a whole

- 9.13.6 The Draft Plan (2016) appraisal concluded no significant effects, and this conclusion holds true at the current time - i.e. in relation to the Proposed Submission Plan - in light of the findings of the Water Cycle Study (2018).

9.14 Conclusions at this current stage

- 9.14.1 The appraisal presented above identifies the likelihood of -
- significant positive effects in respect of 'Housing' - as the proposal is to provide for objectively assessed needs;
 - significant negative effects in respect of 'Landscape' - as a number of the proposed allocations will lead to an impact to valued landscapes (most notably Dunton Hills Garden Village), albeit not landscapes that are designated or known to be of particular value); and
 - significant negative effects in respect of 'Soils' - given the likelihood of significant loss of 'best and most versatile' agricultural land.
- 9.14.2 The appraisal also highlights tensions between the plan and numerous other objectives, and equally numerous ways in which the plan will be supportive numerous objectives, but is not able to conclude that effects will be 'significant'.
- 9.14.3 Appraisal findings are broadly similar to those presented in relation to the emerging Draft Plan, as it stood in January 2018, although it is no longer considered appropriate to conclude the likelihood of significant positive effects in respect of 'Economy'. The proposal is still to take an ambitious approach to the allocation of new employment land - i.e. allocate an area of land more than sufficient to meet needs - however, latest evidence serves to highlight that the Local Plan will exacerbate traffic congestion at a number of locations, which could have a bearing on businesses and the economy.
- 9.14.4 There will be the potential to make further improvements to the plan during the course of the Examination in Public (EiP), and potential address the significant negative effects and other 'tensions' highlighted within the appraisal. Account should also be taken of the numerous specific recommendations that are made in relation development management policy.

PART 3: WHAT HAPPENS NEXT?

10 INTRODUCTION (TO PART 3)

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

11 PLAN FINALISATION

11.1.1 Once the period for representations on the Proposed Submission Plan / SA Report has finished the main issues raised will be identified and summarised by the Council, who will then consider whether in-light of representations received the plan can still be deemed 'sound'. If this is the case, the Plan will be submitted for Examination, alongside a statement setting out the main issues raised during the consultation. The Council will also submit the SA Report.

11.1.2 At Examination the Inspector will consider representations (alongside the SA Report) before then either reporting back on the Plan's soundness or identifying the need for modifications. If the Inspector identifies the need for modifications to the Plan these will be prepared (alongside SA) and then subjected to consultation (with an SA Report Addendum published alongside).

11.1.3 Once found to be 'sound' the Plan will be formally adopted by the Council. At the time of Adoption a 'Statement' must be published that sets out (amongst other things) 'the measures decided concerning monitoring'.

12 MONITORING

12.1.1 The SA Report must present 'measures envisaged concerning monitoring'.

12.1.2 At the current time, in-light of the appraisal findings presented in Part 2 (i.e. predicted effects and uncertainties), it is suggested that monitoring efforts might focus on -

- perceptions of landscape;
- loss of best and most versatile agricultural land;
- community infrastructure delivery and capacity;
- wastewater treatment works capacity;
- air quality within Brentwood town centre and at other locations of concern;
- achievement of 'biodiversity net gains' at appropriate scales;
- impacts to the setting of listed buildings; and
- delivery of decentralised low carbon heat/energy generation, and other measures for minimising CO₂ emissions from the built environment and transportation.

APPENDIX I - REGULATORY REQUIREMENTS

As discussed in Chapter 1, 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.

Table A: Questions answered by this SA Report, in-line 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 SA scope?	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 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 this SA Report, in-line 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 meets regulatory requirements. Table C aims to present a discussion of more precisely how/where regulatory requirements are met.

Table C: ‘Checklist’ of how and where (within this report) regulatory requirements are being 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 2 (‘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 3 (‘What’s the scope of the SA’). Also, more detailed messages from the Scoping Report (context and baseline review) are presented (in an updated form) within Appendix II.
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...;	
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 “<i>how... considerations have been taken into account</i>” -</p> <ul style="list-style-type: none"> • Chapter 5 explains how reasonable alternatives were established in 2018 in-light of earlier consultation and SA. • Chapter 7 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.	<ul style="list-style-type: none"> • Chapter 6 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). • Chapter 9 presents at appraisal of Proposed Submission Plan. <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;	A range of recommendations were made within the 2016 and 2018 Interim SA Reports. At the current time, Chapter 9 identifies policy areas that might be the subject of further work, 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;	Chapters 4 and 5 deal with 'Reasons for selecting the alternatives dealt with', with an explanation of the reasons for focusing on particular issues and options. Also, Chapter 7 explains the Council's 'reasons for selecting the preferred option' (in-light of appraisal). Methodology is discussed at various places, ahead of presenting appraisal findings, and limitations are also discussed as part of appraisal narratives.
i) description of measures envisaged concerning monitoring in accordance with Art. 10;	Chapter 11 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-line with the following regulations	
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)	As explained by Figure 4.1, five Interim SA Reports have been published alongside plan consultation documents prior to this current report. At the current time, this SA Report is published alongside the Proposed Submission Plan, in order to inform the current consultation and plan finalisation.
The SA Report must be taken into account, alongside consultation responses, when finalising the plan.	
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.	Past Interim SA Reports, and consultation responses received on those reports, informed Proposed Submission Plan. As discussed within Chapter 12, appraisal findings presented within this Interim SA Report will inform plan finalisation, i.e. preparation of the Proposed Submission Plan for publication and submission. At the current time, this SA Report is published alongside the Proposed Submission Plan, in order to inform the current consultation and plan finalisation.

APPENDIX II - CONTEXT AND BASELINE REVIEW

Introduction

As discussed in Chapter 3 ('What's the scope of the SA?') the SA scope is primarily reflected in a list of topics and objectives ('the SA framework'), which was established subsequent to a review of the sustainability 'context' / 'baseline' and consultation. The aim of this appendix is to present summary outcomes from the context / baseline review, as the detailed issues discussed helpfully supplement the SA framework, i.e. serve to identify specific issues that should be a focus of appraisal under the SA framework.

Air quality

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

The NPPF makes clear that planning policies should be compliant with and contribute towards EU limit values and national objectives for pollutants; and states that new and existing developments should be prevented from contributing to, or being put at unacceptable risk from, or being adversely affected by unacceptable levels of air pollution. This includes taking into account Air Quality Management Areas (AQMAs) and cumulative impacts on air quality.

Government has recently published an Air Quality Plan for NO₂⁵⁶ which makes the following important statement -

"Unlike greenhouse gases, the risk from NO₂ is focused in particular places: it is the build-up of pollution in a particular area that increases the concentration in the air and the associated risks. So intervention needs to be targeted to problem areas, fewer than 100 major roads which national modelling suggests will continue to have air pollution problems in 2021, mostly in cities and towns. The effort to reduce NO₂ also needs to be targeted on the sources that make the biggest contribution to the problem: road vehicles contribute about 80% of NO₂ pollution at the roadside and growth in the number of diesel cars has exacerbated this problem."

Air quality in Essex as a whole is generally considered to be good; however, the Borough features a high proportion of air quality management areas (AQMAs) when compared to the rest of the county.⁵⁷ In total there are seven AQMAs located in the Borough; however, three are now set to be de-designated on the basis that NO₂ concentrations have not exceeded the annual mean objective value for the past four years.⁵⁸ The AQMAs designated in the Borough are predominantly located on the main transport route, the A12. The one exception to this is the AQMA located within Brentwood Town Centre at the A128/A1023 junction.

Biodiversity

The NPPF and other national policy documents emphasise the need to protect important sites, plan for green infrastructure and plan for ecological networks at 'landscape scales' taking account the anticipated effects of climate change. National policy reflects the commitment to 'halt the loss of biodiversity and the degradation of ecosystem services in the EU by 2020'.

Positive planning for 'green infrastructure' is recognised as part of planning for 'ecological networks'. New development should incorporate green space consisting of a 'network of well-managed, high-quality green/open spaces linked to the wider countryside'. These spaces should be of a range of types (e.g. community forests, wetland areas and parks) and be multifunctional, for instance as areas that can be used for walking and cycling, recreation and play, supporting of wildlife, or forming an element of an urban cooling and flood management.

A number of local policy documents also highlight the need to preserve and enhance biodiversity features. The Brentwood Borough Council Green Infrastructure Strategy (2015) provides a set of principles; aims; improvement possibilities and key recommendations. These highlight and prioritise the most needed

⁵⁶ See <https://www.gov.uk/government/publications/air-quality-plan-for-nitrogen-dioxide-no2-in-uk-2017>

⁵⁷ Brentwood Borough Council (2009) Pathway to a sustainable Brentwood: Issues and Options Consultation [online] available at: <http://www.brentwood.gov.uk/pdf/10112009103817u.pdf> (accessed 12/2014)

⁵⁸ Defra: AQMA Maps [online] available at: http://aqma.defra.gov.uk/maps.php?map_name=kent&la_id=33 (accessed 12/2014)

improvements to local green spaces; and encourage cross collaboration between stakeholders to support networks of multi-functional green infrastructure.

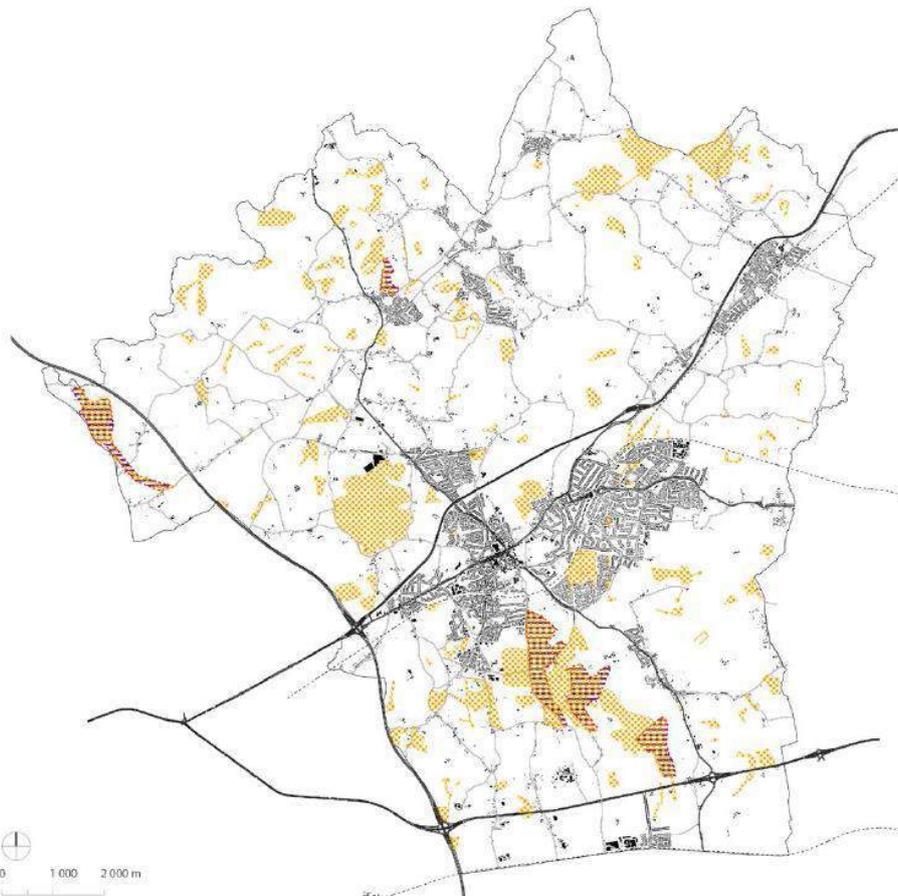
There are three Sites of Special Scientific Interest (SSSI) within the Borough. These are located at Coppice, Kelvedon Hatch; Curtis Mill Green; and Thorndon Park. All of these SSSIs are classified as being in 'unfavourable' condition, but remedial work is being undertaken. Of the sites, two are located within the north-west area of the Borough, whilst one is located to the south.

On a landscape scale, of primary concern is the large corridor of Biodiversity Action Plan (BAP) habitat to the south of Brentwood, running almost as far as the A127, much of which is publically accessible as Thorndon Country Park. Habitats comprise 'Deciduous Woodland' and/or 'Wood Pasture and Parkland', with three patches designated as nationally important SSSI' and other patches designated as Local Wildlife Sites. This whole area is identified by Essex Wildlife Trust as the Thorndon Woods 'Living Landscape' (one of 80 across the County), which does not indicate that human activity should be minimised, but does give pause for thought when considering strategic allocation options. This is particularly the case given that Natural England responded to the Growth Options consultation, stating that: "SA also needs to consider in more detail the recreational impacts upon the local SSSI network."

Other sites of biodiversity interest in the Borough include:⁵⁹

- a statutory Local Nature Reserve (Hutton Country Park), and Warley Place which is managed by Essex Wildlife Trust as a Local Nature Reserve.
- the Thames Chase Community Forest and Red House Lake are both highlighted as sites for protection.
- Numerous Local Wildlife Sites (LWS) and non-designated areas of ancient woodland.

Designated SSSIs (dark brown) and Local Wildlife Sites (light brown) in Brentwood



⁵⁹ PMP (2007) Survey and assessment of needs and audit of open space, sport and recreation facilities in Brentwood Borough [online] available at: <http://www.brentwood.gov.uk/pdf/19032008093745u.pdf> (accessed 12/2014)

Climate change mitigation

In its 2007 strategy on climate change, the European Commission recommended a package of measures to limit global warming to 2° Celsius. On energy, the Commission recommended that the share of renewable energy grows to 20% by 2020 against the 1990 baseline. In the UK the Climate Change Act 2008 has set legally binding targets on reducing greenhouse gas emissions in the UK by at least 80% by 2050 and 34% by 2020.

The NPPF emphasises the key role for planning in securing radical reductions in greenhouse gas emissions, including in terms of meeting the targets set out in the Climate Change Act 2008. Plan-making should, for example, support efforts to:

- Reduce transport emissions, by concentrating new developments in existing cities and large towns and/or ensuring they are well served by public transport;
- Deliver infrastructure such as low-carbon district heating networks; and
- Increase energy efficiency in the built environment.

The Brentwood Declaration on Climate Change acknowledges the increasing impact that climate change will have on the community during the 21st century and commits to tackling the causes and effects of a changing climate. The declaration commits to developing plans with partners and local communities to progressively address the causes and the impacts of climate change.

Total domestic and commercial energy consumption in the Borough was below the average for Essex as a whole in 2005⁶⁰. With the possible exception of some small scale domestic solar panels, the Borough had no renewable energy schemes in place in 2009, and no planning applications were received regarding renewable energy schemes over the course of 2010/11. There may, however, have been the installation of solar panels on individual residential properties in the Borough, for which planning permission is not required.⁶¹

Per capita emissions of CO₂ in the Borough have been falling in recent years. Total emissions per capita have fallen from 8.3 tonnes in 2005 to 7.2 tonnes in 2012 with a decline in transport emissions (0.5 tonnes), domestic emissions (0.3 tonnes) and industrial emissions (0.4 tonnes) over the same period. Emissions per capita still remain above the 2012 Essex (5.9 tonnes), East of England (6.4 tonnes) and national (6.2 tonnes) averages.⁶²

In 2001, 57% of the Borough's population travelled to work by car (below the national average); a higher than average number of people commuted by train (20%); and 1% of residents cycled to work (below the regional and national average). Approximately 20% of residents travel greater than 20km to work; however the number of borough residents working from home is slightly higher than average.⁶⁰

Community and well-being

A core planning principle is to 'take account of and support local strategies to improve health, social and cultural well-being for all'. The NPPF also emphasises the need to: facilitate social interaction and create healthy, inclusive communities; promote retention and development of community services / facilities; ensure access to high quality open spaces and opportunities for sport and recreation; and promote vibrant town centres.

Brentwood is one of the most affluent areas in England, within the least deprived 10% of the country, but there remains a need to plan carefully to ensure the wellbeing of existing residents and residents of new communities. A primary consideration is sustainable access to community infrastructure (with capacity). In this respect, the following comment made by NHS England, through the Growth Options consultation (2015) is of considerable note:

"It is important to acknowledge that, dependent upon the location of the growth, existing GP practices do not have capacity to accommodate significant growth... Delivery of essential infrastructure via developer funded projects would be the most effective scenario for meeting the intended growth... It is suggested

⁶⁰ Brentwood Borough Council (2009) Pathway to a sustainable Brentwood: Issues and Options Consultation [online] available at: <http://www.brentwood.gov.uk/pdf/10112009103817u.pdf> (accessed 12/2014)

⁶¹ Brentwood Borough Council (2012) Annual Monitoring Report 2010/11 [online] available at: <http://www.brentwood.gov.uk/pdf/18012012112208u.pdf> (accessed 12/2014)

⁶² DECC (2014) Local Authority Carbon Dioxide Figures [online] available at: <https://www.gov.uk/government/statistics/local-authority-emissions-estimates> (accessed 12/2014)

that a single large site necessitating the need for new facilities specific to that development would be more sustainable than dispersing growth in many settlements. Numerous smaller extensions could have impacts on existing infrastructure left unmitigated, or the level of contribution falling short of the requirements to provide adequate healthcare.”

Other considerations relate to access to town and local centres, access to education and access to open space and sport/leisure facilities.

As highlighted by the NPPF, a key driver of health outcomes is access to open space / and sport and recreation. In this respect, the Brentwood Borough Sport, Leisure and Open Space Assessment 2015 (working draft) highlights that there are relatively good levels of access to green space and sport provision in Brentwood, although that there are areas of concern about quality. It states that: “Local community surveys show that green spaces and sport facilities are valued highly by Brentwood residents and that they add significantly to the quality of life in the Borough”.

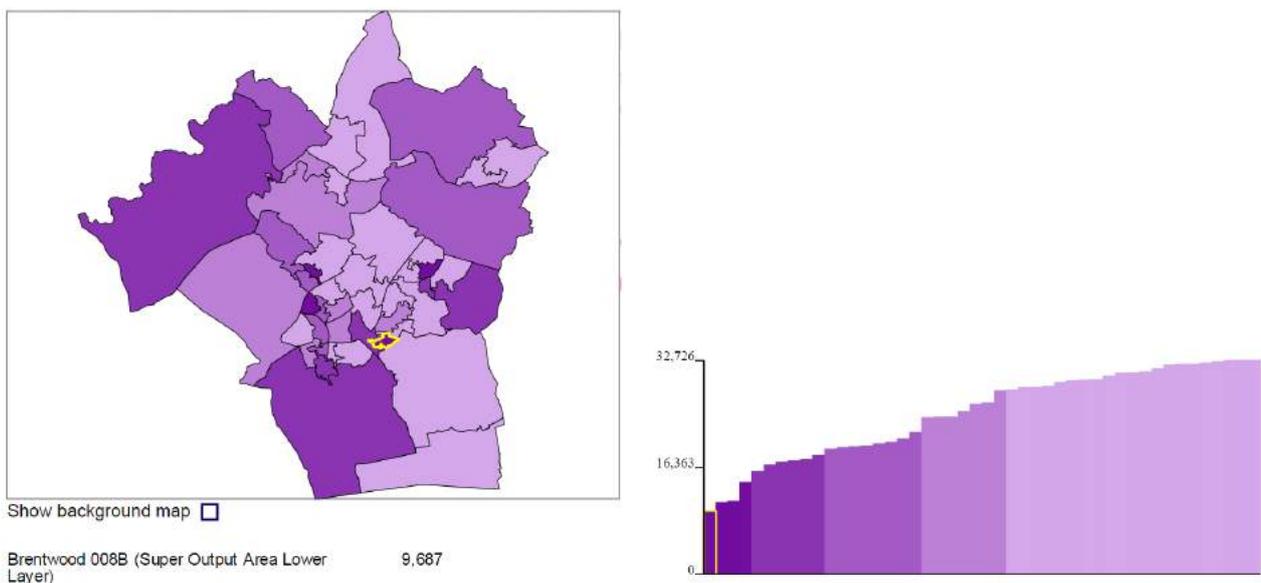
In the Borough, there is a higher proportion of the population classed as having ‘good’ health than in England as a whole. Life expectancy is higher than the national average. Over the period 2008-10 this stood at 81.1 for men and 84.3 for women in comparison to 78.2 and 82.3 respectively in England. In the Borough’s most deprived areas life expectancy is 9.4 years lower for men and 6.4 years lower for women than in the least deprived areas.⁶³

With regards to education facilities, secondary schools locally have capacity locally; however, primary schools are generally at capacity with relatively limited opportunities for expansion (particularly within the Brentwood urban area). Levels of attainment in education are considered to be relatively high, with a slightly higher than average proportion of 15 year old pupils achieving GCSEs or equivalent in 2007. The average number of people achieving no qualifications was also slightly lower than average.⁶⁰ 23% of the Borough’s population have no qualifications, compared to 29.1% in England.⁶¹

The Borough is home to a number of community facilities, providing both social and cultural services. Examples include the Brentwood Centre’s International Hall, Brentwood Theatre, Merrymeade House, and a number of Parish and Village halls. The Borough has three libraries. These are located in Ingatestone, Shenfield and Brentwood. In terms of sports and recreation, a number of large facilities are available.

‘Multiple deprivation’, as measured by the Index of Multiple Deprivation 2010 dataset, varies across Brentwood. The unit of measurement is the Super Output Area (SOA). The figure below shows the output of the IMD 2015 dataset. The most deprived SOA (highlighted in the figure below) ranks 9,687 nationally (where 1 is most deprived), whilst the least deprived ranks 32,726th (out of 32,844 nationally).

IMD 2015 (with most deprived SOA highlighted)



⁶³ DoH (2012) Health Profile: Brentwood [online] available at www.apho.org.uk/resource/view.aspx?RID=117177 (accessed 12/2014)

Economy and employment

The planning system can make a contribution to building a strong, responsive economy by ensuring that sufficient land of the right type is available in the right places and at the right time to support growth and innovation; and by identifying and coordinating development requirements, including infrastructure provision. The NPPF also emphasises the need to: Capitalise on 'inherent strengths', and meet the 'twin challenges of global competition and of a low carbon future'; Support new and emerging business sectors, including positively planning for 'clusters or networks of knowledge driven, creative or high technology industries'; and Support competitive town centre environments, and only consider edge of town developments in certain circumstances.

Brentwood is part of the South East Local Enterprise Partnership (LEP) which contains the three counties of Essex, Kent and East Sussex. The LEP aims to '*create the most enterprising economy in England*' and key to achieving this is addressing three 'barriers to growth': tackling congestion on the transport network, improving skills and reducing deprivation. Other objectives of the LEP are to strengthen the rural economy through opportunities in the food sector, tourism and universal super-fast broadband.

The Heart of Essex: Economic Futures Study (2012) identifies land, transport, storage and professional services; administrative and support services; and education as particular areas for growth. The study notes that 'supporting local businesses and attracting inward investment by creating the right conditions for growth will be critical to achieving the service-led growth that is forecast'; and strategic transport and communications infrastructure will be crucial to creating the right conditions for growth.

Following on from the Earlier Heart of Essex: Economic Futures Study, The Brentwood Economic Futures 2015-2030 document (2014) was produced in order to update the economic evidence base for the Brentwood LDP. Brentwood has recorded strong levels of job growth over the last 17 years (30%) and this document forecasted three different scenarios for future job growth in Brentwood.

The overall job growth associated with these scenarios range from 5,750 jobs to 7,440 jobs, over the period 2015/16 to 2029/30. Each of the scenarios indicates a lower level of future job growth in Brentwood than has been achieved in the recent past. The majority of job growth under each scenario is expected to be for office-based jobs, with some additional distribution jobs; and an anticipated decline in manufacturing jobs.

The Brentwood retail and commercial leisure study (2014) provides a qualitative analysis of the existing retail and leisure facilities within the Borough, and an assessment of the need for new retail, leisure and other main town centre uses. The study notes that: "*The short to medium term capacity figures up to 2020 suggest surplus of available convenience goods expenditure could support an additional 2,151 sq.m net (3,074 sq.m gross), primarily concentrated in Brentwood town centre*".

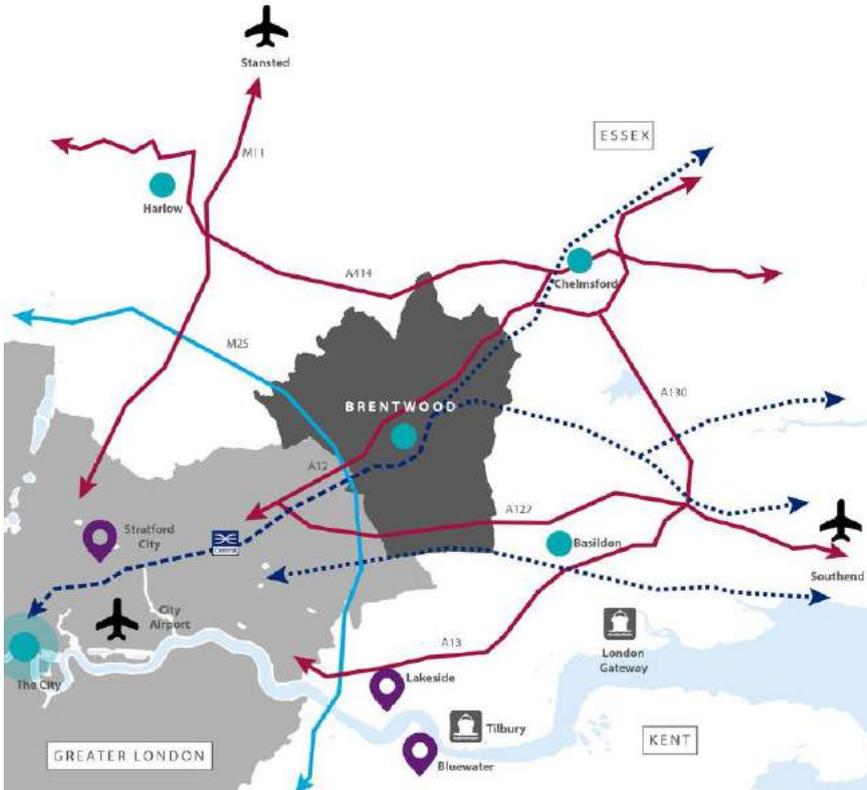
The Borough has low unemployment and has recorded strong levels of job growth over the last 17 years (30%; with the number of B-Class jobs having increased by 40%). However, there is currently an imbalance between skills and jobs because of the population working in London, which indicates a need to support further employment growth. Also, there are clear indications that delivery of new employment land in Brentwood would support the regional economy, including that of Greater London (where employment land is increasingly being lost to housing).

In the past employment growth in Brentwood has been driven by consumption sectors including residential care and social work, business services, education, healthcare and construction. However, there is now a need to focus on 'B-class' jobs growth, that is growth at dedicated employment sites. Having said this, there is also a need to take a 'discerning' approach, e.g. recognising that a strategy of simply responding to market demand for distribution warehousing would not be appropriate.

The borough is closely connected to London's economy and in 2011 contributed £1.5 billion to the UK economy and despite the local economy shrinking by 4.6% in 2007/08 and a further 3.1% in 2009 due to the global economic crisis, overall the Borough's gross value added (GVA) has been on the rise with its contribution expected to exceed 2006 levels by 2014.⁶⁴

⁶⁴ Nathaniel Lichfield & Partners / Experian (2012) The Heart of Essex: Economic Futures Study [online] available at: <http://www.brentwood.gov.uk/pdf/06082012104212u.PDF> (accessed 12/2014)

Brentwood's location on the regional transport network



Flooding

The NPPF calls for development to be directed away from areas highest at risk, with development ‘not to be allocated if there are reasonably available sites appropriate for the proposed development in areas with a lower probability of flooding’. Where development is necessary, it should be made safe without increasing levels of flood risk elsewhere. The NPPF also states that local planning authorities should avoid ‘inappropriate development in vulnerable areas or adding to the impacts of physical changes to the coast’ in order to reduce the risk from coastal change.

The Flood and Water Management Act highlights that alternatives to traditional engineering approaches to flood risk management include: Incorporating greater resilience measures into the design of new buildings, and retro-fitting at risk properties (including historic buildings); Sustainable drainage systems (SuDS); Utilising the environment, such as management of the land to reduce runoff and harnessing the ability of wetlands to store water; Identifying areas suitable for inundation and water storage to reduce the risk of flooding elsewhere; and planning to roll back development in coastal areas.

The Brentwood Strategic Flood Risk Assessment (SFRA) (2011) characterised flood risk throughout the Borough of Brentwood based on a range of sources. It highlighted that surface water flooding, resulting from surface water run off exceeding road drains and sewer capacity was the most significant cause of flooding in the Borough. The SFRA recommends that:

“As a minimum, all new development over 0.25 hectares in size (and all development in Flood Zones 2 and 3) should employ Sustainable Drainage Systems (SuDS) with the aim of reducing runoff”; and that:

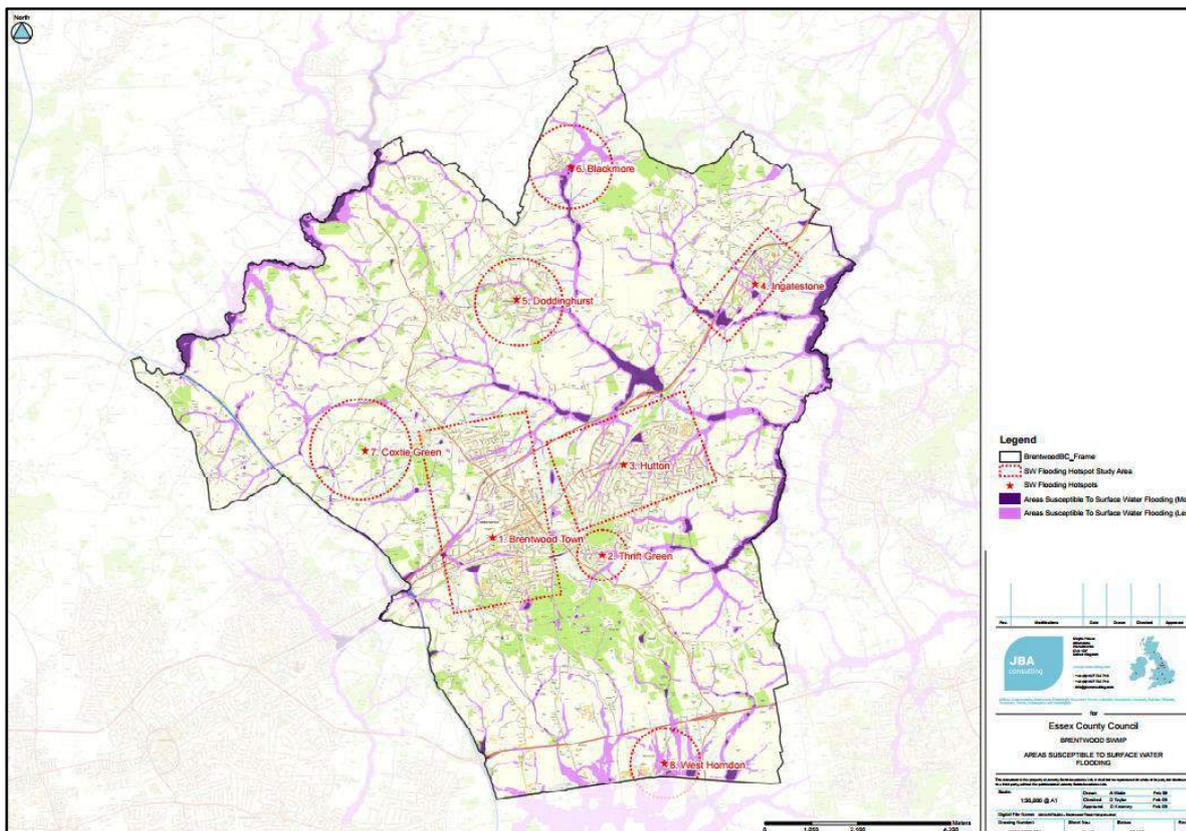
“for much of the urban area of Brentwood the infiltration potential of soils is high, meaning that infiltration SuDS are likely to be suitable. Infiltration options control runoff at source and are high up in the SuDS hierarchy. The feasibility of infiltration on site will need to be determined through a site specific flood risk assessment, however.”

The extent of fluvial flood risk is limited with the majority of areas categorised as Flood Zones 2 and 3 found in rural areas; although Heybridge and Ingatestone and areas to the west and east of the Brentwood urban area are most at risk of flooding. The most significant area of fluvial flood risk is in the north-west of the Borough in the vicinity of the River Roding.⁶⁰

Surface water flooding is associated with drains and sewers becoming overwhelmed during intense rainfall events; and is likely to be the most significant cause of flooding in the Borough⁶⁵. Surface water flood risk is higher in urban areas.⁶⁵ Surface water flooding is likely to continue to be the primary source of flood damage in Brentwood. Such occurrences may become more serious as a result of climate change, which may lead to increasingly intense rainfall events.

The figure below shows the areas within Brentwood which have been identified by the recent Surface Water Management Plan as susceptible to flooding.

Areas susceptible to surface water flooding within Brentwood



Additionally, in response to the Flood Risk Regulations (2009) and the Flood and Water Management Act (2010), and in light of the SFRA findings and the need to develop a strategy for flood risk management, Essex County Council commissioned JBVA Consulting to complete a Surface Water Management Plan (SWMP). A SWMP is a plan which enables local communities and different organisations to better understand flood risk and outlines the preference surface water management strategy which should be implemented at the given location. Based on the key areas identified by the SFRA and Essex County Council a number options and measures were identified for reducing flood risk.

Heritage

There is a need to set out a ‘positive strategy’ for the ‘conservation and enjoyment of the historic environment’, including those heritage assets that are most at risk. Heritage assets should be recognised as an ‘irreplaceable resource’ that should be conserved in a ‘manner appropriate to their significance’, taking account of ‘the wider social, cultural, economic and environmental benefits’ of conservation, whilst also recognising the positive contribution new development can make to local character and distinctiveness.

⁶⁵ Entec (2011) Brentwood Level 1 Strategic Flood Risk Assessment [online] available at: <http://www.brentwood.gov.uk/pdf/21032011162645u.pdf> (accessed 12/2014)

In the context of the Brentwood evidence base; the Brentwood Town Centre Regeneration Strategy Final Report (2010) highlights that as part of the regeneration strategy a key objective is: *“Protecting and enhancing the town’s heritage and many listed buildings”*. The Strategy document also notes that a review of conservation policy and applying the findings of the Conservation Area Appraisal would help achieve some key aims in addressing and conserving Brentwood’s heritage.

Altogether there are 13 conservation areas, 518 listed buildings and 12 scheduled monuments to be found spread across the Borough. In addition, there are three historic parks and gardens, with these being: Thorndon Park, Weald Park and Warley Place.⁶⁰

There are two listed buildings in the Borough which are listed on English Heritage’s Heritage at Risk Register.⁶⁶ These are: Chantry Chapel and Mausoleum (Grade II* listed building; poor condition) and Thoby Priory ruins (Grade II listed building / Scheduled Monument; very bad condition).

Housing

Local planning authorities should significantly boost the supply of housing and seek to ensure that ‘full, objectively assessed needs for market and affordable housing’ are met. With a view to creating ‘sustainable, inclusive and mixed communities’ authorities should ensure provision of affordable housing onsite or externally where robustly justified. Plans for housing mix should be based upon ‘current and future demographic trends, market trends and the needs of different groups in the community’. Larger developments are suggested as sometimes being the best means of achieving a supply of new homes.

The housing market is delivering much less specialist housing for older people than is needed. Central and local government, housing associations and house builders need urgently to plan how to ensure that the housing needs of the older population are better addressed and to give as much priority to promoting an adequate market and social housing for older people as is given to housing for younger people.⁶⁷

Planning policy for traveller sites (2012) sets out the Government’s planning policy for traveller sites and should be used in conjunction with the NPPF. It aims to ensure travellers are treated in a fair and equal manner that facilitates their traditional and nomadic way of life, whilst also respecting the interest of the settled community. Local authorities are called upon to make their own assessment of need for traveller sites - using a robust evidence base and effective engagement with stakeholder groups and other local authorities – and to allocate sites accordingly.

The Brentwood Replacement Local Plan (2005) which this plan will supersede sought to negotiate 35% affordable housing (30% social rented, 5% other affordable housing) on all suitable sites above the thresholds of 20 units and above or on suitable residential sites of 0.66 hectares or more within the Brentwood Urban Area, and on sites of 5 units and above or on suitable sites of 0.16 hectares or more within defined settlements elsewhere in the Borough.

One and two bedroom properties make up a relatively small proportion of the total of the existing housing stock in Brentwood. In the context of longer life expectancy, more household break ups and a growing proportion of young people choosing to live alone, the lack of one and two bedroom properties affects affordability and choice of housing. This can result in the loss of young, economically active, elements of the population and an imbalance in the population structure over the long term. The SHMA recommends that 70% of social rented housing should be one and two bedroom properties, while for intermediate market housing 95% should be one and two bedroom properties.^{Error! Bookmark not defined.}

Landscape

The European Landscape Convention (ELC; 2007) defines landscape as: *“An area, as perceived by people, whose character is the result of the action and interaction of natural and/or human factors.”* It recognises that the quality of all landscapes matters – not just those designated as ‘best’ or ‘most valued’. The NPPF refers to the need to protect and enhance valued landscapes and identifies that major development should be avoided in designated areas, unless in the public interest.

⁶⁶ English Heritage, Brentwood Heritage Risk Register [online] available at: <http://risk.english-heritage.org.uk/register.aspx?rs=1&rt=0&pn=1&st=a&di=Brentwood&ctype=all&crit=> (accessed 12/2014)

⁶⁷ Select Committee on Public Service and Demographic Change (2013) Ready for Ageing? [online] available at: <http://www.parliament.uk/business/committees/committees-a-z/lords-select/public-services-committee/report-ready-for-ageing/> [accessed 12/2014]

The majority of the Borough is of a rural character, with built up areas making up less than 20% of the Borough. The borough's rural areas comprise villages set in a largely attractive rolling landscape, which comprises a mix of agricultural land, woodland, and parks. Three distinct landscape types have been identified within the Borough all of which are regarded as having a relatively high sensitivity to change. These are: River Valley (to the north-west), Wooded Farmland (the majority of the Borough) and Fenland (to the south).⁶⁰

All land outside of settlements in the Borough falls within the London Metropolitan Green Belt. Local authorities with Green Belt should establish boundaries in their local plan, and, once established, Green Belt boundaries should only be altered in exceptional circumstances, through the preparation or review of the local plan. At that time, authorities should consider boundaries having regard to their intended permanence in the long term, so that they should be capable of enduring beyond the plan period. Local authorities should also plan positively to enhance the beneficial use of the Green Belt, notably to 'retain and enhance landscapes, visual amenity and biodiversity'.

Soil and contamination

There is a need to encourage the effective use of land through the reuse of land which has been previously developed, provided that this is not of high environmental value. The NPPF requires an approach to housing density that reflects local circumstances.

The NPPF calls upon the planning system to protect and enhance soils. It expects local planning authorities 'to take into account the economic and other benefits of the best and most versatile agricultural land. Where significant development on agricultural land is necessary, local planning authorities should seek to use areas of poorer quality land in preference to that of a higher quality.

New or existing development should also be prevented from being 'adversely affected' by the presence of 'unacceptable levels' of soil pollution or land instability and be willing to remediate and mitigate 'despoiled, degraded, derelict, contaminated and unstable land, where appropriate'.

Since 2001, Brentwood has achieved a consistently high proportion of residential developments on previously developed land (PDL)⁶⁸ averaging 99% over the 11 years to 2012.⁶⁹

There are currently no entries on the Council's Contaminated Land Register.⁷⁰

The majority of agricultural land is classed as being of Grade 3 quality. There are some areas of higher quality (Grade 2) land, mainly located in the north of the Borough. This data comes from the nationally available 'provisional' agricultural land quality dataset, which is very low resolution and does not differentiate between grade 3a and 3b agricultural land. A very small proportion of the Borough's agricultural has been surveyed in detail, in order to ascertain with certainty whether or not it is 'best and most versatile', i.e. of grade 1, 2 or 3a quality.

Waste

National Planning Policy for Waste was recently published, and it is the intention that it should be read in conjunction with the NPPF, the National Waste Management Plan for England and national policy statements for waste water and hazardous waste. All local planning authorities should have regard to its policies when discharging their responsibilities to the extent that they are appropriate to waste management. The National Policy emphasises: by driving waste management up the waste hierarchy; ensuring that waste management is considered alongside other spatial planning concerns, such as housing and transport; providing a framework in which communities and businesses are engaged with and take more responsibility for their own waste; helping to secure the re-use, recovery or disposal of waste without endangering human health and without harming the environment; and ensuring the design and layout of new residential and commercial development and other infrastructure complements sustainable waste management, including the provision of appropriate storage and segregation facilities to facilitate high quality collections of waste.

⁶⁸ NB In June 2010 the definition of PDL was changed by government. Residential gardens are now to be classified as Greenfield land in residential use. Garden land or land adjoining residential properties makes up a significant amount of the Boroughs housing supply.

⁶⁹ Brentwood Borough Council - Annual Monitoring Reports (2004-2012) [online] available at <http://www.brentwood.gov.uk/index.php?cid=880> (accessed 12/2014)

⁷⁰ Contaminated Land Study [online] available at: <http://www.brentwood.gov.uk/index.php?cid=718> (accessed 12/2014)

Water quality and water resources

The EU's 'Blueprint to Safeguard Europe's Water Resources' highlights the need for Member States to reduce pressure on water resources, for instance by using green infrastructure such as wetlands, floodplains and buffer strips along water courses. This would also reduce the EU's vulnerability to floods and droughts. It also emphasises the role water efficiency can play in reducing scarcity and water stress.

The NPPF states that local authorities should produce strategic policies to deliver the provision of a variety of infrastructure, including that necessary for water supply and should encourage and incentivise water efficiency measures at the demand side⁷¹.

In this regard, Brentwood Borough Council commissioned Entec UK Limited to produce a water cycle study (2011). This Water Cycle Study assesses the capacities of water bodies and water related infrastructure to accommodate future development and growth in Brentwood Borough and it forms part of the evidence base for the local development plan.

In line with environment agency guidelines the study sets the context of the study area and assesses environmental and infrastructure capacity to identify the most suitable locations for growth. Where constraints occur, the Outline phase recommends further work as part of a Detailed Phase Water Cycle Study.

Essex is in an area of serious water stress and so options to develop new resources are considered to be limited. However, based on water company plans,⁷² water supply is not seen as being a constraint to potential growth in the Borough.

The Wastewater Treatment Works at Doddinghurst and Ingatestone are currently at capacity and unable to receive any additional flow. This lack of capacity may affect growth in Tipps Cross, Ingatestone Fryerning and Mountnessing Wards, plus the eastern half of Brizes and Doddinghurst Ward (including Kelvedon Hatch and Doddinghurst). The Water Cycle Study recommended that growth in these areas be avoided; however subsequently Anglian Water has stated that they would take the necessary steps to accommodate further growth in these catchments should it come forward.

In terms of water quality, the water quality of rivers in the Borough is generally 'Moderate' status. The Rivers Ingrebourne, Mardyke and Wid each classed as having 'Poor' status. The chemical status of groundwater bodies in the Borough is classified as 'Poor'.⁷³ Climate change projections for Essex⁷⁴ also list the risk of decreased water (particularly in summer) as an issue reduced water as a sustainability issue, exacerbated by a potential increase in demand.

⁷¹ Defra (2011) Water for life (The Water White Paper) [online] available at: <http://www.official-documents.gov.uk/document/cm82/8230/8230.pdf> (accessed 12/2014)

⁷² These plans involve demand management measures together with increased capacity at Abberton reservoir.

⁷³ Entec (2011) Brentwood Scoping and Outline Water Cycle Study [online] available at: <http://www.brentwood.gov.uk/pdf/21032011165157u.pdf> (accessed 12/2014)

⁷⁴ Thurrock Council (2008) Thurrock Climate Change Evidence Base [online] available at http://www.thurrock.gov.uk/planning/strategic/pdf/ldf_tech_climate_2008.pdf (accessed 12/2014)

APPENDIX III - SITE OPTIONS APPRAISAL

Introduction

As explained within Chapters 4 and 5, one work-stream has involved subjecting site options to appraisal using a GIS-based methodology. The aim of this appendix is to -

- 1) explain the methodology; and then
- 2) present appraisal findings.

N.B. the term ‘appraisal’ is used loosely. Whilst an aim of this SA Report is to present a formal appraisal of ‘reasonable alternatives’, it does not follow that an aim is to present a formal appraisal of site options. This is because site options are not reasonable alternatives (see para 4.1.7). The aim of site options appraisal is to contribute to “an outline of the reasons for selecting the alternatives dealt with” (Schedule 2(8)).

Developing the methodology

It was not possible to simply apply the SA framework (i.e. the list of SA topics/objectives presented in Table 3.1, above) given the number of site options, limited data availability and the imperative importance of maintaining objectivity (‘a level playing field’).

As such, work was undertaken to develop a criteria-based methodology suited to the appraisal of site options using GIS software.

The broad scope of the site options appraisal criteria are introduced in **Table A**, below. The table aims to demonstrate that the criteria reflect the SA framework as closely as possible.

Table B then lists the criteria concisely alongside the rules that have been applied to categorise the performance of sites. The performance of sites is categorised on the following scale - ⁷⁵

Dark green	Site performs particularly well
Light green	Site performs well
No shading	No issue in terms of this criterion
Amber	Site performs poorly
Red	Site performs particularly poorly

N.B. it is important to be clear that the aim of categorising the performance of site options is to aid differentiation, i.e. to highlight instances of site options performing relatively well / poorly.

The intention is not to indicate an effect with any particular significance.

⁷⁵ It is important to be clear that the aim of categorising the performance of site options is to aid differentiation, i.e. to highlight instances of site options performing relatively well / poorly. The intention is not to indicate whether a ‘significant effect’ is predicted.

Table A: Scope of the site options appraisal methodology

Topic	Relevant criteria (Location in relation to...)	Notes
Air quality	<ul style="list-style-type: none"> Air Quality Management Area (AQMAs) 	<p>Good data exists to inform the appraisal, as AQMAs are designated where air quality is problematic. However, there is only the potential to measure proximity to an AQMA (i.e. there is not potential to model traffic flows between sites and AQMAs).</p>
Biodiversity	<ul style="list-style-type: none"> Site of Scientific Interest (SSSI) Locally designated wildlife sites Ancient Semi Natural Woodland Local Nature Reserves Other woodland 	<p>Good data is available to inform the appraisal. It is fair to assume that sites in close proximity are sensitive, including because development can lead to recreational impacts.</p> <p>However, it has not been possible to draw on any locally commissioned work to identify further areas of constraint/opportunity (e.g. particularly sensitive locally designated wildlife sites or other areas contributing to 'green infrastructure').</p>
Climate change mitigation		<p>No data is available to inform the appraisal. Whilst some site options may well have greater potential to incorporate on-site low carbon and renewable energy technologies (including on account of the scale and density of development or the terrain and aspect of the site), or link to a decentralised source of low carbon / renewable energy, there is insufficient evidence to enable robust analysis.</p>
Community and well-being	<ul style="list-style-type: none"> GP surgery Primary school Secondary school 	<p>Limited data is availability of data to inform the appraisal. Proximity to community infrastructure is important, particularly for residents who are less mobile (e.g. the elderly); however, there are few available borough-wide datasets. Also, data is not available to show the location of facilities outside the Borough, which could prejudice against sites near to the Borough boundary. Also, a limitation relates to there being no ability to take into account the potential for development at a particular site to put additional pressures on community infrastructure locally, or for the analysis to evaluate the potential for development to fund new community infrastructure.</p> <p>N.B. there is now the potential to calculate distance by road, rather than 'as the crow flies'. This is an important methodological improvement since the 2016 Draft Plan stage.</p>
Cultural heritage	<ul style="list-style-type: none"> Conservation area Registered park or garden Scheduled monument Listed building 	<p>Limited data is available to inform the appraisal. Whilst there is good potential to highlight where development in proximity to a heritage asset might impact negatively on that asset, or its setting, a limitation relates to the fact that it has not been possible to gather views from heritage specialists on sensitivity of assets / capacity to develop sites. This is a notable limitation as potential for development to conflict with the setting of historic assets / local historic character can only really be considered on a case-by-case basis rather than through a distance based criteria. It will also sometimes be the case that development can enhance heritage assets.</p>

Topic	Relevant criteria (Location in relation to...)	Notes
Economy and employment		No data exists to inform the appraisal. It is not deemed appropriate to measure the distance between housing sites and employment sites, as an indicator of how well a housing site option performs from a perspective of supporting economy/employment objectives.
Flooding	<ul style="list-style-type: none"> Flood risk zone 	Good data exists to inform the appraisal in terms of flood risk, although the available data relates to fluvial (river) flood risk only. Data on surface water flood risk is now available, and will be drawn upon in the future.
Housing		No data exists to inform the appraisal. It would not be appropriate to suggest that a large site performs better than a small site simply because there is the potential to deliver more homes. Housing objectives could be met through the delivery of numerous small sites, or through delivery of a smaller number of large sites (albeit it is recognised that financial viability, and hence the potential to deliver affordable housing, can be higher at large sites).
Landscape	<ul style="list-style-type: none"> Special Landscape Area (SLA) Landscape Improvement Area Green Belt 	Limited data is available to inform the appraisal. Work is ongoing to ensure that all site options are categorised in terms of potential for landscape impacts and also the potential to result in loss of functioning Green Belt (i.e. Green Belt that meets the established purposes). This work will be drawn upon in the future.
Soil and contamination	<ul style="list-style-type: none"> High quality agricultural land⁷⁶ 	Limited data is available to inform the appraisal. The only dataset available for the whole plan area is the national 'provisional agricultural land quality' dataset, which is very low resolution and does not differentiate between grades 3a and 3b.
Waste		No data exists to inform the appraisal. It would not be appropriate to assume that larger schemes, or residential development in close proximity to recycling centres, will necessarily lead to better waste management.
Water quality and water resources		<p>No data is available to inform appraisal in terms of water quality; however, this is not a major issue for the appraisal.⁷⁷ Whilst water pollution sensitivity may vary spatially (including relating to issues associated with the capacity of Waste Water Treatment Works), in the absence of a detailed Water Cycle Study there is no mapped data. It is also the case that issues can often be appropriately addressed through masterplanning/ design measures, and so are appropriately considered at the planning application stage. The same can be said for drainage issues.</p> <p>In terms of water resource availability, this does not vary significantly within the Borough, and hence need not be a consideration here. It is also not possible to appraise site options in terms of the potential to support water efficiency. Whilst it might be suggested that larger development schemes might be more able to deliver higher standards of sustainable design (including water efficiency measures) this assumption will not always hold true.</p>

⁷⁶ Agricultural land is classified into five grades, with grade one being of the best quality. High quality agricultural land is a finite resource, in that it is difficult if not impossible to replace it.

⁷⁷ It is unnecessary to appraise site options in terms of groundwater 'source protection zones' and 'primary aquifers'. The presence of a groundwater source protection zone or aquifer does not represent a major constraint for most (non-polluting) types of development.

Table B: Site appraisal criteria with performance categories

Criteria (Location in relation to...)		Performance categories	Notes
1	Air Quality Management Area (AQMA)	R = AQMA covering or adjacent to the site A = <1,000m	Impact thresholds are unknown, and so the RAG thresholds reflect the spread of the data. N.B. There is no potential to take into account the size of the site option involved, i.e. make the assumption that large sites are problematic. This rule also applies to other criteria below. If small sites were shown to perform relatively well, despite being in close proximity to a sensitive location, there would be a risk that numerous small sites would come forward in close proximity leading to negative effects.
2	Site of Scientific Interest (SSSI)	R = <800m of SSSI A = <2,000m	Natural England has defined SSSI Impact Risk Zones for the three SSSIs present in the Borough. Impact Risk Zones relating to residential developments of 100 residential units or more tend to extend to 2km from the SSSIs' boundaries. However a further threshold of 800m is added to reflect the number of sites within an Impact Risk Zone.
3	Local Nature Reserve	G = <2,000m R = Intersect	People are unlikely to travel far to access a LNR, and so it is only appropriate to flag sites green where they are within 2km. Given LNRs' biodiversity sensitivity, it is also appropriate to flag as red those sites which intersect with an LNR.
4	Ancient Semi Natural Woodland	R = Intersect A = <400m	The thresholds reflect an understanding that County Wildlife Sites and ASNWs have relatively low sensitivity. 400m is a walkable distance.
5	Local Wildlife Site	R = Intersect A = <400m	
6	Woodland	A = Intersect	The threshold reflects an understanding that non-designated woodland tends to have lower sensitivity.
7	GP surgery	R = >1.5km A = 800m-1.5km G = <800m	Department for Transport guidance ⁷⁸ suggests 800m as a walkable distance for those accessing a primary school or GP surgery. Secondary school children will tend to be comfortable travelling a longer distance. N.B. The distance calculated is by road , rather than 'as the crow flies'.
8	Primary school	R = >1.5km A = 800m-1.5km G = <800m	
9	Secondary school	R = >3km A = <1.5 - 3km G = <1.5km	

⁷⁸ WebTag (January 2014) Unit A4.2 paragraph 6.4.5, Department for Transport

Criteria (Location in relation to...)	Performance categories	Notes
10 Conservation Area	R = Intersect A = <400m	It is appropriate to 'flag' a red where a site is within, intersects or is adjacent to a Conservation Area. It is also appropriate to flag sites that might more widely impact on the setting of a Conservation Area. A 400m threshold is assumed.
11 Scheduled Monument	R = <100m	It is appropriate to 'flag' sites that intersect, are adjacent or within 100m of a Scheduled Monument.
12 Registered Park or Garden	R = <100m A = <400m	It is appropriate to 'flag' sites that intersect, are adjacent or within 100m of a Registered Park or Garden. It is also appropriate to flag sites that might more widely impact on the setting of a Registered Park or Garden. A 400m threshold is assumed.
13 Listed building	R = <5m A = <50m	It is appropriate to 'flag' sites that intersect, are adjacent or within 5m of a listed structure. It is also appropriate to flag sites that might more widely impact directly on the setting of a listed structure. A 50m threshold is assumed.
14 Flood risk zone	R = > 10% of site intersects a flood risk zone A = 1 - 10% of site intersects a flood risk zone	The extent of flood risk zone 2 does not extend far beyond the extent of flood risk zone 3. As such, it is appropriate to consider the two together. The thresholds also reflect the fact that small areas of flood risk can be left undeveloped.
15 Special Landscape Area	A = Intersect	The criteria reflect potential effects on landscape character in these areas.
16 Green Belt	A = Intersect	The Green Belt is not specifically a landscape designation, and hence does not have a setting.
17 Agricultural land	R = Grade 2 A = Grade 3	<p>No sites are covered by land classified as Grade 1 agricultural land.</p> <p>N.B. The agricultural land dataset is of a poor resolution, so much so that it shows entire settlements to be comprised of agricultural land. Some of the sites 'flagged' as red or amber are in fact brownfield or non-agricultural.</p>

Site options appraisal findings

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

Notes on the table -

- All sites considered through the Council's HELA are shown, except those that are now a commitment, i.e. have planning permission.
- Sites are categorised by 'type' as follows: Community or leisure use (C); Employment uses (E); Housing use (H); Mixed use (M).
- It is recognised that only limited understanding can be gained from Table C. The spreadsheet containing the underlying data is available upon request.

Table C: Site options appraisal findings

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Site	Name	Use	Ha.	Flood risk	SSSI	Local Wildlife Site	Local Nature Reserve	Ancient woodland	Woodland	Green Belt	Conservation area	Scheduled Monument	Registered Park/Garden	Listed building	Special landscape area	AQMA	Agricultural land	GP	Primary school	Secondary school
155	Brentwood School, Middleton Hall Lane, Brentwood	C	20.26																	
238	Land between Navestock and Green Lane, Navestock	C	4.79																	
085A	Tipps Cross Community Hall, Blackmore Road, Tipps Cross	C	0.19																	
101Aii	Brentwood Enterprise Park (M25 Works Site at A127/M25 junction 29)	E	35.47																	
112A	Childerditch Industrial Estate	E	11.25																	
177	Land at Wash Road, south of Lower Road, Hutton	E	10.54																	
101C	Codham Hall Farm	E	9.62																	
187	Land south of East Horndon Hall	E	8.7																	
112E	Childerditch Industrial Estate	E	7.05																	
101B	Codham Hall Farm	E	6.64																	
114B	Hubert Road Industrial Estate, Brentwood	E	3.78																	
118	BT Centre	E	3.59																	
109	East Horndon Hall Business Park, Tilbury Road	E	3.47																	

Site	Name	Use	Ha.	Flood risk	SSSI	Local Wildlife Site	Local Nature Reserve	Ancient woodland	Woodland	Green Belt	Conservation area	Scheduled Monument	Registered Park/Garden	Listed building	Special landscape area	AQMA	Agricultural land	GP	Primary school	Secondary school
312	Land east of Nags Head Lane Sewage Treatment Works, Brentwood	E	3.39																	
116	Warley Hill Business Park	E	3.22																	
113A	Hallsford Bridge Industrial Estate	E	2.81																	
111	Upminster Trading Park	E	2.63																	
112D	Childerditch Industrial Estate	E	2.34																	
079C	Land adjacent to Ingatestone by-pass (part bounded by Roman Road)	E	2.06																	
127	Land at M25 Junction 28, Brook Street, Brentwood	E	1.17																	
112C	Childerditch Industrial Estate	E	1.08																	
175A	Land at M25 J28, Brook Street, Brentwood (inc. buildings), and surrounding land	E	0.84																	
115B	Brook Street Employment Area	E	0.67																	
112B	Childerditch Industrial Estate	E	0.6																	
113B	Hallsford Bridge Industrial Estate	E	0.59																	
115A	Brook Street Employment Area	E	0.58																	
119	OCE offices, Chatham Way, Brentwood	E	0.45																	
122	1-7 & 16-26 St Thomas Road, Brentwood	E	0.22																	
125	North House, Ongar Road, Brentwood	E	0.18																	
120	47-57 Crown Street	E	0.12																	
124	Regency House, 38 Ingrave Road, Brentwood (adjacent Town Hall)	E	0.07																	
123	7-9 Shenfield Road, Brentwood	E	0.06																	
028C	Land east of Running Waters, Brentwood	H	349.7																	
192	Heron Hall, Herongate, Brentwood	H	239.1																	
038B	Land East of Thorndon Avenue, West Horndon	H	68.56																	

Site	Name	Use	Ha.	Flood risk	SSSI	Local Wildlife Site	Local Nature Reserve	Ancient woodland	Woodland	Green Belt	Conservation area	Scheduled Monument	Registered Park/Garden	Listed building	Special landscape area	AQMA	Agricultural land	GP	Primary school	Secondary school
028B	Land east of Running Waters, Brentwood	H	58.33	Yellow	Red	Red		Yellow	Yellow	Yellow	Yellow		Red	Yellow	Yellow		Yellow	Red	Yellow	Yellow
302C	Land off Ongar Road, Pilgrims Hatch	H	53.04			Red		Red				Red	Red	Red		Red	Yellow	Green	Green	Green
038C	Land East of Thorndon Avenue, West Horndon	H	52.07		Red	Yellow					Red		Red				Yellow	Green	Green	Red
287	Land to the east of Mascalls Lane	H	48.27	Yellow	Yellow	Red								Yellow			Yellow	Green	Green	Yellow
037C	Land West of Thorndon Avenue, West Horndon	H	38.94		Yellow	Red					Yellow				Yellow		Yellow	Red	Red	Red
296	Land between A12 and Hall Lane, Shenfield	H	38.72			Red		Red	Yellow								Yellow	Green	Green	Green
037B	Land West of Thorndon Avenue, West Horndon	H	35.77		Red	Yellow					Yellow						Yellow	Red	Red	Red
037	Land West of Thorndon Avenue, West Horndon	H	31.24	Yellow	Yellow	Yellow											Yellow	Red	Red	Red
268A	Land to the east of Wash Road, Brentwood	H	27.68			Red	Red				Yellow						Yellow	Red	Yellow	Yellow
028A	Land east of Running Waters, Brentwood	H	26.57		Red	Red							Red	Yellow	Yellow		Yellow	Red	Yellow	Green
314	Land to the south of Rayleigh Road, Hutton	H	24.99			Yellow	Green				Yellow						Yellow	Red	Red	Yellow
203	Land to the West of Blackmore, off Blackmore Road	H	24.57			Yellow					Yellow						Yellow	Red	Green	Red
316	Land to the South Side of Hook End Road, Doddinghurst	H	21.29		Yellow	Yellow		Yellow									Yellow	Green	Green	Red
034	Officer's Meadow, land off Alexander Lane, Shenfield	H	20.8	Yellow		Red	Green	Red	Yellow								Yellow	Yellow	Green	Green
024B	Sawyers Hall Farm, Sawyers Hall Lane/Doddinghurst Road, Brentwood	H	19.58			Yellow		Yellow								Yellow	Yellow	Green	Green	Green
126	Land East of West Horndon, South of Station Road	H	19.47		Yellow	Yellow											Yellow	Green	Green	Red
303A	Land at Orchard Farm, Little Warley	H	19.03				Green			Yellow						Yellow	Yellow	Red	Red	Red
264	Land at Havering Grove Farm, Rayleigh Road, Hutton	H	17.76	Yellow		Yellow	Green	Yellow						Yellow			Yellow	Red	Red	Yellow
299	Land at Weald Road and Honeyput Lane (land adj. to former site of St Faiths Hospital)	H	15.62		Yellow	Yellow			Yellow							Yellow	Yellow	Green	Yellow	Green
254D	Land at Bennetts Farm, Weald Road, South Weald	H	14.08	Yellow		Yellow	Green	Red	Yellow				Yellow		Yellow	Red	Yellow	Red	Yellow	Red
324	Land at Oakhurst Farm, Coxtie Green Road	H	13.76			Yellow				Yellow							Yellow	Red	Red	Red
302A	Land off Ongar Road, Pilgrims Hatch	H	13.22			Yellow		Yellow		Yellow			Red	Yellow	Yellow	Yellow	Yellow	Yellow	Green	Yellow

Site	Name	Use	Ha.	Flood risk	SSSI	Local Wildlife Site	Local Nature Reserve	Ancient woodland	Woodland	Green Belt	Conservation area	Scheduled Monument	Registered Park/Garden	Listed building	Special landscape area	AQMA	Agricultural land	GP	Primary school	Secondary school
290	Land to the east of Hall Lane, Shenfield	H	13.18	Red						Yellow				Yellow			Yellow	Yellow	Green	Green
218A	Land East of Hall Lane, Shenfield	H	12.42			Yellow		Yellow	Yellow								Yellow	Yellow	Green	Green
255	Land at Broadfields, Tilbury Road, East Horndon	H	11.97		Red	Red		Red			Red		Red					Yellow	Yellow	Red
325	Tylers Hall Farm, Nags Head Lane	H	11.43			Yellow	Green	Yellow							Yellow	Red	Yellow	Red	Red	Red
277A	Land at Drury's Farm, Roman Road, Mountnessing	H	11.39			Yellow	Green	Yellow						Red	Yellow	Yellow	Yellow	Red	Green	Yellow
008B	Woodlands School, Rayleigh Road, Hutton	H	11.22				Green				Yellow			Yellow				Red	Red	Yellow
243	Parklands, High Street, Ingatestone	H	11.18								Yellow			Yellow	Yellow					Green
022	Land at Honeypot Lane, Brentwood	H	10.93		Yellow	Yellow			Yellow							Yellow				Yellow
268B	Land to the east of Wash Road, Brentwood	H	10.87	Red		Yellow	Red	Yellow										Red	Red	Yellow
317	Land and buildings south west of Rayleigh Road, Hutton	H	10.81				Green				Red			Yellow				Red	Yellow	Yellow
291B	Land North West of Shenfield, access via Hallwood Crescent	H	10.65		Yellow	Red		Yellow								Yellow		Yellow	Green	Green
220	Collins Farm, Goodwoods Ave, Hutton	H	10.24			Yellow	Green				Yellow							Red	Red	Yellow
263	Land east of Chelmsford Road, Shenfield	H	9.85			Red	Green	Red	Yellow									Red	Yellow	Green
303B	Land at Orchard Farm, Little Warley	H	9.71						Yellow							Yellow		Red	Red	Red
289	Land to the east of Goodwood Avenue, Hutton	H	9.49				Green				Yellow							Red	Yellow	Yellow
282	Land north east of Church Road, Watton's Green	H	9.41		Red		Green									Red		Red	Red	Red
201	Land to West of Place Farm Lane, Kelvedon Hatch	H	9.35		Red	Yellow		Yellow										Green	Green	Red
245	Land at Hook End Farm, Hook End	H	9.29		Yellow									Yellow				Green	Red	Red
037A	Land West of Thorndon Avenue, West Horndon	H	8.42	Yellow		Yellow		Yellow										Green	Yellow	Red
283A	Land to the east of Warley Street	H	8.2		Yellow	Red	Green	Red							Yellow			Red	Red	Red
212	Coombe Woods, Beredens Lane, Warley	H	7.96			Red		Red	Yellow		Yellow			Yellow	Yellow			Red	Red	Red
038A	Land East of Thorndon Avenue, West Horndon	H	7.91		Yellow	Yellow		Yellow									Green	Green	Red	Red

Site	Name	Use	Ha.	Flood risk	SSSI	Local Wildlife Site	Local Nature Reserve	Ancient woodland	Woodland	Green Belt	Conservation area	Scheduled Monument	Registered Park/Garden	Listed building	Special landscape area	AQMA	Agricultural land	GP	Primary school	Secondary school
141	Brentwood Leisure Park at Warley Gap	H	7.84																	
315	Land to the south of Sylvia Avenue, Hutton	H	7.4																	
254B	Land at Bennetts Farm, Weald Road, South Weald	H	6.88																	
117A	Ford Warley - Southern Site	H	6.81																	
260	Leverton Hall, Dark Lane, Brentwood	H	6.8																	
291A	Land North West of Shenfield, access via Hall Lane	H	6.47																	
254C	Land at Bennetts Farm, Weald Road, South Weald	H	6.41																	
323	Land lying to the north west side of Murthering Lane, Navestock	H	6.25																	
254A	Land at Bennetts Farm, Weald Road, South Weald	H	6.16																	
156A	Greenacres Riding Stables & land opposite, Beads Hall Lane, Pilgrims Hatch	H	6.16																	
023A	Land off Doddinghurst Road, either side of A12, Brentwood	H	5.99																	
199	Land to the East Of Ingatestone Road. Blackmore	H	5.95																	
032	Land east of Nags Head Lane, Brentwood	H	5.88																	
204	Land to North of Blackmore Road, Blackmore Road, Kelvedon Hatch	H	5.83																	
198	Land to South of Doddinghurst Road, Pilgrim Hatch	H	5.69																	
253	Land north of Bakers Farm, Roman Road, Mountnessing	H	5.51																	
277B	Land south of Drury's Farm, Roman Road, Mountnessing	H	5.27																	
183	Former sewage pumping station at Ingrave Hall, Ingrave	H	5.07																	
273	Chivers, Chivers Road, Kelvedon Hatch	H	4.89																	
302B	Land off Ongar Road, Pilgrims Hatch	H	4.88																	
088	Bishops Hall Community Centre and Land	H	4.84																	
106	Site adjacent to Ingatestone Garden Centre (former A12 works site)	H	4.64																	

Site	Name	Use	Ha.	Flood risk	SSSI	Local Wildlife Site	Local Nature Reserve	Ancient woodland	Woodland	Green Belt	Conservation area	Scheduled Monument	Registered Park/Garden	Listed building	Special landscape area	AQMA	Agricultural land	GP	Primary school	Secondary school
261	Chindits Lane, Warley	H	4.63		Red	Yellow		Yellow		Yellow					Yellow			Green	Green	Yellow
174	Land south of Hook End Road, Doddinghurst	H	4.56		Yellow			Yellow						Yellow			Yellow	Green	Red	Red
044	Land at Priests Lane (west), Brentwood	H	4.51		Yellow			Yellow								Yellow		Yellow	Green	Green
297	Land to the west of Hall Wood, Shenfield	H	4.51			Yellow		Yellow		Yellow						Yellow		Yellow	Green	Green
202A	Land to the South of Blackmore, off Blackmore Road	H	4.46			Yellow					Red			Yellow			Red	Red	Green	Red
211	Land and building on the West of Church Lane, Hutton	H	4.23				Green		Yellow		Red			Yellow			Yellow	Red	Yellow	Green
162	Little Warley Hall Farm, Little Warley Hall Lane, Little Warley	H	4.1		Yellow			Yellow						Yellow			Yellow	Red	Red	Red
218B	Land East and West of Hall Lane, Shenfield	H	4.07			Yellow		Yellow									Yellow	Yellow	Green	Green
304	681 Rayleigh Road, Hutton, Brentwood	H	3.83				Green			Yellow							Yellow	Red	Red	Red
248	Wyevale Garden Centre, Ongar Road	H	3.82	Red						Yellow					Yellow			Red	Red	Red
310	Land at Dagwood Lane, Doddinghurst	H	3.82		Yellow	Red		Yellow		Yellow							Yellow	Red	Yellow	Red
090	Land rear of St. Thomas of Canterbury School, Sawyers Hall Lane, Brentwood	H	3.82		Yellow	Yellow		Yellow								Yellow		Green	Green	Green
008C	Land adjacent Woodlands School, Rayleigh Road, Hutton	H	3.68				Green				Red			Red			Yellow	Red	Red	Yellow
292C	Suffolk House Yard, Ashwells Road, Pilgrims Hatch	H	3.59							Yellow							Yellow	Red	Yellow	Red
104	Land at Stondon Massey scrapyard, Clapgate, Chivers Road, Stondon Massey	H	3.58		Red	Red		Yellow		Yellow					Yellow		Yellow	Red	Red	Red
279	Land to the south east of Bird Lane, Great Warley	H	3.5		Yellow	Yellow		Yellow							Yellow		Yellow	Red	Red	Red
164	North of Hay Green Lane, Wyatts Green	H	3.46							Yellow							Yellow	Yellow	Yellow	Red
128	Ingatestone Garden Centre, Roman Road, Ingatestone	H	3.45				Green		Yellow						Yellow	Red		Red	Red	Yellow
313	Land between 55 Middle Road and Brookside Farm, Ingrave	H	3.43		Yellow	Yellow		Yellow			Yellow		Yellow		Yellow		Yellow	Red	Yellow	Yellow
295	Pottagers Land, Hunters Chase Garden Centre, Rayleigh Road, Hutton, Brentwood	H	3.42				Green		Yellow								Yellow	Red	Red	Red
286	Long Plantation, Brentwood Road, Herongate	H	3.39		Red	Yellow			Yellow		Red		Red	Yellow	Yellow			Red	Green	Red
077	Land south of Redrose Lane, north of Woollard Way, Blackmore	H	3.3							Yellow	Yellow						Red	Red	Green	Red

Site	Name	Use	Ha.	Flood risk	SSSI	Local Wildlife Site	Local Nature Reserve	Ancient woodland	Woodland	Green Belt	Conservation area	Scheduled Monument	Registered Park/Garden	Listed building	Special landscape area	AQMA	Agricultural land	GP	Primary school	Secondary school
190	Gardeners, Ongar Road, Kelvedon Hatch	H	3.29		Yellow	Yellow			Yellow	Yellow							Yellow	Red	Yellow	Red
270	Hartswood Road Allotments	H	3.28		Red			Yellow		Yellow						Yellow		Yellow	Yellow	Green
301	Land to the east of Sawyers Hall Farm, Brentwood	H	3.26			Yellow												Red	Red	Red
053B	Land rear of 146-148 Hatch Road, Pilgrims Hatch	H	3.23			Yellow			Yellow							Yellow		Red	Green	Yellow
281A	Land north of Pilgrims Hatch	H	3.1							Yellow							Yellow	Red	Yellow	Yellow
189	Former Catrina Nursery, Ongar Road, Pilgrims Hatch	H	2.98						Yellow								Yellow	Red	Green	Red
081	Council Depot, The Drive, Warley	H	2.98		Red	Red		Red										Yellow	Yellow	Yellow
306	Lingwood & land to east, Ashwell Road, Brentwood	H	2.94		Yellow	Yellow				Yellow								Red	Green	Red
159	Land off Crow Green Lane, Pilgrims Hatch	H	2.82							Yellow				Yellow		Yellow		Red	Yellow	Yellow
219	Land to the East of Hutton Village, Hutton	H	2.82				Green				Red			Yellow				Red	Yellow	Yellow
016B	Woodlands School, Warley Street, Great Warley	H	2.77		Yellow	Red	Green	Yellow							Yellow		Yellow	Red	Red	Red
095B	The Water Meadows, Mountnessing	H	2.76				Green		Yellow						Yellow		Yellow	Red	Green	Red
202B	Land to the South of Blackmore, off Blackmore Road	H	2.73			Yellow					Red			Yellow			Red	Red	Green	Red
011B	Land to the North of Ongar Road, Pilgrims Hatch	H	2.67			Yellow				Yellow				Red			Yellow	Red	Yellow	Yellow
318	Land east of Honeypot lane, Brentwood	H	2.65		Yellow					Yellow						Yellow		Yellow	Yellow	Yellow
056B	Land at Hayden and Ardslia, Wyatts Green Road, Wyatts Green	H	2.51			Yellow			Yellow					Yellow			Yellow	Red	Yellow	Red
071	Wyatts Field, Wyatts Green	H	2.49							Yellow							Yellow	Red	Yellow	Red
195	Birchwood, School Road, Kelvedon Hatch	H	2.47		Red	Red		Yellow	Yellow									Green	Green	Red
281B	Land north of Pilgrims Hatch	H	2.47			Yellow		Yellow		Yellow							Yellow	Red	Yellow	Yellow
266	Land adjacent Tye Lodge, Doddinghurst Road, Pilgrims Hatch	H	2.45			Red		Red	Yellow								Yellow	Red	Red	Yellow
030A	Land at Bayleys Mead, off Hanging Hill Lane, Hutton	H	2.36			Yellow	Green	Yellow	Yellow									Red	Red	Green
166	La Plata Grove, Brentwood	H	2.35		Yellow				Yellow		Yellow					Yellow		Yellow	Red	Green

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236	Land at Ashwells Cottages, Pilgrims Hatch	H	2.26																	
025	Land at Ingrave Road (198, 198a, 198b & 176), Brentwood	H	2.21																	
083	Land west of Warley Hill, Pastoral Way, Warley	H	2.21																	
023B	Land off Doddinghurst Road, either side of A12, Brentwood	H	2.2																	
272	Park Road Allotments	H	2.17																	
075B	Land off Stocks Lane, Kelvedon Hatch	H	2.15																	
179	Land adj. Wybarns Farm and Mount Pleasant Cottage, Chelmsford Road, Shenfield	H	2.13																	
214	Land North West Side of Blackmore Road, Stondon Massey	H	2.1																	
288B	Land to the north west of Roman Road, Ingatestone	H	2.05																	
153	Land to South of Fryerning Lane, Ingatestone	H	1.99																	
069	Land west of Nine Ashes Road, Stondon Massey	H	1.96																	
142	(Land North-East of Thoby Farm) St Annwys Road, Mountnessing, Brentwood	H	1.95																	
143	Land East of Peartree Lane and North of Peartree Close	H	1.94																	
058B	Hall Lane Farm, Little Warley	H	1.92																	
308	Berendens Lane, Great Warley	H	1.88																	
067B	Salmonds Farm, Salmonds Grove, Ingrave	H	1.88																	
262	Land adjacent to the Hirst, Church Lane, Doddinghurst	H	1.87																	
188	Land at Ashwells Lodge, Blackmore Road, Doddinghurst	H	1.86																	
078	Land at Parklands, High Street, Ingatestone	H	1.83																	
031	Home Meadow, land adjacent to 12 Tyburns, Hutton	H	1.82																	
309	Lorropark, Church Ln, Doddinghurst	H	1.77																	
196	Land to North West of Lowes Farm, Wyatts Green Road, Wyatts Green	H	1.76																	

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087	Land at Alexander Lane, Shenfield	H	1.73																	
206	Land to North of Reeves Close, Stondon Massey	H	1.71																	
076	Land south of Redrose Lane, north of Orchard Piece, Blackmore	H	1.69																	
283B	Land to the east of Warley Street	H	1.66																	
030B	Land at Bayleys Mead, off Hanging Hill Lane, Hutton	H	1.57																	
251	Land at Elm Farm, Spriggs Lane, Blackmore	H	1.56																	
230	Bowmer (Waste Disposal), Magpie Lane, Little Warley	H	1.55																	
186	Land at Crescent Drive, Brentwood	H	1.54																	
156B	Greenacres Riding Stables & land opposite, Beads Hall Lane, Pilgrims Hatch	H	1.52																	
074	Land at Church Road, Kelvedon Hatch	H	1.49																	
057B	Meadowside, Swallows Cross Road, Mountnessing	H	1.47																	
167	Land adjacent Hill Cottage, Warley Road, and Mill House, Mascalls Lane, Warley	H	1.45																	
217	Eagle Field, Kelvedon Hatch	H	1.44																	
079A	Land adj. to Ingatestone by-pass (part bounded by Roman Road, south of flyover)	H	1.39																	
257	Warley Auto Salvage, Warley Street, Great Warley	H	1.36																	
235	Land to the north of Alexander Lane, Shenfield	H	1.36																	
197	Land to rear of 31-40 Nags Head Lane, Brentwood	H	1.34																	
008A	Woodlands School, Rayleigh Road, Hutton	H	1.32																	
033	Land to the south of Lodge Close, east of Hutton	H	1.31																	
280	Straight Mile Nursery, Ongar Road	H	1.29																	
117B	Ford Warley - Northern Site	H	1.28																	
073	Land adjacent to Mountnessing Primary School	H	1.23																	

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079B	Land adjacent to Ingatestone by-pass (part bounded by Roman Road)	H	1.22																	
285	Land rear of Grange Close, Ingrave	H	1.21																	
010	Sow & Grow Nursery, Ongar Road, Pilgrims Hatch	H	1.2																	
281C	Land north of Pilgrims Hatch	H	1.17																	
288A	Land to the north west of Roman Road, Ingatestone	H	1.17																	
241	Land to the rear of Hillcrest Nursery, off Thorndon Approach, Ingrave	H	1.17																	
210	11-12 Church Road, Kelvedon Hatch, Brentwood, Essex	H	1.16																	
223B	Land Adjacent to iChitralt, Wyatts Green Road, Swallows Cross Mountnessing	H	1.11																	
269	Hartswood Hospital, Eagle Way, Warley	H	1.11																	
250	Post Field, Redrose Lane, Blackmore	H	1.11																	
002	Brentwood railway station car park	H	1.07																	
319	The Hurst, Church Lane, Doddinghurst	H	1.07																	
244	Land between Billericay Road and Heron Court, Herongate	H	1.03																	
070	Land adjacent to St. Margaret's Church, Doddinghurst	H	1																	
305	Little Corston, Thoby Lane, Mountnessing	H	0.94																	
067A	Salmonds Farm, Salmonds Grove, Ingrave	H	0.94																	
185	Land at Rectory Chase, Doddinghurst	H	0.94																	
224	Hermes, Brook Lane, Doddinghurst	H	0.91																	
209	Land to South of Blackmore Road, Doddinghurst	H	0.87																	
194	Brizes Corner Field, Blackmore Road, Kelvedon Hatch	H	0.87																	
284	Land adjacent 7 Hanging Hill Lane, Hutton	H	0.87																	
320	41 Shenfield Road, Shenfield	H	0.86																	

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300	Land to the South East of Hall Wood, Shenfield	H	0.84			■		■	■	■							■	■	■	■
246	Wrightsbridge Farm, Weald Road, South Weald	H	0.83	■		■	■			■					■	■		■	■	■
307	Clanmere, North Drive, Hutton	H	0.82				■			■							■	■	■	■
001B	St Georges Court Highwood Close	H	0.81			■		■	■		■					■	■	■	■	■
072	Land adjacent to Whitelands, Wyatts Green	H	0.81						■	■							■	■	■	■
108	Old Pump Works, Great Warley Street	H	0.79		■	■				■					■			■	■	■
145	Land at Doddinghurst Road adjacent Brickhouse Wood, Pilgrims Hatch	H	0.79			■		■		■							■	■	■	■
221	Crown Corner Country Store, Ongar Road, Kelvedon Hatch	H	0.77		■	■				■							■	■	■	■
036	Land opposite Button Common, Brentwood Road, Herongate	H	0.76		■	■			■	■	■		■		■		■	■	■	■
058A	Hall Lane Farm, Little Warley	H	0.76		■	■			■	■						■	■	■	■	■
019	Land at the Rectory, Church Lane, Doddinghurst	H	0.74		■	■		■		■				■			■	■	■	■
151	Academy Place, Brook Street/Spital Lane, Brentwood	H	0.74			■	■			■				■			■	■	■	■
146	Land adjacent Hillcrest Nursery, Herongate/Ingrave	H	0.74		■				■	■	■		■		■		■	■	■	■
148	Land at Moat Farm, 48 Crow Green Road, Pilgrims Hatch	H	0.73							■							■	■	■	■
168	Land at Searchlight Farm, School Road, Kelvedon Hatch	H	0.73		■	■		■		■							■	■	■	■
140	Land at Birley Grange, Hall Lane, Shenfield	H	0.72			■		■	■					■			■	■	■	■
095A	The Water Meadows, Mountnessing	H	0.7				■		■	■					■		■	■	■	■
024A	Sawyers Hall Farm, Sawyers Hall Lane/Doddinghurst Road, Brentwood	H	0.67							■						■		■	■	■
240	Land north of White House, Ongar Road, Kelvedon Hatch	H	0.65		■	■		■	■	■							■	■	■	■
265	Clementine Farm, Murthering Lane	H	0.64		■	■				■				■			■	■	■	■
149	Land at Thriftwood Scout Campsite adjoining Beech Ave, Cherry Ave & Knights Way	H	0.63		■	■		■	■	■							■	■	■	■
011C	Land to the North of Ongar Road, Pilgrims Hatch	H	0.63			■				■				■			■	■	■	■

Site	Name	Use	Ha.	Flood risk	SSSI	Local Wildlife Site	Local Nature Reserve	Ancient woodland	Woodland	Green Belt	Conservation area	Scheduled Monument	Registered Park/Garden	Listed building	Special landscape area	AQMA	Agricultural land	GP	Primary school	Secondary school
035A	Land at Spital Lane, Brentwood	H	0.63	Red		Yellow	Green	Yellow	Yellow	Yellow						Yellow	Yellow	Red	Yellow	Yellow
130	Hunter Avenue Car Park, Shenfield	H	0.62				Green												Green	Green
247	Land north of Rayleigh Road, Adjacent North Drive, Hutton	H	0.62				Green			Yellow							Yellow	Red	Red	Red
026	Land at Hove Close, off Hanging Hill Lane, Hutton	H	0.61			Yellow	Green	Yellow	Yellow	Yellow								Red	Red	Green
178	Land at Priests Lane (east) adjacent Bishops Walk, Brentwood	H	0.61		Yellow	Yellow		Yellow								Yellow		Yellow	Green	Green
216	Applegrove, Swallow Cross Road, Mountnessing	H	0.58							Yellow							Yellow	Red	Red	Red
276	Oak Hurst, Chelmsford Road, Shenfield	H	0.55				Green		Yellow								Yellow	Red	Yellow	Green
215	7 Church Road, Kelvedon, Hatch, Brentwood, Essex. CM14 5TJ	H	0.54		Red	Yellow		Yellow							Yellow		Yellow	Red	Green	Red
075A	Swedish Field, Stocks Lane, Kelvedon Hatch	H	0.54		Red					Yellow							Yellow	Red	Yellow	Red
099	Victoria Court, Victoria Road, Brentwood	H	0.5		Yellow											Yellow		Yellow	Green	Green
016A	Woodlands School, Warley Street, Great Warley	H	0.49		Yellow	Red	Green	Yellow		Yellow					Yellow		Yellow	Red	Red	Red
239	Land to the rear of 109 Roman Road, Mountnessing	H	0.49				Green			Yellow					Yellow		Yellow	Red	Green	Yellow
207	Land to North of Blackmore Road, Stondon Massey	H	0.48		Yellow					Yellow							Yellow	Red	Red	Red
001A	Land north of Highwood Close, Brentwood	H	0.47			Yellow		Yellow	Yellow	Yellow						Red		Green	Yellow	Yellow
225	The Nutshell, Stock Lane, Ingatestone	H	0.46							Yellow	Yellow				Yellow	Yellow		Green	Yellow	Green
103B	Land to east and west of North Drive, Hutton	H	0.44				Green			Yellow							Yellow	Red	Red	Red
205	Land to East of Nine Ashes Road, Nine Ashes Road, Stondon Massey	H	0.44		Yellow					Yellow				Yellow			Yellow	Red	Red	Red
223A	Land Adjacent to "Chitral", Wyatts Green Road, Swallows Cross, Brentwood	H	0.44							Yellow							Yellow	Red	Red	Red
147	Land at Joy Fook restaurant, adjacent Bentley Golf Club, Ongar Road	H	0.43		Yellow					Yellow							Yellow	Red	Yellow	Red
082	Land fronting Warley Street, near Great Warley	H	0.42		Yellow	Red		Yellow		Yellow					Yellow		Yellow	Red	Red	Red
278	75 Peartree Lane, Doddinghurt	H	0.42			Yellow				Yellow							Yellow	Red	Yellow	Red
191	Pettits, Frog Street, Kelvedon Hatch, Brentwood	H	0.4		Yellow	Yellow				Yellow							Yellow	Red	Yellow	Red

Site	Name	Use	Ha.	Flood risk	SSSI	Local Wildlife Site	Local Nature Reserve	Ancient woodland	Woodland	Green Belt	Conservation area	Scheduled Monument	Registered Park/Garden	Listed building	Special landscape area	AQMA	Agricultural land	GP	Primary school	Secondary school
271	River Road Allotments	H	0.4																	
029	Three Oaks Meadow, Hanging Hill Lane, Hutton	H	0.4																	
105	Land between 339 and 361 Roman Road, Mountnessing (north of No. 361)	H	0.39																	
292B	Suffolk House Yard, Ashwells Road, Pilgrims Hatch	H	0.39																	
066	Greenways, School Road, Kelvedon Hatch	H	0.38																	
157	4 Nags Head Lane, Brentwood	H	0.38																	
057A	Meadowside, Swallows Cross Road, Mountnessing	H	0.36																	
184	Former Saxton 4x4 garage, Rayleigh Road	H	0.36																	
234	Keys Hall Shopping Parade, Eagle Way	H	0.36																	
009	Woodlands, School Road, Kelvedon Hatch	H	0.34																	
227	144 Crow Green Road, Pirlgrims Hatch	H	0.34																	
027	Land adjacent to Carmel, Mascalls Lane, Warley	H	0.34																	
193	Land on the north side of Church Lane, Warley Street	H	0.33																	
040	Chatham Way/Crown Street Car Park, Brentwood	H	0.33																	
085B	Land adjacent to Tipps Cross Community Hall, Blackmore Road, Tipps Cross	H	0.33																	
294	Chestnut Field, Backmore Road, Hook End	H	0.33																	
097	Harewood Road bungalows, Pilgrims Hatch	H	0.32																	
004	Land rear of The Bull Public House, Brook Street, Brentwood	H	0.31																	
165	Keys Hall, Eagle Way, Brentwood	H	0.31																	
322	17 South Weald Road, Brentwood	H	0.3																	
103D	Land to east and west of North Drive, Hutton	H	0.29																	
226	Manor House, Haygreen Lane, Blackmore	H	0.29																	

Site	Name	Use	Ha.	Flood risk	SSSI	Local Wildlife Site	Local Nature Reserve	Ancient woodland	Woodland	Green Belt	Conservation area	Scheduled Monument	Registered Park/Garden	Listed building	Special landscape area	AQMA	Agricultural land	GP	Primary school	Secondary school
014	The Gables, Essex Way, Warley	H	0.28		Yellow	Yellow		Yellow										Yellow	Green	Yellow
133	Maple Cross Garages, Hutton, Brentwood	H	0.28		Red	Yellow		Yellow										Red	Yellow	Green
035B	Land at Spital Lane, Brentwood	H	0.28	Red			Green			Yellow						Yellow		Red	Yellow	Yellow
213	Land Adjoining Crescent Cottage, Nines Ashes Road, Stondon Massey	H	0.27		Yellow	Yellow												Red	Red	Red
039	Westbury Road Car Park, Westbury Road, Brentwood	H	0.27		Yellow						Yellow			Yellow				Green	Yellow	Green
056A	Land at Hayden and Ardslia, Wyatts Green Road, Wyatts Green	H	0.26			Yellow			Yellow	Yellow							Yellow	Red	Yellow	Red
098	Ingleton House, Stock Lane, Ingatestone	H	0.26								Yellow					Yellow		Green	Yellow	Green
068	Land off Penny Pots Barn, Ongar Road, Stondon Massey	H	0.24		Yellow					Yellow								Yellow	Red	Red
011	Land rear of 10-20 Orchard Lane, Pilgrims Hatch	H	0.24			Yellow				Yellow				Red			Yellow	Red	Yellow	Yellow
311	The Eagle and Child Public House, Chelmsford Road, Shenfield	H	0.24			Yellow								Yellow				Green	Green	Green
176	Land at former Bentley Zoo, Hulleys Lane, Brentwood	H	0.23							Yellow				Yellow			Yellow	Red	Yellow	Red
293	Pondfield Yard, Ashwells Road, Pilgrims Hatch	H	0.22							Yellow							Yellow	Red	Yellow	Red
041	Land at Hunter House, Western Road, Brentwood	H	0.21		Yellow						Yellow			Yellow				Green	Yellow	Green
326	Land adjacent 41 St.Nicholas Grove, Ingrave	H	0.21		Yellow					Yellow	Yellow		Yellow		Yellow		Yellow	Red	Green	Yellow
292A	Suffolk House Yard, Ashwells Road, Pilgrims Hatch	H	0.2							Yellow							Yellow	Red	Yellow	Red
208	Land at the West of Ongar Road, Stondon Massey, Brentwood	H	0.2		Yellow					Yellow							Yellow	Yellow	Red	Red
154	Land off the Chase, Brentwood	H	0.19		Red						Yellow					Yellow		Yellow	Yellow	Green
053A	Land rear of 146-148 Hatch Road, Pilgrims Hatch	H	0.18			Yellow				Yellow						Yellow		Red	Green	Yellow
080	Land adjoining 'The Surgery' Outings Lane, Doddinghurst	H	0.18		Yellow	Yellow		Yellow		Yellow				Yellow			Yellow	Green	Yellow	Red
063	Land adjacent to Gayland, Thorndon Approach, Herongate	H	0.17		Yellow					Yellow	Yellow		Yellow		Yellow		Yellow	Red	Green	Red
094	Land between 375 and 361 Roman Road, Mountnessing (south of No. 361)	H	0.16				Green			Yellow					Yellow		Yellow	Red	Green	Yellow
249	Land adjoining Lodge Cottages, Ingatestone Road, Blackmore	H	0.16	Red		Yellow			Yellow	Yellow	Red						Yellow	Red	Green	Red

Site	Name	Use	Ha.	Flood risk	SSSI	Local Wildlife Site	Local Nature Reserve	Ancient woodland	Woodland	Green Belt	Conservation area	Scheduled Monument	Registered Park/Garden	Listed building	Special landscape area	AQMA	Agricultural land	GP	Primary school	Secondary school
129	Friars Avenue Car park Shenfield	H	0.15																	
163	Old Mill Site, Hay Green Lane, Wyatts Green	H	0.15																	
252	Land adjacent to Meadvale, Chelmsford Road, Blackmore	H	0.15																	
006	Land adjacent Adult Education Centre, Rayleigh Road, Hutton	H	0.14																	
131	Land at Brookfield Close, Hutton	H	0.14																	
059	Rear of 83-93 Park Road, Brentwood	H	0.13																	
050	Land between 31-45 Goodwood Avenue, Hutton	H	0.11																	
091	Land at end of Greenshaw, Brentwood	H	0.11																	
093	Land at Fielding Way, Hutton (rear of Rayleigh Road shopping parade)	H	0.11																	
132B	Land at Albany Road, Pilgrims Hatch	H	0.11																	
134	Gloucester Road Garages, Pilgrims Hatch	H	0.11																	
049	Land between 12-13 Magdalen Gardens, Hutton	H	0.1																	
062	Land adjacent to 110 Priests Lane, Shenfield	H	0.1																	
222	Jasmine Cottage, 141 Billericay Road, Herongate	H	0.1																	
007	Land between Tendring Court and Tillingham Bold, Woodland Avenue, Hutton	H	0.09																	
047	Hutton Parish Hall, Rayleigh Road, Hutton	H	0.08																	
139	Land rear of The Spinney, School Road, Kelvedon Hatch	H	0.08																	
181	Green Keepers Cottage, Thorndon Gate, Ingrave	H	0.08																	
256	Land adjacent Chappington House, Magpie Lane, Little Warley	H	0.08																	
060	Land adjacent and rear of 207-217 Crescent Road, Brentwood	H	0.08																	
055	Rear of garage and adjacent to 126 Brentwood Road, Ingrave	H	0.07																	
132A	Land at Albany Road, Pilgrims Hatch	H	0.07																	

Site	Name	Use	Ha.	Flood risk	SSSI	Local Wildlife Site	Local Nature Reserve	Ancient woodland	Woodland	Green Belt	Conservation area	Scheduled Monument	Registered Park/Garden	Listed building	Special landscape area	AQMA	Agricultural land	GP	Primary school	Secondary school
135	Land at Hutton Drive, behind Tower House, Hutton, Brentwood	H	0.07			Yellow	Green											Yellow	Green	Green
012	Garage courts adjacent 49 Lavender Avenue, Pilgrims Hatch	H	0.06			Yellow				Yellow						Yellow		Red	Green	Yellow
092	Land at Kelvedon Green, Kelvedon Hatch	H	0.06		Red	Yellow		Yellow										Red	Green	Red
136	Land at Church Crescent, Mountnessing	H	0.06				Green											Red	Green	Red
137A	Land at Broomwood Gardens, Pilgrims Hatch, Brentwood	H	0.06			Yellow		Yellow										Yellow	Green	Yellow
052	Land rear of Little Jericho, Church Street, Blackmore	H	0.05	Red		Yellow			Yellow		Red			Yellow				Red	Green	Red
275	Land north of Coxtie Green Road	H	0.05			Yellow				Yellow								Red	Green	Red
054	Garages adjacent 25 Kings George's Road, Pilgrims Hatch	H	0.04			Yellow		Yellow										Yellow	Green	Yellow
061	18 Westbury Drive, Brentwood	H	0.04		Yellow						Yellow							Yellow	Red	Green
103A	The Old Barn, Woodside, North Drive, Hutton	H	0.04				Green			Yellow								Red	Red	Red
086	Land at Sandringham Road, Pilgrims Hatch	H	0.03			Yellow										Yellow		Yellow	Green	Yellow
096	Hutton Village Dental Practice, 217 Rayleigh Road, Hutton	H	0.03				Green							Yellow				Red	Green	Yellow
137B	Land at Broomwood Gardens, Pilgrims Hatch, Brentwood	H	0.03			Yellow		Yellow										Yellow	Green	Yellow
233	Rear of Meadow View, Green Lane, Pilgrims Hatch	H	0.02			Yellow												Yellow	Yellow	Yellow
103C	Land to east and west of North Drive, Hutton	H	0.01				Green			Yellow								Red	Red	Red
200	Dunton Hills Garden Village	MU	256.6	Yellow	Red	Red		Red	Yellow					Red				Yellow	Green	Yellow
037D	Land West of Thorndon Avenue, West Horndon	MU	64.71	Yellow	Red	Red		Red	Yellow	Yellow								Yellow	Green	Red
231	Land to the north of the A127	MU	64.59	Yellow	Red	Red		Red	Yellow				Red		Yellow			Red	Red	Red
089	Brentwood Centre and land	MU	20.01			Yellow		Yellow	Yellow									Yellow	Yellow	Yellow
175C	Land at M25 J28, Brook Street, Brentwood (inc. buildings), and surrounding land	MU	15.53	Yellow			Green		Yellow							Red		Red	Red	Red
175B	Land at M25, J28, Brook Street, Brentwood (inc. buildings), and surrounding land	MU	13.69			Yellow	Green	Yellow		Yellow				Yellow		Red		Red	Yellow	Yellow
150	Land East of A128, south of A127	MU	12.16		Yellow			Yellow		Yellow								Red	Red	Red

Site	Name	Use	Ha.	Flood risk	SSSI	Local Wildlife Site	Local Nature Reserve	Ancient woodland	Woodland	Green Belt	Conservation area	Scheduled Monument	Registered Park/Garden	Listed building	Special landscape area	AQMA	Agricultural land	GP	Primary school	Secondary school
037E	Land West of Thorndon Avenue, West Horndon	MU	12.02		Yellow	Red				Yellow	Yellow				Yellow		Yellow	Red	Red	Red
021	Horndon Industrial Estate, Station Road, West Horndon	MU	10		Yellow					Yellow							Yellow	Green	Green	Red
020	West Horndon Industrial Estate, Childerditch Lane, West Horndon	MU	6.45		Yellow					Yellow							Yellow	Red	Red	Red
158	Land North of A1023 Chelmsford Road, Shenfield	MU	4.45			Yellow	Green	Yellow						Yellow			Yellow	Red	Yellow	Green
321	McColl's House, Ashwells Road, Brentwood	MU	2.62			Yellow			Yellow	Yellow							Yellow	Red	Green	Red
100	Baytree Centre, Brentwood	MU	1.34		Yellow						Red	Red		Red		Yellow		Green	Yellow	Green
102	William Hunter Way car park, Brentwood	MU	1.2		Yellow						Yellow	Red					Yellow	Green	Yellow	Green
180	Land at Brook Street & Wigley Bush Lane, Brentwood (Vauxhall garage)	MU	1.08	Yellow		Yellow	Green	Yellow	Yellow	Yellow				Yellow			Yellow	Red	Yellow	Yellow
003	Wates Way Industrial Estate, Ongar Road, Brentwood	MU	0.99		Yellow						Yellow					Red		Green	Green	Green
144	East of A128 towards Timmermans Garden Centre and Dunton Golf	MU	0.86	Yellow	Yellow	Yellow		Yellow		Yellow							Yellow	Red	Red	Red
152	Land East of Horndon Industrial Estate	MU	0.8		Yellow												Yellow	Green	Green	Red
017	Telephone Exchange, Ongar Road, Brentwood	MU	0.53		Yellow						Red			Yellow		Red		Green	Green	Green
173	BP Garage & McDonald's Restaurant, A1023 Chelmsford Road (A12 J12)	MU	0.23			Yellow	Green	Yellow		Yellow							Yellow	Red	Yellow	Yellow
232	Multi-storey car park, Coptfold Road, Brentwood	MU	0.22		Yellow						Yellow					Yellow		Green	Yellow	Green
258	Hutton Service Station, Rayleigh Road, Hutton	MU	0.13				Green											Green	Green	Green
259	91-105 Hutton Road, Shenfield	MU	0.13															Green	Yellow	Green

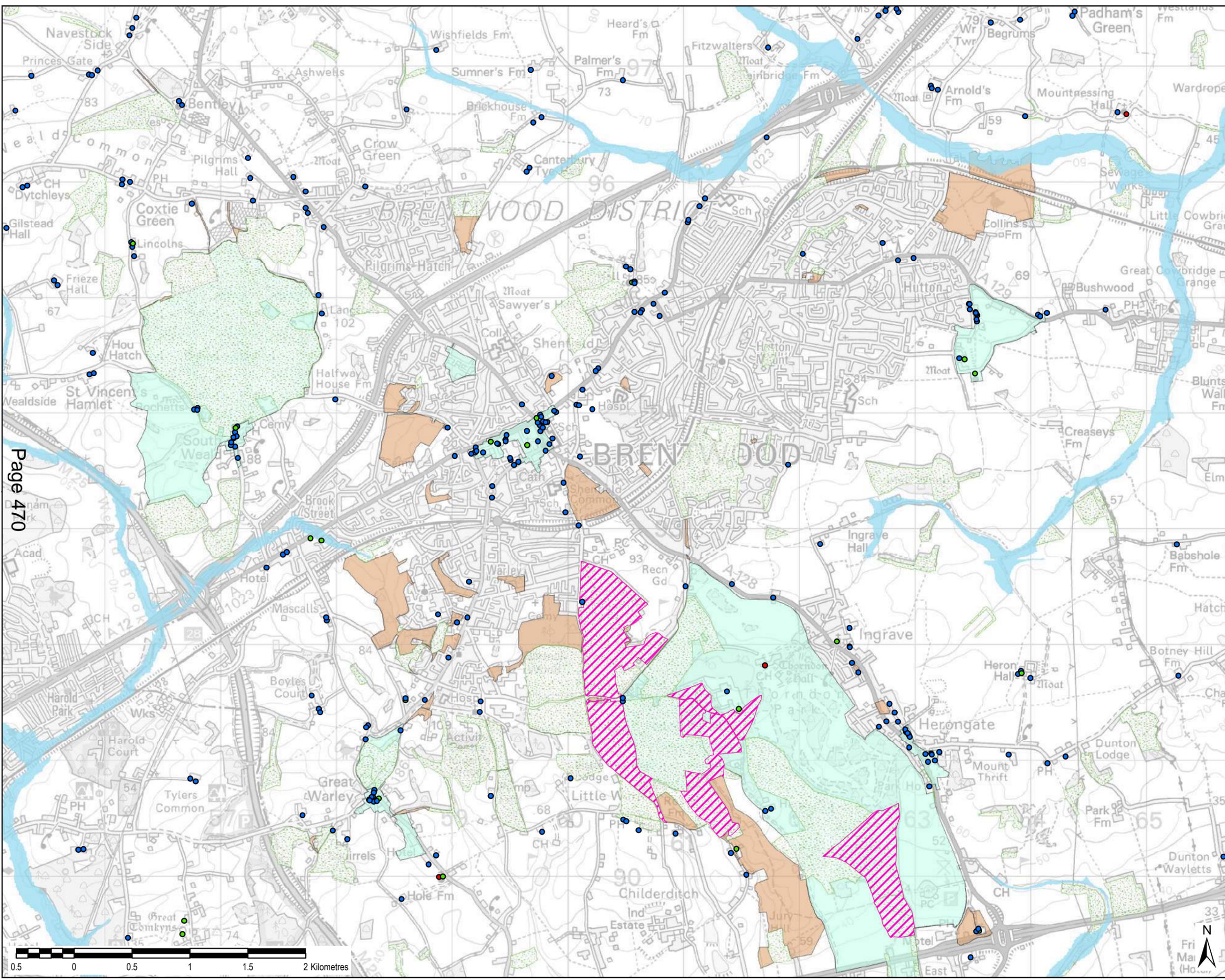
APPENDIX IV - BRENTWOOD/SHENFIELD OMISSION SITES

Section 5.5 explains that there is an initial shortlist of c.29 omission sites (i.e. sites that were not an allocation at the January 2018 Preferred Allocations stage) around the edge of the Brentwood Main Urban Area that might feasibly feature within the reasonable spatial strategy alternatives.

The aim of this appendix is to consider each of the shortlisted sites in turn, with a view to identifying a small number to take forward into a final shortlist for further analysis. The analysis is undertaken in the knowledge that the final shortlist need not be lengthy, given no reasonably foreseeable scenario (i.e. reasonable spatial strategy option) involving allocation of more than a small handful of omission sites.

Table A considers shortlisted omission sites are in turn, according to the broad area around the Brentwood Main Urban Area within which they are located. Some of the broad areas do not contain any shortlisted omission sites (but may contain omission sites that are not in the shortlist of 29).

Figure A sets the scene by showing key constraints surrounding the Brentwood Main Urban Area.



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- LEGEND**
- Listed Buildings
 - Grade I
 - Grade II
 - Grade II*
 - ▨ SSSI
 - Conservation Area
 - Flood Zone 2
 - Informal Natural Open Space
 - Local Wildlife Site

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Drawing Title **BRENTWOOD/SHENFIELD URBAN AREA CONSTRAINTS**

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Table A: Analysis of shortlisted Brentwood/Shenfield omission sites

Area	Commentary on the area and shortlisted omission sites	Progress to final shortlist (Table 5.2)?
North of S'field	A large area of land is bounded by the railway line to the east, and the A1023 to the west; plus there is a parcel of land to the north of the A1023, bounded by the A12. There are relatively few designated constraints, although considerations include a spur of Arnolds Wood LWS, and proximity to the railway and main roads. This land parcel comprises a large Preferred Allocations (itself comprising three land parcels).	-
	Land to the east of the railway is more constrained, notably by LWS woodland patches and the floodplain of the River Wid; and this land does not link well to the existing urban edge to the south, given the railway and woodland.	-
NE of Hutton	Hutton Country Park comprises the land south of the railway line (to Billericay) / east of Hutton Industrial Estate. This 36 ha site has been owned and managed as a Local Nature Reserve by the Borough Council since 1997.	-
	To the south of the Country Park is a series of fields (four small, one large), which stretch as far south as the A129 Rayleigh Road. These fields comprise two shortlisted omission sites - Collins Farm, Goodwoods Ave (10.2ha) and East of Goodwood Avenue (9.5ha). These adjacent sites would together expand Hutton along the A129 towards Havering's Grove and Billericay, and the lack of defensible Green Belt boundaries (i.e. the need to rely upon hedgerows) potentially gives rise to a risk of 'sprawl'. The sites are more strongly bounded to the north (the Country Park) and south (Hutton Village Conservation Area), although both features are also constraints to growth (in particular the conservation area). This area is also distant from Shenfield Station (c.2km), with Brentwood town centre a further c.1.5km, although primary schools are nearby.	No
East of Hutton	Hutton Village Conservation Area (CA) comprises the land to the south of the A129, stretching as far south as Hutton Hall and All Saints Church. HELAA sites comprise the areas of open land.	-
	To the west of the CA, north of Hall Lane, is an area of formal sports pitches, home to Hutton CC and Hutton FC.	-
	To the south of Hall Green Lane is a large arable field that is the western extent of a very extensive shortlisted omission site - East of Running Waters (c.400ha). This is such a large site that it is difficult to comment, without further information on development concepts. Focusing on the possibility of a modest scheme directly south of Hall Green Lane, constraints include the open landscape and the adjacent conservation area.	No
	To the west of the large arable field discussed above are the grounds of St. Martins Secondary School.	-
	To the south, the land adjacent to the urban edge is a complex patchwork of small fields (etc.) with limited obvious constraint, although there is a high density of mature trees in this area. There are two shortlisted omission sites - Bayleys Mead, off Hanging Hill Lane, (2.4ha) and South of Sylvia Avenue, Hutton (7.4ha). The former site (to the north) would appear to be relatively well contained in the landscape, in that there is development to the north and west, a lane / farm track to the south and a narrow woodland belt to the east; however, there is significant mature vegetation on site. The latter site (to the south) is less well contained in the landscape, and is constrained by a listed building at its western extent. Both sites are beyond easy walking distance of Brentwood or Shenfield centres, nor are there any primary schools nearby (although St. Martins Secondary School is in close proximity).	No

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Area	Commentary on the area and shortlisted omission sites	Progress to final shortlist (Table 5.2)?
	The final stretch of Shenfield’s urban edge, stretching as far south as the A128 Ingrave Road is abutted by four more expansive open fields, which have been divided into two shortlisted omission sites - both called ‘Land East of Running Waters’ (85 ha in total) - one abutting the urban edge and the other comprising the remaining area of land, stretching almost to Ingrave. There is currently quite a ‘hard’ edge to the urban area along this stretch, in the form of Running Waters and Hanging Hill Lane, and seemingly very few landscape features to bound a modest housing scheme. A larger scheme would risk coalescence with Ingrave, and give rise to heritage concerns.	No
S / SE of B’wood	The sector of land between the A128 and B186 is heavily constrained by Thorndon Park CA and Registered Park/Garden, and extensive areas of ancient woodland designated as either nationally important (SSSI) or locally important (LWS). The only area with fewer onsite constraints is the area of sports pitches, allotments and large private gardens at the northern edge of the sector (within 1km of Brentwood town centre).	-
Warley	There are extensive woodlands to the east of Warley, which link to the woodlands of Thorndon Country Park; however, much of the woodland is undesignated. On eastern edge of Warley are several smaller HELAA sites, some of which are discounted for reasons including current use as a recreation ground. The largest opportunity is at the southern edge of Warley, where three adjacent brownfield sites are Preferred Allocations. At the southern and western edge of Warley are two small sites that are discounted by the HELAA; and then there are two smaller HELAA sites which are closely associated with the urban area (but are in fact currently designated as Green Belt). These two sites are Preferred Allocations. To the west of Warley (between Warley and Brook Street) is a large discounted HELAA site, partly comprising Warley Country Park, known as Land to the east of Mascalls Lane. This is sloping land and quite heavily wooded, although the woodland is mostly undesignated.	-
Brook Street	At the very western extent of the urban area is Brook Street, which extends along the A1023 in the direction of the M25 junction. Land to the north (bounded by the A12) and to the south (bounded by the railway line) is considered through the HELAA, with one Preferred Allocation and one shortlisted omission site - M25 J28, Brook Street and surrounding land (19.6ha). There are limited strategic constraints in this area, although proximity to the A12 and M25 are important considerations, as is the matter of maintaining a Green Belt gap to LB Havering. The site is also distant from Brentwood town centre (c.2km) and the nearest primary school is beyond 1km distant.	No
West of B’wood	There is quite a large area of open land that stretches as far west as the A12. The eastern part, which begins only c.200m west of Brentwood town centre, is a shortlisted omission site known as ‘St. Faiths’ (15.6ha); whilst the western part is a Preferred Allocation. The St. Faiths site is a proposed LWS, and is identified as an informal open space by the Sport, Leisure and Open Space Assessment (2016); however, its close proximity to Brentwood town centre means, and relatively good Green Belt containment, means that it warrants further consideration.	Yes
Pilgrims Hatch	To the west/south west, the parcel of land between the A12, A128 and Sandpit Lane mostly comprises a large shortlisted omission site - Land off Ongar Road (53ha). This is higher land, and there is an onsite constraint in the form of a small LWS woodland, plus the western edge is constrained by the adjacent Weald Park Conservation Area / Registered Park and Garden and a Scheduled Monument; however, the scale of the site indicates potential to deliver new community infrastructure, and development of the whole site would make use of an entire Green Belt parcel that has been assessed by the Green Belt Study Part 2 (2018) as contributing to Green Belt purposes to a ‘moderate’ extent (only),	Yes
	The northern edge of Pilgrims Hatch is a patchwork of smaller fields and paddocks, with several shortlisted omission sites - North of Ongar Road (2.7ha); Land off Crow Green Lane (2.8ha); Land rear of 146-148 Hatch Road (3.2ha); Greenacres Riding Stables & land opposite, Beads Hall Lane (6.16ha). There are limited strategic constraints, although one of the sites seemingly has extensive mature vegetation. Concerns relate to lack of defensible Green Belt boundaries, piecemeal growth of Pilgrim’s Hatch, and distance to Brentwood town centre (c.2km).	No

Area	Commentary on the area and shortlisted omission sites	Progress to final shortlist (Table 5.2)?
	<p>East of Pilgrims Hatch there are two shortlisted omission sites either side of Doddinghurst Road. To the west of the road is an area seemingly used for recreation, associated with Bishops Hall Community Centre (4.8ha); whilst to the east are the extensive grounds (20ha) of the Brentwood Centre (leisure centre). The fact that this is Council owned land, and there might feasibly be the potential for housing development to fund upgrades to the existing community infrastructure, means that this area warrants further consideration.</p>	Yes
North of B'wood and S'field	<p>This is a large 'green wedge' comprising the land between the northern edge of Brentwood and the A12. This is the area of land that has been considered at past plan-making / SA stages as the location for a potential 'North Brentwood' strategic development.</p> <p>The land is mostly in agricultural use, although there are a number of wooded areas. The agricultural fields vary in size considerably, as do the nature of field boundaries. There is quite a low density of public footpaths, but nonetheless the likelihood of significant green infrastructure value. The eastern sector is most constrained, given an ancient woodland LWS, and also the cluster of listed buildings, and a church, which represents the location of the historic village of Shenfield.</p> <p>At the very eastern extent, to the east of Hall Lane, are two shortlisted omission sites, both known as 'East of Hall Lane' and comprising 25.6ha of land in total. No detailed scheme has been submitted, and the sites are associated with uncertain access arrangements (and would give rise to traffic concerns more generally).</p>	No
	<p>To the west of Hall Lane, more directly associated with the existing urban edge, are two further shortlisted omission sites - Land North West of Shenfield access via Hall Lane (6.5ha) and Land North West of Shenfield, access via Hallwood Crescent (10.7ha). These sites are associated with a range of constraints, but warrant further consideration given proximity to Brentwood and Shenfield centres.</p>	Yes
	<p>The final shortlisted omission site is at the very northwestern extent of this area - Sawyers Hall Farm, Sawyers Hall Lane/Doddinghurst Road, Brentwood (19.6ha). A detailed scheme is being actively promoted, which includes some potential for upgrades to community infrastructure.</p>	Yes

APPENDIX V - SPATIAL STRATEGY ALTERNATIVES APPRAISAL

Introduction

As explained within ‘Part 1’ above, a focus of work has been on the development and appraisal of spatial strategy alternatives, with a view to informing determination of the preferred strategy. Chapter 6 presents summary appraisal findings, whilst the aim of this appendix is to present detailed appraisal findings.

The reasonable spatial strategy alternatives are as follows -

				Opt 1	Opt 2	Opt 3	Opt 4	Opt 5	Opt 6	Opt 7
Completion				363	363	363	363	363	363	363
Commitments				900	900	900	900	900	900	900
Windfall				420	420	420	420	420	420	420
Allocations	Constants	B'wood / S'field	Urban brownfield	1,152	1,152	1,152	1,152	1,152	1,152	1,152
			Urban greenfield	95	95	95	95	95	95	95
			Green Belt	1440	1440	1440	1440	1440	1440	1440
		West Horndon	Urban brownfield	580	580	580	580	580	580	580
			Villages	Ingatestone/M'nessing GB	218	218	218	218	218	218
		Northern Village GB		133	133	133	133	133	133	133
	Variables	B'wood / S'field	Sawyers Hall Farm		450		450	450		450
			St. Faiths		750		750	750		750
			West of Ongar Road		800		800	800		800
		A127	West Horndon East	600			600			600
			West Horndon West	900				900	900	900
			Dunton Hills Garden Village			2500			2500	
	Total				6801	7301	7801	7901	8201	8701
Total p.a.				400	429	459	465	482	512	518
% over LHN				14%	23%	31%	33%	38%	46%	48%

Appraisal methodology

For each of the options, the assessment identifies / evaluates ‘likely significant effects’ on the baseline, drawing on the sustainability topics/objectives identified through scoping (see Table 3.1) as a methodological framework.⁷⁹

Green is used to indicate significant positive effects, whilst **red** is used to indicate significant negative effects. Every effort is made to predict effects accurately; however, this is inherently challenging given the high level nature of the policy approaches under consideration. The ability to predict effects accurately is also limited by understanding of the baseline (now and in the future under a ‘no plan’ scenario). In light of this, there is a need to make considerable assumptions regarding how scenarios will be implemented ‘on the ground’ and what the effect on particular receptors will be.⁸⁰ Where there is a need to rely on assumptions in order to reach a conclusion on a likely effect, this is made explicit in the appraisal text.

⁷⁹ N.B. The framework has been modified slightly for the purposes of appraisal, as per the approach taken previously. Specifically, the ‘Climate change’ topic has been modified slightly to ensure a focus on ‘Climate change mitigation’, recognising that climate change adaptation is a cross-cutting issue that is best discussed under other topic headings (with flood risk issues being most appropriately discussed under the ‘Water’ heading). Also, ‘Economic growth’ and ‘Employment and skills’ are discussed under a single heading.

⁸⁰ Considerable assumptions are made regarding infrastructure delivery, i.e. assumptions are made regarding the infrastructure (of all types) that will come forward in the future alongside (and to some extent funded through) development.

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

Finally, it is important to note that effects are predicted taking into account the criteria presented within Regulations (Schedules 1 and 2). For example, account is taken of the duration, frequency and reversibility of effects. Cumulative effects are also considered (i.e. the effects of the plan in combination with other planned or on-going activity).

Appraisal findings

Appraisal findings are presented below within 12 separate tables (each table dealing with a specific sustainability topic) with a final table drawing conclusions. Within each table the performance of alternatives is categorised in terms of ‘significant effects (using red / green) and also ranked in order of preference. Also, ‘ = ’ is used to denote instances of all alternatives performing on a par.

Sustainability Topic: <u>Air quality</u>							
	Opt 1	Opt 2	Opt 3	Opt 4	Opt 5	Opt 6	Opt 7
	WH East WH West	B'wood/S'field	DHGV	B'wood/S'field WH East	B'wood/S'field WH West	DHGV WH West	B'wood/S'field WH East WH West
Rank	1	4	2	5	5	3	6
Significant effects?	No	Yes	No	Yes	Yes	No	Yes
Discussion	<p>Options focusing growth at Brentwood perform poorly given existing traffic congestion and designated Air Quality Management Areas (AQMA) along the A12 and within Brentwood town centre. There is seemingly limited potential to address issues through road infrastructure upgrades. The likelihood is that development traffic seeking to reach the A12 or M25 would worsen traffic congestion and air quality along the A1023, including at the A128 junction.</p> <p>There would appear to be limited potential for growth along the A127 corridor to impact on an AQMA, other than within London (where the majority of boroughs are covered by a blanket AQMA). There are arguments to suggest that West Horndon is the preferable location from a perspective of minimising traffic, with knock-on positive implications for air quality, including because a train station would be within easy walking distance. However, there may also be significant opportunities at DHGV - around minimising the need to travel, and supporting low carbon means of travel - including on the basis that the scheme has Garden Village status.⁸¹ There would be good potential to access destinations by walking, cycling or public transport,⁸¹ and the site has good access to the strategic road network in this area. There is, however, a risk of traffic from the site impacting on Basildon town centre, or other sensitive junctions in Basildon, in combination with other planned growth locations around the town.</p> <p>In conclusion, Options 1 and 3 perform notably well, as traffic through AQMA in Brentwood would be minimised. Option 6 performs less well, recognising that growth along the A127 would increase traffic in Brentwood town centre. Other options perform relatively poorly, and it is appropriate to ‘flag’ the potential for significant negative effects, given the potential for increased traffic through the AQMA (also taking into account the preferred allocations that are a constant across the alternatives).</p>						

⁸¹ DHGV residents would have access to a ‘Category 2’ local centre on site (to include ‘schools alongside retail and health facilities’); an improved West Horndon village centre (set to become category 2); a new local centre delivered as part of the proposed West Basildon Urban Extension (to include a GP surgery and with land reserved for the possible future delivery of a secondary school); an improved Laindon Town Centre c.4-5km to the east; and Brentwood Town Centre, via a new bus route.

Sustainability Topic: <u>Biodiversity</u>							
	Opt 1	Opt 2	Opt 3	Opt 4	Opt 5	Opt 6	Opt 7
	WH East WH West	B'wood/S'field	DHGV	B'wood/S'field WH East	B'wood/S'field WH West	DHGV WH West	B'wood/S'field WH East WH West
Rank	3	4	★1	6	5	2	7
Significant effects?	No	Yes	No	Yes	Yes	No	Yes
Discussion	<p>The A127 corridor is sensitive given proximity to the woodlands of Thorndon Park to the north, with small 'fingers' of ancient woodland stretching south of the A127, into West Horndon East. Another consideration is the importance of the landscape in respect of maintaining ecological connectivity between Thorndon Living Landscape (as identified by the Wildlife Trusts) and the Langdon Hills and/or the Bulphan Fen Living Landscapes to the south. In this respect, it is DHGV that is most constrained, although there is a clear opportunity to leave areas within the site undeveloped as green corridors (including land in the vicinity of Eastlands Spring, which links to habitat patches/landscapes to the north and south). It is noted that Essex Wildlife Trust commented (in response to Growth Options, 2015) that:</p> <p><i>“Strategic options to the west of West Horndon would have the least harmful impact on important wildlife habitats. We would consider these options to be preferable. Strategic options to the east of West Horndon are unacceptable as they would adversely impact on priority ancient woodlands and wood pasture and parkland habitats which function as necessary linkage between Thorndon and Langdon.”</i></p> <p>The January 2018 Interim SA Report discussed Brentwood North as a relatively unconstrained potential growth location; however, two of the three sites now assumed to deliver higher growth at Brentwood are significantly constrained by the presence of on-site habitats identified as being of local importance. Specifically -</p> <ul style="list-style-type: none"> • West of Ongar Road - contains an ancient woodland patch designated as a LWS, and the site is adjacent to the extensive LWS that covers Weald Country Park. The site also comprises the eastern extent of the Havering and Brentwood Ridge Living Landscape, as defined by the Wildlife Trusts. • St. Faiths site - is mostly a proposed LWS (specifically that part which is not an existing employment site). The Brentwood Local Wildlife Site Review (2012) states: <i>“The Site represents a significant block of unintensively managed, reasonably species-rich grassland with good public access over much of it. The matrix of such grasslands with thick, old hedgerows is fast becoming a rare sight in the modern landscape.”</i>⁸² <p>In conclusion, Option 3 performs notably well, as DHGV is considered to be relatively unconstrained in biodiversity terms, with work having been completed to establish how to deliver biodiversity net gain through delivery of onsite green infrastructure. Option 6 also performs well, as West Horndon West is also a relatively unconstrained site, albeit the potential for in-combination impacts on the sensitive landscapes to the north would be a consideration.⁸³ Options involving the additional package of sites at Brentwood perform poorly, and are predicted to result in significant negative effects, given unavoidable impacts to locally designated sites (see NPPF para 174). Loss of a LWS at St. Faiths is a particular concern, noting that the site promoters have proposed a relatively high density scheme (36 dph).</p> <p>N.B. a separate process of Habitats Regulations Assessment (HRA) has been completed.</p>						

⁸² <http://www.brentwood.gov.uk/pdf/17072013120644u.pdf>

⁸³ A number of the 'units' that comprise the Thorndon Park SSSI are judged to be in 'unfavourable' condition; however, Natural England's condition report does not make reference to recreational pressures, instead primarily highlighting issues around management (e.g. the need to maintain open glades, sparse tree cover and structural diversity) and invasive species. See <https://designatedsites.naturalengland.org.uk/ReportUnitCondition.aspx?SiteCode=S1004248&ReportTitle=THORNDON%20PARK>

Sustainability Topic: <u>Climate change mitigation</u>							
	Opt 1	Opt 2	Opt 3	Opt 4	Opt 5	Opt 6	Opt 7
	WH East WH West	B'wood/S'field	DHGV	B'wood/S'field WH East	B'wood/S'field WH West	DHGV WH West	B'wood/S'field WH East WH West
Rank	★1	4	★1	4	3	★1	2
Significant effects?	No						
Discussion	<p>There is a need to consider the performance of the alternatives both in terms of minimising per capita greenhouse gas (GHG) emissions from transport, and also per capita GHG emissions from the built environment.</p> <p>With regards to transport emissions, it is difficult to differentiate the alternatives. Within the A127 corridor there is the potential to achieve new homes and jobs in close proximity, deliver a new bus route linking the A127 corridor to Brentwood, enhance walking/cycling infrastructure (including to train stations) and also increase the offer at West Horndon and Laindon local centres; however, equally, new homes at Brentwood would be within walking/cycling distance of Brentwood town centre and the Crossrail station (albeit two of the three sites assumed to deliver higher growth are beyond 1km of Brentwood town centre).</p> <p>With regards to built environment emissions, there is essentially a need to support large scale schemes where ambitious low carbon measures can be implemented, including decentralised low/renewable heat and/or power generation schemes (e.g. a biomass fuelled Combined Heat and Power system). This is a factor in support of DHGV and/or strategic growth at West Horndon (mindful that there is the potential to masterplan growth at West Horndon as a whole, noting proposed redevelopment of West Horndon Industrial Estate, and the possibility of growth to the south of the village, in Thurrock).</p> <p>In conclusion, options involving a concentration of growth along the A127 corridor perform best; however, it is difficult to differentiate between the option of strategic growth at West Horndon versus strategic growth at Dunton Hills Garden Village. Residents at West Horndon might have lower per capita CO₂ emissions from transport, given the rail station; however, the very large scale nature of the growth opportunity at DHGV (up to 4,500 homes in the long term, i.e. beyond the plan period), aligned with funding made available from Government, should mean excellent potential to deliver low carbon infrastructure.</p> <p>It is not possible to conclude that any option would result in significant effects, either positive or negative, recognising that climate change mitigation is a global issue (i.e. local actions have only limited significance).</p>						

Sustainability Topic: <u>Community and well-being</u>							
	Opt 1	Opt 2	Opt 3	Opt 4	Opt 5	Opt 6	Opt 7
	WH East WH West	B'wood/S'field	DHGV	B'wood/S'field WH East	B'wood/S'field WH West	DHGV WH West	B'wood/S'field WH East WH West
Rank	2	5	★1	5	4	2	3
Significant effects?	No						
Discussion	<p>A primary consideration is access to community infrastructure (with capacity), both for new and existing residents, which in the Brentwood context is understood to mean supporting a large scale new scheme, which can deliver new strategic community infrastructure.⁸⁴</p> <p>Maximising growth within the A127 corridor would increase the likelihood of delivering new strategic community infrastructure, to include a new secondary school, whilst it is not clear that an equivalent opportunity presents itself at Brentwood. One of the Brentwood sites - West of Ongar Road - is of a scale sufficient to deliver a primary school, and the site promoters have stated that land could be made available for a primary school; however, there is little or no likelihood of delivering a new secondary school. The best outcome would likely be that the three sites could pool contributions in order to fully fund delivery of a new primary school, and potentially also support delivery of upgrades to the Brentwood Centre (which is nearby).</p> <p>N.B. other sites would also deliver some less significant upgrades to community infrastructure. Perhaps of greatest note is the potential for growth to support improvements West Horndon village centre and train station. Also, one of the Brentwood Sites (Sawyers Farm) would deliver a relocated animal sanctuary with café / visitor centre; a new school pick-up/drop-off zone to address an existing problem; and 'potentially' small scale new shops or a village hall.</p> <p>Another consideration is the direct impacts to existing residents that would result from growth, e.g. in respect of amenity and traffic congestion, including during construction. In this respect growth at Brentwood potentially leads to greatest concerns, given traffic congestion that exists currently, the likelihood of the situation worsening in the future (including as a result preferred allocations that are a constant across the alternatives) and the possibility of 'rat-running' through villages. However, there are also concerns regarding impacts to local residents resulting from growth along the A127 (noting potential Basildon growth locations).</p> <p>Finally, there is a need consider the fact that DHGV has Garden Village status, which leads to something of an opportunity. Government's 2017 Housing White Paper is strongly supportive of Garden Villages because of the potential to deliver community benefits over-and-above what can be achieved through urban extensions, with statements including: "[The Government will] strengthen local representation and accountability, and increase opportunities for [garden] communities to benefit from land value capture."</p> <p>In conclusion, options involving a concentration of growth along the A127 corridor perform best, with DHGV preferable to West Horndon noting uncertainty regarding the potential to deliver and masterplan sites at West Horndon in combination.</p> <p>Significant positive effects are not predicted, even for options likely to deliver a secondary school, and even after having taken account of preferred allocations that are a constant across the alternatives. It is not clear that there would be delivery of new strategic community infrastructure to address any existing issues/opportunities (i.e. new infrastructure would primarily 'consume the smoke' of the new development).</p>						

⁸⁴ The following comment made by NHS England, through the Growth Options consultation (2015) is of considerable note: "Delivery of essential infrastructure via developer funded projects would be the most effective scenario for meeting the intended growth... Of the five options advocated [through] Sustainability Appraisal, it is suggested that a single large site necessitating the need for new facilities specific to that development would be more sustainable than dispersing growth in many settlements. Numerous smaller extensions could have impacts on existing infrastructure left unmitigated, or the level of contribution falling short of the requirements..."

Sustainability Topic: <u>Cultural heritage</u>							
	Opt 1	Opt 2	Opt 3	Opt 4	Opt 5	Opt 6	Opt 7
	WH East WH West	B'wood/S'field	DHGV	B'wood/S'field WH East	B'wood/S'field WH West	DHGV WH West	B'wood/S'field WH East WH West
Rank	2	2	★1	3	2	★1	3
Significant effects?	No						
Discussion	<p>The A127 corridor is relatively unconstrained from a historic environment perspective, with a primary consideration being adjacent Thorndon Hall Registered Park and Garden (Grade II* listed) and Thorndon Park Conservation Area, which primarily constrains West Horndon East (indeed, the designated land intersects the potential development area, to a small extent).</p> <p>A single Grade II listed building does fall within centre of the DHGV site, which will inevitably be impacted through loss of its rural setting; however, means to mitigate impact are being explored, e.g. through sensitive integration of the listed building into a local centre (such that residents would experience and appreciate the listed building), or through integration with green infrastructure stretching to the south east (potentially enabling a degree of connectivity with the two listed buildings at the edge of the site, and heritage assets beyond including the Plotlands Museum, which forms part of the Langdon Centre, run by Essex WT).</p> <p>There are wide ranging heritage constraints around the Brentwood Main Urban Area; however, only one of the package of sites assumed to deliver higher growth is notably constrained, namely West of Ongar Road, which is highly constrained at its western extent by a Scheduled Monument, two listed buildings and the eastern extent of the Weald Conservation Area / Registered Park and Garden. There would also be a need to consider the possibility of increased traffic congestion impacting on the Brentwood Conservation Area.</p> <p>In conclusion, West Horndon West is considered to be the least constrained location, followed by DHGV, which leads to a conclusion that Options 3 and 6 perform best. Options 4 and 7 perform poorly as there would be a risk of impacts to two conservation areas (one of which is also a registered park/garden) and several listed buildings; however, it is not possible to conclude significant negative effects - even after having considered the impacts that will result from preferred allocations that are a constant across the alternatives - given potential to avoid/mitigate effects through careful masterplanning and design (e.g. West Horndon East site promoters have submitted a scheme that seeks to respond to the constraints). Greatest concern potentially relates to the setting of the Weald Conservation Area / Registered Park and Garden and associated specific assets (listed buildings and a SAM).</p>						

Sustainability Topic: <u>Economy and employment</u>							
	Opt 1	Opt 2	Opt 3	Opt 4	Opt 5	Opt 6	Opt 7
	WH East WH West	B'wood/S'field	DHGV	B'wood/S'field WH East	B'wood/S'field WH West	DHGV WH West	B'wood/S'field WH East WH West
Rank	2	3	★1	3	2	★1	3
Significant effects?	No						
Discussion	<p>There is a need to support an approach to housing growth that in turn supports delivery of significant new employment land along one or both corridors, both of which are of potentially of regional importance, given proximity to London. N.B. to be clear, under all options there is an assumption that a strategic cluster of employment land will be supported along the A127 corridor, with the focus being on a large 'Brentwood Enterprise Park' scheme at M25 J29.</p> <p>The main opportunity to support additional delivery of employment land would be at DHGV; and the effect could well be to strengthen the A127 corridor employment cluster, also recognising that the A127 corridor in Basildon Borough is seen as an 'Enterprise Corridor'.</p> <p>The representation received from the West Horndon West site promoter also suggests some potential to deliver new employment land on-site; however, there is no clear commitment, and so it is assumed that any provision would be small-scale.</p> <p>With regards to the cluster of Brentwood sites, there would be merit to delivering new housing in close proximity to Brentwood town centre and Crossrail Station; however, none of the schemes would deliver new employment land. Indeed, there is a concern that delivery of the St. Faiths site could impact on the functioning of the BT Centre, which is an existing employment site, with the proposal being to develop half of the existing car park.</p> <p>In conclusion, Options 3 and 6 perform best, as they would deliver significant new employment land at DHGV. There is some reason to suggest that Option 6 performs best as there might also be some additional employment land delivered at West Horndon West; however, there could equally be increased concerns regarding traffic congestion impacting businesses along the A127 corridor.</p> <p>It is challenging to draw conclusions regarding effect significance. Past SA iterations have concluded the likelihood of significant positive effects resulting from a strategy that includes ac concentration of growth along the A127; however, latest understanding from the Transport Assessment serves to highlight serious concerns regarding traffic congestion at M25J29, and also at junctions along the A127. Taking a precautionary approach, significant positive effects are not predicted.</p>						

Sustainability Topic: <u>Flooding</u>							
	Opt 1	Opt 2	Opt 3	Opt 4	Opt 5	Opt 6	Opt 7
	WH East WH West	B'wood/S'field	DHGV	B'wood/S'field WH East	B'wood/S'field WH West	DHGV WH West	B'wood/S'field WH East WH West
Rank	=	=	=	=	=	=	=
Significant effects?	No						
Discussion	<p>It should be possible to avoid fluvial flood risk zones, and the worsening of flood risk offsite (through increased surface water run-off) under all options. An area of fluvial flood risk intersects the west of the Dunton Hills Garden Village site; however, given the extent of the site, it should be possible to leave this area, and a sufficient buffer, undeveloped.</p> <p>With regards to surface water flood risk, all of the sites in question (i.e. those that are a 'variable' across the alternatives) are affected to some extent, with West Horndon East seemingly most affected; however, there tends to be good potential to avoid or mitigate risk through masterplanning and delivery of Sustainable Drainage Systems (SuDS). The site promoter has submitted a scheme that seeks to respond to the constraints that exist.</p> <p>In conclusion, the alternatives perform on a par, and significant effects are not predicted (also having taken into account the preferred allocations that are a constant across the alternatives).</p>						

Sustainability Topic: <u>Housing</u>							
	Opt 1	Opt 2	Opt 3	Opt 4	Opt 5	Opt 6	Opt 7
	WH East WH West	B'wood/S'field	DHGV	B'wood/S'field WH East	B'wood/S'field WH West	DHGV WH West	B'wood/S'field WH East WH West
Rank	7	6	5	4	3	2	 1
Significant effects?	Yes						
Discussion	<p>All options would involve a land supply - i.e. completions, commitments, allocations, windfall - sufficient to <i>potentially</i> deliver well in excess of 5,950 homes over the plan period, which is the OAHN/LHN figure (350 dpa x 19). A degree of headroom is appropriate, given the risk that one or more sites might be subject to unanticipated delays to delivery, and given a need to ensure a smooth delivery trajectory over the plan period, or at least not avoid major dips in the trajectory that could lead to a situation whereby the Council experience difficulties in respect of demonstrating a five year housing land supply, or meeting the Housing Delivery Test.</p> <p>The amount of headroom, or 'buffer' would be lowest under Options 1 and 2, but the mix of sites involved (i.e. no reliance on DHGV, which is at greatest risk of delay, amongst the sites under consideration) leads to confidence regarding the robustness of the supply trajectory. There would be greatest risk under Option 1 (14% buffer, with reliance on growth at both East and West of West Horndon), but this buffer is considered sufficient. This degree of reliance on strategic schemes, aligned with a buffer of this scale, is in accordance with good practice.</p>						

The higher growth options, and specifically Options 4 to 7, perform best as the scale of headroom is potentially larger than that which is necessary to deliver the OAHN/LHN figure (after also having taken account of the mix of sites), such that the Council could potentially commit to a housing target/requirement in excess of OAHN/LHN. Such an approach is supported, from a ‘Housing’ perspective, given that the additional supply would (likely) go towards meeting the unmet needs likely to arise from elsewhere in South Essex, or (less likely) go towards meeting affordable housing needs arising from within Brentwood more fully.

Alternatively, higher growth options can be seen to perform well on the basis that understanding of OAHN/LHN might well increase (prior to submission of the plan, or during the course of the plan’s examination) - see discussion in Section 5.2.

In **conclusion**, all options would lead to significant positive effects, and it is possible rank the alternatives according to the scale of the buffer / quantum of homes provided for.

There are other factors besides housing quantum - e.g. the need to focus housing on the Brentwood/Shenfield area, as the sub-area with highest need; or the fact that DHGV would deliver significant additional housing beyond the plan period, thereby giving confidence regarding housing supply in the long term; or the potential for some sites to suited to delivering specialist accommodation (e.g. supported housing) and/or the full quota of affordable housing - however, these factors are judged to be of lesser significance.

Sustainability Topic: Landscape

	Opt 1	Opt 2	Opt 3	Opt 4	Opt 5	Opt 6	Opt 7
	WH East WH West	B'wood/S'field	DHGV	B'wood/S'field WH East	B'wood/S'field WH West	DHGV WH West	B'wood/S'field WH East WH West
Rank	 1	2	3	4	5	6	7
Significant effects?	Yes						

Discussion

There are no nationally important designated landscapes within the Borough; however, around 89% of the Borough is designated Green Belt, which is designated in order to perform a number of ‘purposes’, one of which is to maintain ‘openness’. There is limited published evidence to enable differentiation between sites, and in turn spatial strategy alternatives, although the following messages can be taken from Mid Essex Landscape Character Assessment (2006) and the Council’s assessment of Green Belt parcels -

- DHGV falls within the Horndon Fenland character area, which has “moderate sensitivity to change”, and is judged to contribute to Green Belt purposes to a “moderate to high” extent.
- West Horndon East and West fall within the Horndon Fenland character area, which has “moderate sensitivity to change”, and are judged to contribute to Green Belt purposes to a “moderate” extent.
- West of Ongar Road - falls at the eastern extent of the Weald Wooded Farmland character area, which has relatively high sensitivity to change”, and comprises a land parcel judged to contribute to Green Belt purposes to a “moderate to high” extent.
- St. Faiths - fall at the eastern extent of the Weald Wooded Farmland character area, which has relatively high sensitivity to change”, and comprises a land parcel judged to contribute to Green Belt purposes to a “low to moderate” extent (one of only four such land parcels in the Borough).
- Sawyers Farm - falls at the southern extent of the Doddinghurst Wooded Farmland character area, which has “relatively high sensitivity to change”, and falls within a wider land parcel judged to contribute to Green Belt purposes to a “high” extent.

Further site-specific considerations are as follows -

- DHGV - has led to concerns raised by both Basildon and Thurrock Councils. Thurrock Council stated, through their response to the January 2018 consultation: *“Thurrock Council suggests that the potential of larger scale developments such as the Dunton Hills Garden Village would have a much greater negative impact on the landscape than stated by Brentwood Council. The assessment of both landscape character areas and capacity for development can be undertaken for a range of scale and type. The Dunton Hills Garden Village concept would be considered a large scale urban development likely to have significant impact to neighbouring local character areas. The character assessments undertaken for Brentwood in the Mid Essex Character Assessment Area G3 South Essex Towns do not reflect the importance of the adjacent large landscape character area of fenland. This has been recognised by the Thames Chase Heritage Lottery Fund as a distinctive landscape character worth conservation and has been identified by Campaign for the Protection of Rural England as nationally significant area of tranquillity in the Metropolitan Green Belt. Dunton Hill Farm site is on a highly distinctive rise on a raised plateau between Laindon Hills and the Brentwoods Hills and separates the catchments of the Mardyke River to west and the River Crouch to the east. Basildon descends north-east from Langdon Hills to the River Crouch. The urban edges of Brentwood and Basildon are set back from the steeper slopes and screened with woodlands from views across the fenland. The settlements of Upminster and South Ockendon are identifiable in distant views to the east and south-east. There are built features within the open rural landscape which do not significantly impact the value of the area but may lower the quality or condition of the landscape in field by field character assessments. The impact to the wider fenland character is likely to be greater than the settlements of South Ockendon in the south west. It is highly likely from the finding of landscape capacity studies that any development greater than discreet infill plots would significantly harm the landscape character.*
- West Horndon - seemingly gives rise to relatively fewer concerns, from a landscape perspective. Whilst there are some extensive views across the site from A-roads, as a flat site there should be good potential for effective screening (which, of course, might not preclude significant visual impacts in the shorter term, ahead of vegetation maturing).
- Both DHGV and West Horndon - the strategic importance of the A127 corridor as a landscape gap between London and Basildon, and in particular the importance of the gap between West Horndon and Basildon, has been highlighted by stakeholders, including Thurrock Council and Basildon District Council.
- West of Ongar Road - is visible from locations along the existing Pilgrims Hatch settlement edge (although screening vegetation - i.e. trees and hedgerows - appears to be fairly strong), from Weald Road (which links Brentwood to the village of South Weald) and from along the length of Sandpit Lane, which is a narrow lane with a rural character. There might be views of the site from within Weald Country Park, although this is uncertain.
- St Faiths - is rising land, with views into and out of the higher part of the site (potentially stretching as far as South Weald / Weald Country Park), and there is a need to consider views from the existing Brentwood urban edge (Weald Road) and Honeypot Lane (set to be impacted by development of the adjacent Honeypot Lane site). Screening vegetation - i.e. trees and hedgerows - appears to be quite strong.
- Sawyers Farm - is a flat site that potentially gives rise to fewer concerns from a landscape perspective, with limited obvious receptors in the vicinity (e.g. no footpaths); however, from a Green Belt perspective there would be greater concerns regarding the ability to achieve a long-term defensible Green Belt boundary, i.e. the need to rely on soft boundaries (hedgerows / narrow ditches) gives rise to a risk of ‘sprawl’ into adjoining areas over time (in comparison, the West of Ongar Road could have stronger boundaries, and St. Faiths would have stronger boundaries on most sides (assuming development of Honeypot Lane), with just a small parcel of land (north of the cemetery) seemingly at risk from future sprawl).

In **conclusion**, Option 1 is judged to perform best as it would involve minimal housing growth, and it follows that Option 7 performs worst, as the highest growth option. Taking a precautionary approach, and in the absence of detailed evidence, it is appropriate to conclude that all alternatives would lead to significant negative effects. Brentwood Borough, as a whole, is sensitive from a landscape perspective.

Sustainability Topic: <u>Soils</u>							
	Opt 1	Opt 2	Opt 3	Opt 4	Opt 5	Opt 6	Opt 7
	WH East WH West	B'wood/S'field	DHGV	B'wood/S'field WH East	B'wood/S'field WH West	DHGV WH West	B'wood/S'field WH East WH West
Rank	=	=	=	=	=	=	=
Significant effects?	Yes						
Discussion	<p>There is a need to avoid loss of higher quality ('best and most versatile') agricultural land. In this respect, the great majority of undeveloped land in Brentwood is Grade 3 (good to moderate quality) in the Agricultural Land Classification, according to the nationally available 'Provisional Agricultural Land Quality' dataset. The data-set is of very low resolution, which means that it is difficult to apply it to the appraisal of individual sites; however, it is apparent that all of the sites currently under consideration - i.e. all that are a variable across the alternatives - are shown to be Grade 3 by the dataset.</p> <p>The other available dataset is known as the 'Post 1988' dataset. This dataset is an accurate reflection of agricultural land quality, on the basis that the methodology involves field surveys. However, the data-set is very patchy, with data only being available for a very small proportion of the Borough, and no data available for any of the sites under consideration here.</p> <p>In conclusion, the alternatives are judged to perform broadly on a par. In respect of effect significance, it is difficult to draw a conclusion, but on balance it is appropriate to conclude that all options would lead to significant negative effects, given the risk of significant loss of best and most versatile agricultural land.</p> <p>N.B. Another consideration relates to the sterilisation of known mineral resources, taking account of areas safeguarded by the Essex Minerals Plan 2014; however, none of the sites in question are constrained in this respect.</p>						

Sustainability Topic: <u>Waste</u>							
	Opt 1	Opt 2	Opt 3	Opt 4	Opt 5	Opt 6	Opt 7
	WH East WH West	B'wood/S'field	DHGV	B'wood/S'field WH East	B'wood/S'field WH West	DHGV WH West	B'wood/S'field WH East WH West
Rank	=	=	=	=	=	=	=
Significant effects?	No						
Discussion	<p>The broad spatial distribution of growth is not likely to have a bearing on waste management related objectives. It is assumed that there is sufficient capacity at waste management processing facilities in Essex to handle waste under any scenario. All new development, regardless of location and scale, would likely design-in some waste management facilities.</p>						

Sustainability Topic: <u>Water quality and water resources</u>							
	Opt 1	Opt 2	Opt 3	Opt 4	Opt 5	Opt 6	Opt 7
	WH East WH West	B'wood/S'field	DHGV	B'wood/S'field WH East	B'wood/S'field WH West	DHGV WH West	B'wood/S'field WH East WH West
Rank	=	=	=	=	=	=	=
Significant effects?	No						
Discussion	<p>Past appraisal iterations have highlighted wastewater capacity constraints in the north of the Borough, associated with Doddinghurst and Ingatestone waste water treatment works; however, this does not have a bearing on the appraisal.</p> <p>The Council's Water Cycle Study (2018) also highlights some issues along the A12 corridor, but is able to conclude: <i>"The WQA has indicated that there should be no significant deterioration in water quality in discharge waters due to housing growth. The main issue identified is operational capacity of the WwTW and ability to receive sewage flows. It has been recommended that both Brentwood and Ingatestone WwTWs review volumetric capacity to manage future Dry Weather Flow as a result of increased housing growth within their respective catchment areas. A diversion of flows to nearby WwTW could be considered or a combination of review of consent limits and water reduction measures."</i></p> <p>There are also localised surface water and foul water drainage constraints; however, again this does not have a bearing on the appraisal.</p> <p>In conclusion, the alternatives are judged to perform broadly on a par, and significant effects are not predicted. Options involving higher growth at Brentwood might potentially lead to WwTW capacity issues; however, this is uncertain.</p> <p>N.B. with regards to other 'water' issues, namely issues around the use of scarce potable water supplies and water quality within rivers and groundwater, there is no potential to differentiate the alternatives. In respect of potable water supply, it is not possible to conclude that lower growth in Brentwood is a preferable option, as this is a regional issue and Brentwood is not known to be any more constrained than neighbouring authorities. In respect of water quality, there are not known to be any strategic constraints - e.g. particular river systems that are sensitive or in need of improvement - and there is always good potential to address matters at the development management stage, e.g. through designing-in sustainable drainage systems (SuDS).</p>						

Summary appraisal of the reasonable spatial strategy alternatives (October 2018)

Topic	Rank of performance / categorisation of effects						
	Opt 1 WH East WH West	Opt 2 B'wood/S'field	Opt 3 DHGV	Opt 4 B'wood/S'field WH East	Opt 5 B'wood/S'field WH West	Opt 6 DHGV WH West	Opt 7 B'wood/S'field WH East WH West
Air quality	★1	4	2	5	5	3	6
Biodiversity	3	4	★1	6	5	2	7
Climate change	★1	4	★1	4	3	★1	2
Community & well-being	2	5	★1	5	4	2	3
Cultural heritage	2	2	★1	3	2	★1	3
Economy & employment	2	3	★1	3	2	★1	3
Flooding	=						
Housing	7	6	5	4	3	2	★1
Landscape	★1	2	3	4	5	6	7
Soils	=						
Water	=						

Conclusion

A headline conclusion is that a strategy involving one or more strategic allocations within the A127 corridor performs well, relative to the alternative of supporting higher growth at the Brentwood Main Urban Area (BMUA), in respect of a number of objectives. It does not automatically follow that a strategy involving higher growth at the BMUA is relatively unsustainable overall; however, it is a strong indication. The appraisal has highlighted very limited benefits to supporting higher growth at the BMUA, and some significant draw-backs (perhaps most notably in respect of air quality); however, the appraisal findings do reflect the merits of the particular package of sites selected / assumed to deliver higher growth. There will be alternative packages of sites that perform better in certain respects.

Focusing on the A127 corridor, a strategy involving DHGV (Option 3) is found to out-perform a strategy involving growth to the east and west of West Horndon (Option 1) other than in respect of -

- Landscape - this finding relates to the fact that Option 1 would involve lower growth overall, relative to Option 3, i.e. growth at DHGV would be on larger scale (in particular once account is taken for the potential for significant growth beyond the plan period). There are reasons to suggest that DHGV is generally a more sensitive location from landscape perspective (i.e. irrespective of development scale); however, this conclusion cannot be reached with any certainty.
- Air quality - West Horndon is judged to be the preferable location from a perspective of wishing to minimise car dependency / distance travelled by car, given the rail station, and in turn is judged to be the preferable location in respect of 'Air quality' (noting that growth along the A127 corridor can be expected to lead to increased traffic in the Brentwood town centre AQMA); however, there is some uncertainty in respect of this conclusion, given the potential to deliver significant upgrades to walking/cycling and public transport infrastructure (i.e. bus services) at DHGV, as well as to deliver employment and a local centre (to include a secondary school) on-site.

A final point to note is that the appraisal conclusions in respect 'Housing' reflects the overall quantum of homes provided for, rather than the spatial distribution (as per 'Landscape'). Higher growth options are judged to be preferable given: A) the need to provide for a 'buffer' over-and-above the established OAHN/LHN figure (350dpa) in order to ensure a robust housing supply trajectory (recognising the risk of unanticipated delays to deliver at one or more sites); and B) the risk that the OAHN/LHN figure could increase prior to plan submission, or during the plan's examination; and C) the risk (less likely) of the Brentwood Local Plan having to provide for unmet needs arising from elsewhere in South Essex.

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Brentwood Borough Council Draft Regulation 19 Local Plan (November 2019)

Habitats Regulations Assessment **DRAFT for elected Councillors**

Brentwood Borough Council

October 2018

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1. Introduction

Background to the Project

- 1.1 AECOM has been appointed by Brentwood Borough Council to assist the Council in undertaking a Habitats Regulations Assessment (HRA) of its revised Draft Regulation 19 Local Plan (November 2019) (hereafter referred to as the 'Plan'). The Plan sets out the Council's proposed strategy to meet economic and housing needs in the Borough up to 2033. The Plan sets out development management policies and infrastructure requirements. The objective of this assessment is to identify any aspects of the Plan that would cause an adverse effect on the integrity of Natura 2000 sites, otherwise known as European sites (Special Areas of Conservation (SACs), Special Protection Areas (SPAs), (as a matter of Government policy) Ramsar sites, and 'Potential' sites for any such designations, either in isolation or in combination with other plans and projects. Advice on appropriate policy mechanisms for delivering mitigation where such effects have been identified is also provided.
- 1.2 In January 2018, Habitats Regulations Assessment was undertaken of residential and employment site allocations for the Plan¹. This is not being revisited within this assessment.

Legislation

- 1.3 The need for Appropriate Assessment is set out within Article 6 of the EC Habitats Directive 1992, and transposed into British law by the Conservation of Habitats and Species Regulations 2017. The ultimate aim of the Directive is to "*maintain or restore, at favourable conservation status, natural habitats and species of wild fauna and flora of Community interest*" (Habitats Directive, Article 2(2)). This aim relates to habitats and species rather than the European sites themselves, although the sites have a significant role in delivering favourable conservation status.
- 1.4 The Habitats Directive applies the Precautionary Principle² to European sites. Plans and projects can only be permitted having ascertained that there will be no adverse effect on the integrity of the site(s) in question. Plans and projects with predicted adverse impacts on European sites may still be permitted if there are no alternatives to them and there are Imperative Reasons of Overriding Public Interest (IROPI) as to why they should go ahead. In such cases, compensation would be necessary to ensure the overall integrity of the site network.
- 1.5 In order to ascertain whether or not site integrity will be affected, an Appropriate Assessment should be undertaken of the plan or project in question:

¹ AECOM. (January 2018) Habitats Regulations Assessment of Brentwood District Council Draft Local Plan: Preferred Site Allocations Regulation 18 Consultation (January 2018). Brentwood District Council

² The Precautionary Principle, which is referenced in Article 191 of the Treaty on the Functioning of the European Union, has been defined by the United Nations Educational, Scientific and Cultural Organisation (UNESCO, 2005) as:

"When human activities may lead to morally unacceptable harm [to the environment] that is scientifically plausible but uncertain, actions shall be taken to avoid or diminish that harm. The judgement of plausibility should be grounded in scientific analysis".

Box 1: The legislative basis for Appropriate Assessment

Habitats Directive 1992

Article 6 (3) states that:

“Any plan or project not directly connected with or necessary to the management of the site but likely to have a significant effect thereon, either individually or in combination with other plans or projects, shall be subject to appropriate assessment of its implications for the site in view of the site's conservation objectives.”

Conservation of Habitats and Species Regulations 2017

The Regulations state that:

“A competent authority, before deciding to ... give any consent for a plan or project which is likely to have a significant effect on a European site ... shall make an appropriate assessment of the implications for the site in view of that site's conservation objectives... The authority shall agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the European site”.

- 1.6 Over time the phrase ‘Habitats Regulations Assessment’ has come into wide currency to describe the overall process set out in the Habitats Directive from screening through to Imperative Reasons of Overriding Public Interest (IROPI). This has arisen in order to distinguish the process from the individual stage described in the law as an ‘Appropriate Assessment’. Throughout this report we use the term Habitats Regulations Assessment for the overall process and restrict the use of Appropriate Assessment to the specific stage of that name.

Scope of the Project

- 1.7 There is no pre-defined guidance that dictates the physical scope of a HRA of a Local Plan document. Therefore, in considering the physical scope of the assessment we were guided primarily by the identified impact pathways rather than by arbitrary ‘zones’. Current guidance suggests that the following European sites be included in the scope of assessment:
- All sites within the Brentwood Borough boundary; and
 - Other sites shown to be linked to development within the Brentwood Borough boundary through a known ‘pathway’ (discussed below).
- 1.8 Briefly defined, pathways are routes by which a change in activity provided within a Local Plan document can lead to an effect upon an internationally designated site. DCLG guidance states that the HRA should be ‘*proportionate to the geographical scope of the [plan policy]*’ and that ‘*an AA need not be done in any more detail, or using more resources, than is useful for its purpose*’ (CLG, 2006, p.6)³. More recently, the Court of Appeal⁴ ruled that providing the Council (as competent authority) was duly satisfied that proposed mitigation could be ‘*achieved in practice*’ such that the proposed development would have no adverse effect, then this would suffice. This ruling has since been applied to a planning permission (rather than a Local Plan document)⁵. In this case the High Court ruled that for ‘*a multistage process, so long as there is sufficient information at any particular stage to enable the authority to be satisfied that the proposed mitigation can be achieved in practice it is not necessary for all matters concerning*

³ CLG. (2006) Planning for the Protection of European Sites, Consultation Paper.

⁴ No Adastral New Town Ltd (NANT) v Suffolk Coastal District Council Court of Appeal, 17th February 2015.

⁵ High Court case of R (Devon Wildlife Trust) v Teignbridge District Council, 28 July 2015.

mitigation to be fully resolved before a decision maker is able to conclude that a development will satisfy the requirements of the Habitats Regulations’.

- 1.9 No European sites lie within Brentwood Borough. However, the following sites are sufficiently close to the Borough and could be subject to impacts stemming from the Plan (distances from the Borough are in brackets):
- Epping Forest SAC (6km west of the borough, 9km west of the nearest small village (Navestock Heath) and 13km west of the nearest suburb (Pilgrims Hatch));
 - Thames Estuary and Marshes SPA and Ramsar site (8.3km south-east);
 - Essex Estuaries SAC (12.4km east);
 - Crouch and Roach Estuaries SPA and Ramsar site (12.4km east);
 - Benfleet and Southend Marshes SPA and Ramsar site (13.4km south-east); and
 - Blackwater Estuary SPA and Ramsar site (19.8km north-east).
- 1.10 Other European sites located along the Essex coast that were considered include the following sites (distances from the Borough are in brackets):
- Foulness Estuary SPA and Ramsar site (more than 27km);
 - Dengie SPA and Ramsar site (more than 35km);
 - Colne Estuary SPA and Ramsar site (more than 37km);
 - Stour and Orwell Estuary SPA and Ramsar site (more than 52km); and
 - Hamford Water SPA and Ramsar site (more than 57km).
- 1.11 Due to the considerable distances of the European sites listed in Paragraph 1.10, which are located well outside of the Borough’s boundary, it is not considered realistic for impact pathways linking to the Plan to exist alone or in combination with these sites. As such, these European sites are not discussed further in this report.
- 1.12 The European sites located along the Essex coast are hereafter referred to as the ‘Essex Coastal European sites’.
- 1.13 The reasons for the designation of the European sites considered in this report, together with current trends in habitat quality and pressures on these sites, are set out at Appendix A. The locations of the European sites considered in this report are illustrated in Appendix B, Figure B1.
- 1.14 In order to fully inform the screening process, a number of recent studies have been consulted to determine likely significant effects that could arise from the Plan. These include:
- Final Water Resources Management Plan 2014. Essex & Suffolk Water. October 2014;
 - Future development proposed (and, where available, HRAs) for Barking & Dagenham, Basildon, Castle Point, Chelmsford, East Hertfordshire District Epping Forest, Harlow, Havering, Maldon, Redbridge, Rochford, Southend-on-Sea, Thurrock, and Waltham Forest Districts;
 - Recreational activity, tourism and European site recreational catchment data has been used where this exists for individual European sites, although this is limited. In such circumstances where data does not exist then this

HRA has used appropriate proxy information from other European sites designated for similar features and in similar settings that has been agreed by Natural England; and,

- Multi Agency Geographic Information for the Countryside (MAGIC) and its links to SSSI citations and the JNCC website (www.magic.gov.uk).

This Report

- 1.15 Chapter 2 of this report explains the process by which the HRA has been carried out. Chapter 3 explores the relevant pathways of impact. Chapter 4 summarises the Likely Significant Effects test of Plan Policies to determine which present potential scope for impacts on European sites (specifically Epping Forest SAC and Essex Coastal European Sites). The Likely Significant Effects test itself is undertaken in Appendix C. Chapters 5 and 6 provide Appropriate Assessment in relation to the impact pathways that could not be 'screened out' in Appendix C, and include recommendations to ensure the Plan does not affect the integrity of any European sites. Key findings and recommendations are summarised in Chapter 7.

2. Methodology

Introduction

- 2.1 The HRA has been carried out in the continuing absence of formal central Government guidance, although general EC guidance on HRA does exist⁶. The DCLG released a consultation paper on the Appropriate Assessment of Plans in 2006⁷. As yet, no further formal guidance has emerged. However, Natural England has produced its own internal guidance⁸, as has the RSPB⁹. Both of these have been referred to in undertaking this HRA.
- 2.2 Figure 1 below outlines the stages of HRA according to current draft DCLG guidance. The stages are essentially iterative, being revisited as necessary in response to more detailed information, recommendations and any relevant changes to the plan until no significant adverse effects remain.

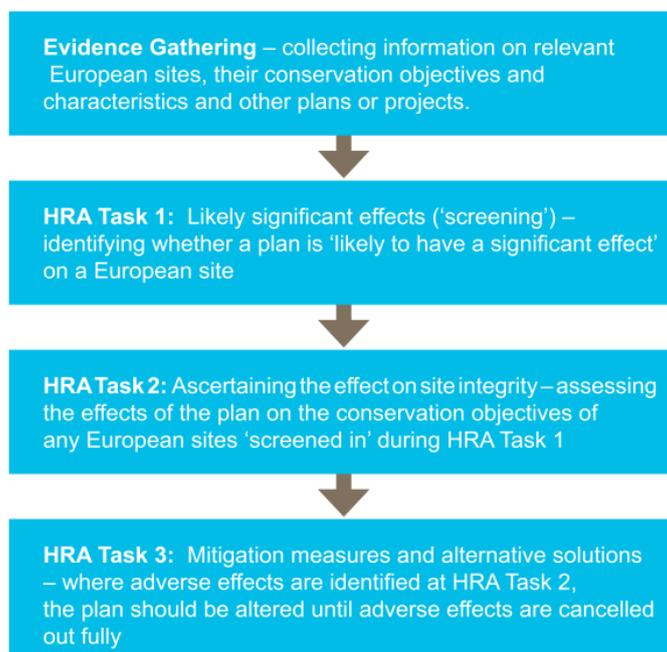


Figure 1: Four Stage Approach to Habitats Regulations Assessment (CLG, 2006)

HRA Task 1: Test of Likely Significant Effects

- 2.3 Following evidence gathering, the first stage of any Habitats Regulations Assessment is a Test of Likely Significant Effects (TOLSE). This is essentially a risk assessment to decide whether the full subsequent stage known as Appropriate Assessment is required. The essential question is:

“Is the Plan, either alone or in combination with other relevant projects and plans, likely to result in a significant effect upon European sites?”

- 2.4 The objective is to ‘screen out’ those plans and projects that can, without any detailed appraisal, be said to be unlikely to result in significant adverse effects upon European sites, usually because there is no mechanism for an adverse interaction with European sites.
- 2.5 In evaluating significance, AECOM have relied on our professional judgement as well as the results of previous stakeholder consultation regarding development impacts on the European sites considered within this assessment.

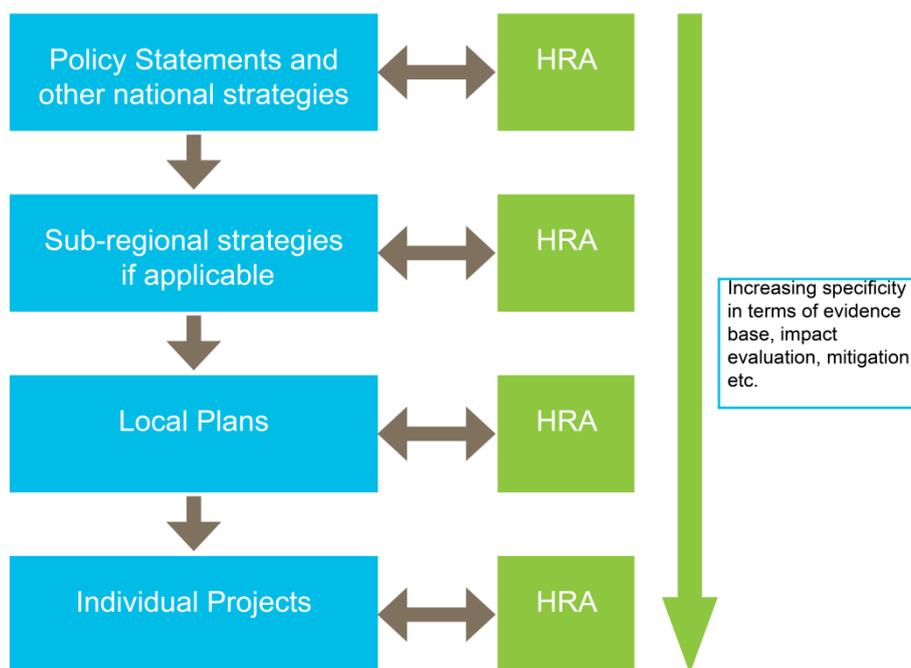
⁶ European Commission. (2001) *Assessment of plans and projects significantly affecting Natura 2000 Sites: Methodological Guidance on the Provisions of Article 6(3) and 6(4) of the Habitats Directive.*

⁷ CLG (2006) *Planning for the Protection of European Sites*, Consultation Paper.

⁸ http://www.ukmpas.org/pdf/practical_guidance/HRGN1.pdf

2.6 The level of detail in land use plans concerning developments that will be permitted under the plans is rarely sufficient to make a detailed quantification of adverse effects. It is therefore necessary to be cognisant of the fact that HRAs for plans can be tiered, with assessments being undertaken with increasing specificity at lower tiers. This is in line with the Department of Communities and Local Government guidance and Court rulings that the level of detail of the assessment, whilst meeting the relevant requirements of the Conservation Regulations, should be 'appropriate' to the level of plan or project that it addresses. This 'tiering' of assessment is summarised in Box 2.

Box 2: Tiering in HRA of Land Use Plans



2.7 On these occasions the advice of Advocate-General Kokott¹⁰ to the European Court of Justice is worth considering. She commented that: *'It would ...hardly be proper to require a greater level of detail in preceding plans [rather than planning applications] or the abolition of multi-stage planning and approval procedures so that the assessment of implications can be concentrated on one point in the procedure. Rather, adverse effects on areas of conservation must be assessed at every relevant stage of the procedure to the extent possible on the basis of the precision*

⁹ Dodd, A.M., Cleary, B.E., Dawkins, J.S., Byron, H.J., Palframan, L.J. & Williams, G.M. (2007) *The Appropriate Assessment of Spatial Plans in England: a guide to why, when and how to do it*. The RSPB, Sandy.

¹⁰ Opinion of Advocate General Kokott, 9th June 2005, Case C-6/04. Commission of the European Communities v United Kingdom of Great Britain and Northern Ireland, paragraph 49.

<http://curia.europa.eu/juris/document/document.jsf?docid=58359&doclang=EN>

of the plan. This assessment is to be updated with increasing specificity in subsequent stages of the procedure' [emphasis added].

HRA Task 2: Appropriate Assessment (AA)

- 2.8 Where it is determined that a conclusion of 'no likely significant effect' cannot be drawn, the analysis has proceeded to the next stage of HRA known as Appropriate Assessment. Case law has clarified that 'appropriate assessment' is not a technical term. In other words, there are no particular technical analyses, or level of technical analysis, that are classified by law as belonging to Appropriate Assessment.
- 2.9 A recent decision by the European Court of Justice¹¹ (ECJ) concludes that measures intended to avoid or reduce the harmful effects of a proposed project on a European site, but which are not an integral part of the project or plan, may no longer be taken into account by competent authorities at the likely significant effects stage of HRA, essentially meaning that the role of avoidance and measures should be discussed in the subsequent Appropriate Assessment stage instead of the TOLSE stage.

HRA Task 3: Avoidance & Mitigation

- 2.10 Where necessary, measures will be recommended for incorporation into the Plan in order to avoid or mitigate adverse effects on European sites. There is considerable precedent concerning the level of detail that a Local Plan document needs to contain regarding mitigation for recreational impacts on European sites. The implication of this precedent is that it is not necessary for all measures that will be deployed to be fully developed prior to adoption of the Local Plan, but the Local Plan must provide an adequate policy framework within which these measures can be delivered.
- 2.11 When evaluating significance, AECOM has relied on professional judgement as well as the results of previous stakeholder consultation regarding development impacts on the European sites considered within this assessment.
- 2.12 When discussing mitigation for a Local Plan document, one is concerned primarily with the policy framework to enable the delivery of such mitigation rather than the details of the mitigation measures themselves since the Local Plan document is a high-level policy document.

Principal Other Plans and Projects That May Act 'In Combination'

- 2.13 In practice, in combination assessment is of greatest relevance when the plan would otherwise be screened out because its individual contribution is inconsequential. For the purposes of this assessment, we have determined that, due to the nature of the identified impacts, the key other plans and projects relate to the additional housing and commercial/industrial development proposed for other relevant Essex, Hertfordshire and London authorities over the lifetime of the Plan (Table 1). These were selected if they related to bordering authorities or if the authority encompassed one of the European designated sites discussed (e.g. Southend-on-Sea, within which the Benfleet and Southend Marshes SPA and Ramsar site is located).

Table 1: Housing levels to be delivered across authorities surrounding Brentwood Borough

Local Authority	Total housing provided
Epping Forest	11,400 (to 2033) ¹²
Havering	17,550 (to 2031) ¹³
Barking and Dagenham	17,850 (to 2024/25) ¹⁴
Basildon	15,260 (to 2034) ¹⁵
Uttlesford	These three authorities with Epping Forest District are working together as part of an HMA. Where impacts in combination such as air quality impacts are considered, these assessments will be based in the level of development provided within the HMA.
East Hertfordshire	
Harlow	
Chelmsford	18,515 (to 2036) ¹⁶
Havering	17,550 (2016 - 2031) ¹⁷

Redbridge	16,845 (2015-2030) ¹⁸
Waltham Forest	10,320 (2012 - 2026) ¹⁹
Castle Point	No details on housing allocation provided; awaiting new local plan.
Southend-on-Sea	No details on housing allocation provided; awaiting new local plan.
Rochford	4,600 (to 2021) ²⁰
Maldon	4,650 (to 2029) ²¹
Thurrock	10,010 (to 2021) ²²
Waltham Forest	10,320 (to 2026) ²³

2.14 The Minerals and Waste Development Plans for Essex, London and Suffolk are also of some relevance, since these may contribute to increased vehicle movements on the road network within Brentwood Borough (and thereby contribute to air quality impacts). The Essex and Suffolk Local Transport Plans to 2031 will also be important in terms of encouraging sustainable transport. However, the major impact is likely to be that of housing and commercial development within the surrounding districts, as set out in Local Plans. These have therefore been the main focus of the examination of cumulative 'in combination' effects with regard to this HRA.

2.15 In relation to recreational activity, the Epping Forest Management Plan and visitor surveys have been consulted for their plans and projects that may affect European sites in combination with development in Epping Forest District.

¹¹ People Over Wind and Sweetman v Coillte Teoranta (C-323/17).

¹² <http://www.efdclocalplan.org/wp-content/uploads/2017/12/Submission-Version-Local-Plan.pdf> [accessed 24/10/2018]

¹³ https://www.havering.gov.uk/download/downloads/id/1567/proposed_submission_for_the_local_plan.pdf [accessed 24/10/2018]

¹⁴ <https://www.lbbd.gov.uk/wp-content/uploads/2014/10/Adopted-Core-Strategy.pdf> [accessed 24/10/2018]

¹⁵ <http://www.basildon.gov.uk/CHttpHandler.ashx?id=6599&p=0> [accessed 24/10/2018]

¹⁶ <https://www.chelmsford.gov.uk/planning-and-building-control/planning-policy-and-new-local-plan/new-local-plan/local-plan-examination/> [accessed 24/10/2018]

¹⁷ https://www.havering.gov.uk/download/downloads/id/1909/lbhlp1_-_proposed_submission_local_plan_2016-2031.pdf [accessed 24/10/2018]

¹⁸ https://www.redbridge.gov.uk/media/2268/final-web-pdf_redbridge-local-plan_reduced.pdf [accessed 24/10/2018]

¹⁹ <https://branding.walthamforest.gov.uk/Documents/adopted-core-strategy.pdf> [accessed 24/10/2018]

²⁰ https://www.rochford.gov.uk/sites/default/files/planningpolicy_cs_adoptedstrategy.pdf [accessed 24/10/2018]

²¹ http://www.maldon.gov.uk/download/downloads/id/14807/approved_maldon_district_local_development_plan_2014-2029.pdf [accessed 24/10/2018]

²² https://www.thurrock.gov.uk/sites/default/files/assets/documents/core_strategy_adopted_2011_amended_2015.pdf [accessed 24/10/2017]

²³ <https://static.walthamforest.gov.uk/sp/Documents/adopted-core-strategy.pdf> [accessed 24/10/2018]

3. Pathways of Impact

Introduction

3.1 In carrying out an HRA it is important to determine the various ways in which land use plans can impact on internationally designated sites by following the pathways along which development can be connected with internationally designated sites, in some cases many kilometres distant. Briefly defined, pathways are routes by which a change in activity associated with a plan document/development can lead to an effect upon an internationally designated site. Based in the findings of the Regulation 18 screening HRA, three main pathways have been identified that would be the focus of this analysis:

- Air quality issues relating to Epping Forest SAC.
- Recreational pressure on the Essex coastal European sites.
- Water quality relating to the Essex coastal European sites.

Recreational Pressure

3.2 Recreational use of an internationally designated site has the potential to:

- Cause damage through mechanical/ abrasive damage and nutrient enrichment;
- Cause disturbance to sensitive species, particularly ground-nesting birds and wintering wildfowl; and
- Prevent appropriate management or exacerbate existing management difficulties.

3.3 Different types of internationally designated sites are subject to different types of recreational pressures and have different vulnerabilities. Studies across a range of species have shown that the effects of recreation can be complex.

Mechanical/abrasive Damage and Nutrient Enrichment

3.4 Most types of terrestrial internationally designated site can be affected by trampling, which in turn causes soil compaction and erosion. Walkers with dogs contribute to pressure on sites through nutrient enrichment via dog fouling and also have potential to cause greater disturbance to fauna as dogs are less likely to keep to marked footpaths and move more erratically. Motorcycle scrambling and off-road vehicle use can cause serious erosion and disturbance to sensitive species.

3.5 There have been several papers published that empirically demonstrate that damage to vegetation in woodlands and other habitats can be caused by vehicles, walkers, horses and cyclists:

- Wilson & Seney (1994)²⁴ examined the degree of track erosion caused by hikers, motorcycles, horses and cyclists from 108 plots along tracks in the Gallatin National Forest, Montana. Although the results proved difficult to interpret, it was concluded that horses and hikers disturbed more sediment on wet tracks, and therefore caused more erosion, than motorcycles and bicycles.
- Cole (1995a, b)²⁵ conducted experimental off-track trampling in 18 closed forest, dwarf scrub and meadow and grassland communities (each tramped between 0 – 500 times) over five mountain regions in the US. Vegetation cover was assessed two weeks and one year after trampling, and an inverse relationship with trampling intensity was discovered, although this relationship was weaker after one year than two weeks, indicating some recovery of the vegetation. Differences in plant morphological characteristics were found to explain more variation in response between different vegetation types than soil and topographic factors. Low-growing, mat-forming grasses regained their cover best after two weeks and were considered most resistant to trampling, while tall forbs (non-woody vascular plants other than grasses, sedges, rushes and ferns) were considered

²⁴ Wilson, J.P. & Seney, J.P. (1994) Erosional impact of hikers, horses, motorcycles and off road bicycles on mountain trails in Montana. *Mountain Research and Development* 14:77-88.

²⁵ Cole, D.N. (1995a) Experimental trampling of vegetation. I. Relationship between trampling intensity and vegetation response. *Journal of Applied Ecology* 32: 203-214.

Cole, D.N. (1995b) Experimental trampling of vegetation. II. Predictors of resistance and resilience. *Journal of Applied Ecology* 32: 215-224.

least resistant. Cover of hemicryptophytes and geophytes (plants with buds below the soil surface) was heavily reduced after two weeks, but had recovered well after one year and as such these were considered most resilient to trampling. Chamaephytes (plants with buds above the soil surface) were least resilient to trampling. It was concluded that these would be the least tolerant of a regular cycle of disturbance.

- Cole (1995c)²⁶ conducted a follow-up study (in four vegetation types) in which shoe type (trainers or walking boots) and trampler weight were varied. Although immediate damage was greater with walking boots, there was no significant difference after one year. Heavier trampers caused a greater reduction in vegetation height than lighter trampers, but there was no difference in effect on cover.
- Cole & Spildie (1998)²⁷ experimentally compared the effects of off-track trampling by hiker and horse (at two intensities – 25 and 150 passes) in two woodland vegetation types (one with an erect forb understorey and one with a low shrub understorey). Horse traffic was found to cause the largest reduction in vegetation cover. The forb-dominated vegetation suffered greatest disturbance, but recovered rapidly. Higher trampling intensities caused more disturbance.

- 3.6 The total volume of dog faeces deposited on sites can be surprisingly large. For example, at Burnham Beeches National Nature Reserve over one year, Barnard (2003)²⁸ estimated the total amounts of urine and faeces from dogs to be 30,000 litres and 60 tonnes respectively. The specific impact on Epping Forest SAC has not been quantified from local studies; however, the fact that habitats for which the SAC is designated appear to already be subject to excessive nitrogen deposition suggests that any additional source of nutrient enrichment (including uncollected dog faeces) will make a cumulative contribution to overall enrichment. Any such contribution must then be considered within the context of other recreational sources of impact on sites.

Disturbance

- 3.7 Concern regarding the effects of disturbance on birds stems from the fact that they are expending energy unnecessarily and the time they spend responding to disturbance is time that is not spent feeding²⁹. Disturbance therefore risks increasing energetic output while reducing energetic input, which can adversely affect the 'condition' and ultimately the survival of the birds. In addition, displacement of birds from one feeding site to others can increase the pressure on the resources available within the remaining sites, as they have to sustain a greater number of birds³⁰.
- 3.8 The potential for disturbance may be lower in winter than in summer due to the reduction in recreational users. In addition, the consequences of disturbance at a population level may be reduced because birds are not breeding. However, winter activity can still cause disturbance, especially as birds are particularly vulnerable at this time of year due to food shortages, such that disturbance which results in abandonment of suitable feeding areas can have severe

²⁶ Cole, D.N. (1995c) Recreational trampling experiments: effects of trampler weight and shoe type. Research Note INT-RN-425. U.S. Forest Service, Intermountain Research Station, Utah.

²⁷ Cole, D.N. & Spildie, D.R. (1998) Hiker, horse and llama trampling effects on native vegetation in Montana, USA. *Journal of Environmental Management* 53: 61-71.

²⁸ Barnard, A. (2003) Getting the Facts - Dog Walking and Visitor Number Surveys at Burnham Beeches and their Implications for the Management Process. *Countryside Recreation*, 11, 16-19.

²⁹ Riddington, R., Hassall, M., Lane, S. J., Turner, P. A., & Walters, R. (1996) The impact of disturbance on the behaviour and energy budgets of Brent geese. *Bird Study* 43:269-279.

³⁰ Gill, J.A., Sutherland, W.J. & Norris, K. (1998) The consequences of human disturbance for estuarine birds. *RSPB Conservation Review* 12: 67-72.

consequences. Several empirical studies have, through correlative analysis, demonstrated that out-of-season (October-March) recreational activity can result in quantifiable disturbance:

- Underhill *et al.* (1993)³¹ counted waterfowl and all disturbance events on 54 water bodies within the South West London Waterbodies SPA and clearly correlated disturbance with a decrease in bird numbers at weekends in smaller sites and with the movement of birds within larger sites from disturbed to less disturbed areas.
- Evans & Warrington (1997)³² found that on Sundays total water bird numbers (including shoveler and gadwall) were 19% higher on Stocker's Lake LNR in Hertfordshire, and attributed this to displacement of birds resulting from greater recreational activity on surrounding water bodies at weekends relative to week days.
- Tuite *et al.* (1984)³³ used a large (379 site), long-term (10-year) dataset (September – March species counts) to correlate seasonal changes in wildfowl abundance with the presence of various recreational activities. They found that on inland water bodies shoveler was one of the most sensitive species to disturbance. The greatest impact on winter wildfowl numbers was associated with sailing/windsurfing and rowing.
- Pease *et al.* (2005)³⁴ investigated the responses of seven species of dabbling ducks to a range of potential causes of disturbance, ranging from pedestrians to vehicle movements. They determined that walking and biking created greater disturbance than vehicles and that gadwall were among the most sensitive of the species studied.
- A three-year study of wetland birds at the Stour and Orwell SPA, Ravenscroft (2005)³⁵ found that walkers, boats and dogs were the most regular source of disturbance. Despite this, the greatest responses came from relatively infrequent events, such as gun shots and aircraft noise. Birds seemed to habituate to frequent 'benign' events such as those involving vehicles, sailing and horses, but there was evidence that apparent habituation to more disruptive events related to reduced bird numbers – i.e. birds were avoiding the most frequently disturbed areas. Disturbance was greatest at high tide on the Orwell, but birds on the Stour showed greatest sensitivity.

3.9 A number of studies have shown that birds are affected more by dogs and people with dogs than by people alone, with birds flushing more readily, more frequently, at greater distances and for longer. In addition, dogs, rather than people, tend to be the cause of many management difficulties, notably by worrying grazing animals, and can cause eutrophication near paths. Nutrient-poor habitats such as heathland are particularly sensitive to the fertilising effect of inputs of phosphates, nitrogen and potassium from dog faeces³⁶.

3.10 Underhill-Day (2005)³⁷ summarises the results of visitor studies that have collected data on the use of semi-natural habitat by dogs. In surveys where 100 observations or more were reported, the mean percentage of visitors who were accompanied by dogs was 54.0%.

3.11 However the outcomes of many of these studies need to be treated with care. For instance, the effect of disturbance is not necessarily correlated with the impact of disturbance, i.e. the most easily disturbed species are not necessarily those that will suffer the greatest impacts. It has been shown that, in some cases, the most easily disturbed birds simply move to other feeding sites, whilst others may remain (possibly due to an absence of alternative sites) and thus suffer greater impacts on their population³⁸. A literature review undertaken for the RSPB³⁹ also urges caution when extrapolating the results of one disturbance study because responses differ between species and the response

³¹ Underhill, M. C., Kirby, J. S., Bell, M. C. & Robinthwaite, J. (1993) Use of Waterbodies in South West London by Waterfowl. An Investigation of the Factors Affecting Distribution, Abundance and Community Structure. Report to Thames Water Utilities Ltd. and English Nature. Wetlands Advisory Service, Slimbridge.

³² Evans, D.M. & Warrington, S. (1997) The effects of recreational disturbance on wintering waterbirds on a mature gravel pit lake near London. *International Journal of Environmental Studies* 53: 167-182.

³³ Tuite, C.H., Hanson, P.R. & Owen, M. (1984) Some ecological factors affecting winter wildfowl distribution on inland waters in England and Wales and the influence of water-based recreation. *Journal of Applied Ecology* 21: 41-62.

³⁴ Pease, M.L., Rose, R.K. & Butler, M.J. (2005) Effects of human disturbances on the behavior of wintering ducks. *Wildlife Society Bulletin* 33 (1): 103-112.

³⁵ Ravenscroft, N. (2005) Pilot study into disturbance of waders and wildfowl on the Stour-Orwell SPA: analysis of 2004/05 data. Era report 44, Report to Suffolk Coast & Heaths Unit.

³⁶ Shaw, P.J.A., Lankey, K. & Hollingham, S.A. (1995) Impacts of trampling and dog fouling on vegetation and soil conditions on Headley Heath. *The London Naturalist*, 74, 77-82.

³⁷ Underhill-Day, J.C. (2005). A literature review of urban effects on lowland heaths and their wildlife. Natural England Research Report 623.

³⁸ Gill, J.A., Norris, K. & Sutherland, W.J. (2001) Why behavioural responses may not reflect the population consequences of human disturbance. *Biological Conservation*, 97, 265-268.

³⁹ Woodfield, E. & Langston, R. (2004) Literature review on the impact on bird population of disturbance due to human access on foot. *RSPB research report* No. 9.

of one species may differ according to local environmental conditions. These facts have to be taken into account when attempting to predict the impacts of future recreational pressure on internationally designated sites.

- 3.12 Disturbing activities are on a continuum. The most disturbing activities are likely to be those that involve irregular, infrequent, unpredictable loud noise events, movement or vibration of long duration (such as those often associated with construction activities). Birds are least likely to be disturbed by activities that involve regular, frequent,

predictable, quiet patterns of sound or movement or minimal vibration. The further any activity is from the birds, the less likely it is to result in disturbance.

- 3.13 The factors that influence a species response to a disturbance are numerous, but the three key factors are species sensitivity, proximity of disturbance sources and timing/duration of the potentially disturbing activity.
- 3.14 Effects of increased recreational activities as a result of increased residential development stemming from the Plan on both Epping Forest SAC and the Essex Coastal Sites are assessed further in Chapters 5.1 and 6.1 respectively.

Atmospheric Pollution

- 3.15 The main pollutants of concern for European sites are oxides of nitrogen (NO_x), ammonia (NH₃) and sulphur dioxide (SO₂). Ammonia can be directly toxic to vegetation, and research suggests that this may also be true for NO_x at very high concentrations. More significantly, greater NO_x or ammonia concentrations within the atmosphere will lead to greater rates of nitrogen deposition to vegetation and soils. An increase in the deposition of nitrogen from the atmosphere is generally regarded to lead to an increase in soil fertility, which can have a serious deleterious effect on the quality of semi-natural, nitrogen-limited terrestrial habitats.

Table 2: Main sources and effects of air pollutants on habitats and species

Pollutant	Source	Effects on habitats and species
Acid deposition	SO ₂ , NO _x and ammonia all contribute to acid deposition. Although future trends in SO ₂ emissions and subsequent deposition to terrestrial and aquatic ecosystems will continue to decline, it is likely that increased NO _x emissions may cancel out any gains produced by reduced SO ₂ levels.	Can affect habitats and species through both wet (acid rain) and dry deposition. Some sites will be more at risk than others depending on soil type, bed rock geology, weathering rate and buffering capacity.
Ammonia (NH ₃)	Ammonia is released following decomposition and volatilisation of animal wastes. It is a naturally occurring trace gas, but levels have increased considerably with expansion in numbers of agricultural livestock. Ammonia reacts with acid pollutants such as the products of SO ₂ and NO _x emissions to produce fine ammonium (NH ₄ ⁺) - containing aerosol which may be transferred much longer distances (can therefore be a significant trans-boundary issue.)	Adverse effects are as a result of nitrogen deposition leading to eutrophication. As emissions mostly occur at ground level in the rural environment and NH ₃ is rapidly deposited, some of the most acute problems of NH ₃ deposition are for small relict nature reserves located in intensive agricultural landscapes.
Nitrogen oxides (NO _x)	Nitrogen oxides are mostly produced in combustion processes. About one quarter of the UK's emissions are from power stations, one-half from motor vehicles, and the rest from other industrial and domestic combustion processes.	Deposition of nitrogen compounds (nitrates (NO ₃), nitrogen dioxide (NO ₂) and nitric acid (HNO ₃)) can lead to both soil and freshwater acidification. In addition, NO _x can cause eutrophication of soils and water. This alters the species composition of plant communities and can eliminate sensitive species.
Nitrogen (N) deposition	The pollutants that contribute to nitrogen deposition derive mainly from NO _x and NH ₃ emissions. These pollutants cause acidification (see also acid deposition) as well as eutrophication.	Species-rich plant communities with relatively high proportions of slow-growing perennial species and bryophytes are most at risk from N eutrophication, due to its promotion of competitive and invasive species which can respond readily to elevated levels of N. N deposition can also increase the risk of damage from abiotic factors, e.g. drought and frost.
Ozone (O ₃)	A secondary pollutant generated by photochemical reactions from NO _x and volatile organic compounds (VOCs). These are mainly released by the combustion of fossil fuels. The increase in combustion of fossil fuels in the UK has led to a large increase in background ozone concentration, leading to an increased number of days when levels across the region are above 40ppb. Reducing ozone pollution is believed to require action at international level to reduce levels of the precursors that form ozone.	Concentrations of O ₃ above 40 ppb can be toxic to humans and wildlife, and can affect buildings. Increased ozone concentrations may lead to a reduction in growth of agricultural crops, decreased forest production and altered species composition in semi-natural plant communities.
Sulphur Dioxide (SO ₂)	Main sources of SO ₂ emissions are electricity generation, industry and domestic fuel combustion. May also arise from shipping and increased atmospheric concentrations in busy ports. Total SO ₂ emissions have decreased substantially in the UK since the 1980s.	Wet and dry deposition of SO ₂ acidifies soils and freshwater, and alters the species composition of plant and associated animal communities. The significance of impacts depends on levels of deposition and the buffering capacity of soils.

3.16 Sulphur dioxide emissions are overwhelmingly influenced by the output of power stations and industrial processes that require the combustion of coal and oil. Ammonia emissions are dominated by agriculture, with some chemical processes also making notable contributions. NO_x emissions, however, are dominated by the output of vehicle exhausts (more than half of all emissions). Within a 'typical' housing development, by far the largest contribution to NO_x (92%) will be made by the associated road traffic. Other sources, although relevant, are of minor importance (8%) in comparison⁴⁰. Emissions of NO_x could therefore be reasonably expected to increase as a result of greater vehicle use as an indirect effect of the plan.

3.17 Whilst Epping Forest SAC is located more than 6km from the Borough boundary, the SAC is known to already be in exceedance of its Critical Load for nitrogen deposition. Chapter 5.2 investigates the potential for increased traffic movements stemming from the Plan to interact with the SAC.

Water Quality

3.18 The quality of the water that feeds European sites is an important determinant of the nature of their habitats and the species they support. Poor water quality can have a range of environmental impacts:

3.19 At high levels, toxic chemicals and metals can result in immediate death of aquatic life, and can have detrimental effects even at lower levels, including increased vulnerability to disease and changes in wildlife behaviour.

- Eutrophication, the enrichment of plant nutrients in water, increases plant growth and consequently results in oxygen depletion. Algal blooms, which commonly result from eutrophication, increase turbidity and decrease light penetration. The decomposition of organic wastes that often accompanies eutrophication deoxygenates

⁴⁰ Proportions calculated based upon data presented in Dore CJ et al. 2005. UK Emissions of Air Pollutants 1970 – 2003. UK National Atmospheric Emissions Inventory. <http://www.airquality.co.uk/archive/index.php>

water further, augmenting the oxygen depleting effects of eutrophication. In the marine environment, nitrogen is the limiting plant nutrient and so eutrophication is associated with discharges containing available nitrogen.

- Some pesticides, industrial chemicals, and components of sewage effluent are suspected to interfere with the functioning of the endocrine system, possibly having negative effects on the reproduction and development of aquatic life.

3.20 Sewage and some industrial effluent discharges contribute to increased nutrients in the European sites and in particular to phosphate levels in watercourses.

3.21 The Plan provides for development within the following settlements that are served by the following Wastewater Treatment Works (WwTW):

Table 3: Wastewater Treatment Works with Catchments Serving Settlements Identified to Provide New Development in the Local Plan⁴¹

WwTW	Settlements with WwTW Catchment	Quantum of Residential Allocations Located within the WwTW Catchment and Approximate Quantum	Discharge Waters and Distance to European Sites
Brentwood (Nags Head)	Brentwood Warley Pilgrims Hatch	1490 net new dwellings	Discharges into Ingrebourne River (ultimately entering the River Thames at Rainham); connected to River Thames Estuaries and Marshes SPA/Ramsar 35km along an approximate south-east course.
Shenfield & Hutton	Brentwood Hutton Pilgrims Hatch	975 net new dwellings	Discharges into the River Wid at Little Crowbridge Grange, west of Billericay. The River Wid passes north-east into the River Chelmer before emerging into River Blackwater SPA/Ramsar site. The designated site is approximately 20km along a downstream course from the discharge site.
Upminster	Upminster West horndon Warley	2080 net new dwellings	Discharges into the River Mar Dyke near Childerditch (ultimately entering the River Thames at West Thurrock); connected to River Thames Estuaries and Marshes SPA/Ramsar 25km along an approximate south-east course.
Ingatestone	Ingatestone	316 net new dwellings	Discharges into the River Wid east of Ingatestone. The River Wid passes north-east into the River Chelmer before emerging into River Blackwater SPA/Ramsar site. The designated site is approximately 20km along a downstream course from the discharge site.
Doddinghurst	Doddinghurst Kelvedon Hatch	169 net new dwellings	Discharges east of Doddinghurst which enters the River Wid. This ultimately reaches River Blackwater SPA/Ramsar approximately 27km along a north-east course.

3.22 Epping Forest SAC is not vulnerable to changes in water levels. As such, this impact pathway is investigated further with regards to the Essex Coastal European Sites only in paragraph 5.3

⁴¹ Brentwood Scoping and Outline Water Cycle Study - <http://www.brentwood.gov.uk/pdf/21032011165157u.pdf>

4. Summary of Likely Significant Effects

- 4.1 The Likely Significant Effects test of the Local Plan policies is undertaken in Appendix A; this chapter provides a summary of that screening process.
- 4.2 It should be noted, that whilst the Local Plan provides both residential and employment site allocations, these have previously been subject to HRA⁴². As site allocations remain unchanged, these are not revisited. The Site Allocation HRA enabled all site allocations to be screened out in isolation, however in combination effects required further consideration.
- 4.3 Appendix C enables all Local Plan policies to be screened out from resulting in likely significant effects in isolation. This is primarily due to the distances from Brentwood District boundary to European designated sites. However, the Likely Significant Effects test identifies that the following policies have the potential to act in combination with neighbouring plans, and result in a Likely Significant Effect in combination.
- 4.4 These policies are as follows:
- SP05: Housing Growth: Housing Growth. This policy allocates 7,392 net new houses during the plan period. It provides for **atmospheric pollution** as a linking impact pathway to Epping Forest SAC, and increased **recreational pressure** and **adverse water quality** as potential linking impact pathways to the Essex Coast European sites.
 - BEXX: Provision for Gypsies and Travellers. This policy allocates 13 permanent Gypsy and Traveller pitches during the plan period. It provides for **atmospheric pollution** as a linking impact pathway to Epping Forest SAC, and increased **recreational pressure** and **adverse water quality** as potential linking impact pathways to the Essex Coast European sites.
 - BEXX: Regularising Suitable Existing Traveller Sites. This policy two new sites for Gypsies and Travellers (7 pitches) during the plan period. It provides for **atmospheric pollution** as a linking impact pathway to Epping Forest SAC, and increased **recreational pressure** and **adverse water quality** as potential linking impact pathways to the Essex Coast European sites.
 - SP12: Employment Land Provision. This policy allocates a total of 3.28ha of employment land that is to be placed with Brentwood. It provides for **atmospheric pollution** as a linking impact pathway to Epping Forest SAC, and **adverse water quality** as a potential linking impact pathways to the Essex Coast European sites.
 - SP06: Job Growth. This policy aims to provide a total of 5,000 additional jobs within the Borough over the course of the Plan period. It provides for **atmospheric pollution** as a linking impact pathway to Epping Forest SAC, and adverse water quality as a potential linking impact pathways to the Essex Coast European sites.
 - BEXX: Brentwood Enterprise Park (101A). This policy allocates a single development site for employment purposes at the Brentwood Enterprise Park. It provides for **atmospheric pollution** as a linking impact pathway

⁴² AECOM. (January 2018) Habitats Regulations Assessment of Brentwood District Council Draft Local Plan: Preferred Site Allocations Regulation 18 Consultation (January 2018). Brentwood District Council

to Epping Forest SAC, and **adverse water quality** as a potential linking impact pathways to the Essex Coast European sites.

- SP07: Retail and Commercial Leisure Growth. This policy allocates retail floorspace within Brentwood Borough. It provides for **atmospheric pollution** as a linking impact pathway to Epping Forest SAC, and **adverse water quality** as a potential linking impact pathways to the Essex Coast European sites.
- X: Brentwood Enterprise Park. This policy allocates a single development site for employment purposes at the Brentwood Enterprise Park. It provides for **atmospheric pollution** as a linking impact pathway to Epping Forest SAC, and **adverse water quality** as a potential linking impact pathways to the Essex Coast European sites.

4.5 As such, based on the above summary it is the following impact pathways that will be subject to Appropriate Assessment within the remainder of this document:

- Epping Forest: atmospheric pollution
- Essex Coast European sites: recreational pressure
- Essex Coast European sites: adverse water quality

5. Appropriate Assessment: Epping Forest SAC

Recreational Pressure

- 5.1 Epping Forest SAC receives a great many visits per year (estimated at over 4 million) and discussions with the City of London Corporation have identified long-standing concerns about increasing recreational use of the Forest resulting in damage to its interest features. A programme of detailed formal visitor surveys has been undertaken in recent years. A 2011 visitor survey report⁴³ identified that those living within 2km of the edge of the Forest comprise at least 95% of all visitors. However, further analysis of these data was undertaken by Footprint Ecology in September 2016⁴⁴. This further analysis identified that, although the scale of the data was substantial (in 2014 alone almost 900 questionnaires were returned) the catchment appeared to be larger than suggested by previous reports. A new survey was therefore undertaken in late 2017 and this identified that 75% of visitors live within 6.2km of the SAC, although visitor origin is not evenly distributed around the SAC; in Essex the major points of visitor origin are within 3km of the SAC, while in London the points of visitor origin are much more dispersed.
- 5.2 In September 2018, Natural England issued an Interim Advice Letter⁴⁵ to those local authorities that are located around Epping Forest SAC, including Brentwood District Council. This letter provided interim advice regarding the *'Emerging strategic approach relating to the Epping Forest Special Area of Conservation (SAC) Mitigation Strategy. Interim advice to ensure new residential development and any associated recreational impacts on Epping Forest SAC are compliant with the Habitats Regulations'*. The Interim Advice Letter identified that as part of the work required to produce the Mitigation Strategy, *'Footprint Ecology undertook a visitor survey to identify a recreational zone of influence and to identify the distance the majority of visitors will travel to visit Epping Forest SAC. This report identified that 75% of visitors travelled up to 6.2Km to the SAC. Natural England therefore advises that in this interim period a zone of influence of 6.2Km is used to determine whether residential applications will have a recreational impact on Epping Forest SAC.'*
- 5.3 As such it is this distance of 6.2km from Epping Forest SAC site boundary that is considered to be the recreational Zone of Influence (Zoi). Brentwood District just clips this zone (as noted in the Natural England advice); however the area within the 6.2km Zoi is (from review of freely available online imagery and mapping) woodland and arable farmland located in a rural setting and is highly unlikely to receive net new residential development (as opposed to replacement dwellings) within the Plan period. The nearest area that *might* receive a very small net increase in dwellings during the plan period due to (for example) windfall is Navestock Heath but this is a very small village and is situated well outside the 6.2km zone, being 9km from the SAC at its closest. The nearest suburban or urban area to the SAC (most likely to receive net new housing) is Pilgrims Hatch located 13km from the SAC. It is therefore concluded that recreational pressure on Epping Forest SAC is not a realistic linking impact pathway linking to the Brentwood Plan. **As such it is considered that the Plan will not result in an adverse effect alone or in combination.**

Atmospheric Pollution

- 5.4 Epping Forest SAC is known to be adversely affected by relatively poor local air quality alongside the roads that traverse the SAC and this has been demonstrated to have negatively affected the epiphytic lichen communities of the woodland. The nature of the road network around Epping Forest SAC is such that journeys between a number of key settlements around the Forest by car, van or bus effectively necessitate traversing the SAC. Modelling undertaken for the West Essex/East Hertfordshire Housing Market Area (HMA) authorities in 2016 indicated that even on B roads through the SAC vehicle flows are substantial (e.g. a 2014 base case of c.20,000 AADT on the B1393 with roadside NO_x concentrations of 60µg^m-³, twice the critical level) while the A121 between Wake Arms Roundabout and the M25 had 2014 base flows of 25,000 AADT. Moreover, lengthy queues are known to build around

⁴³ Alison Millward Associates. 2011. Epping Forest Visitor Survey 2011: Results Summary

⁴⁴ Footprint Ecology (2016). Initial review of current visitor data for Epping Forest

⁴⁵ Natural England (20th September 2018) Interim Advice Letter relating to *'Emerging strategic approach relating to the Epping Forest Special Area of Conservation (SAC) Mitigation Strategy. Interim advice to ensure new residential development and any associated recreational impacts on Epping Forest SAC are compliant with the Habitats Regulations'*

most arms of Wake Arms Roundabout, which increases emissions compared to the same volume and composition of free-flowing traffic. In response to this, the HMA Authorities have co-signed a Memorandum of Understanding⁴⁶ (MoU) that identifies the need for a mitigation strategy to address potential increases in atmospheric pollution at Epping Forest SAC as a result of planned development. However, these data are now out of date and at the time of writing (October 2018) were being updated.

- 5.5 The modelling being undertaken for the West Essex/East Herts HMA is well advanced but has not yet been published and is subject to further changes. However, it is understood that the modelling clearly indicates that for the key roads through the SAC in Essex projected housing and employment growth arising from outside the HMA plays a negligible contribution in forecast changes in traffic and thus roadside air quality. This is due to the minimal role that the modelled roads play in journeys to work for people resident outside the West Essex/East Herts HMA. Indeed, changes in traffic flows on the modelled roads are overwhelmingly dominated by housing and employment growth in Epping Forest District itself, with even other parts of the same HMA (Harlow, East Herts and Uttlesford) playing a minimal role.
- 5.6 While parts of the SAC also lie within 200m of the A12 and A406 in the London Borough of Waltham Forest, 2011 Census data indicate that only 305 road-based journeys to work currently arising from Brentwood District are to destinations which *might* involve using those routes i.e. destinations in the London Boroughs of Waltham Forest, Haringey or Hackney. This is less than 2% of the 17,752 daily journeys to work to other districts that arise from Brentwood and is likely to be considerably less than 1% of all journeys to work for Brentwood residents when one adds in those people who both live and work in Brentwood. In short, routes through Epping Forest SAC play a negligible role in journeys to work for Brentwood residents and there is no reason to expect this pattern to change.
- 5.7 **It is therefore considered that a conclusion of no adverse effects on integrity alone or in combination can be reached with regard to the Brentwood Plan.** This conclusion will be reviewed as necessary once the modelling data for the West Essex/East Herts HMA are published.
- 5.8 Notwithstanding this conclusion, it should be acknowledged that the Plan provides positive policies that aim to reduce and/ or limit the increase of atmospheric pollution contributions as a result of development associated with the Local Plan. These are as follows:
- NE08: Air Quality
 - SP08: Planning and Design for Resilience to Climate Change
 - SP09: Future Proofing
 - POLICY BEXX: Strategic Transport Infrastructure
 - BEXX: Car-light Development
 - BEXX: Sustainable Means of Travel and Walkable Streets
 - BEXX: Electric and Low Emission Vehicle
 - BEXX: Carbon Reduction, Renewable Energy and Water Efficiency
 - BEXX: Improving Energy Efficiency in Existing Dwellings
 - X: Communications Infrastructure
 - SP16: Creating Successful Places
- 5.9 This reinforces the conclusion of no adverse effect on integrity.

⁴⁶ MoU on. Managing the impacts of growth within the West Essex/ East Hertfordshire Housing Market Area on Epping Forest Special Area of Conservation (draft September 2016)

6. Appropriate Assessment: Essex Coastal European Sites

Recreational Pressure

6.1 It has been identified that coastal European sites in Essex are vulnerable to increased recreational pressure. As such Natural England has been working with neighbouring district, borough and county authorities to devise a strategic mitigation strategy to ensure that the increase in residential development within these authorities does not affect the sensitive European sites. In November 2017, Natural England issued interim advice regarding the 'Essex Recreational Disturbance Avoidance and Mitigation Strategy (RAMS)'. This identified core recreational catchments for the Essex Coastal sites as follows:

Table 4: The Recreational Zone of Influence for Essex Coastal European Sites⁴⁷

European Site	Zone of Influence (km)	Distance from the Borough Boundary (km)
Essex Estuaries SAC	24	12
Thames Estuary and Marshes Ramsar and SPA	10	8.3
Crouch and Roach Estuaries Ramsar and SPA	10	12.4
Benfleet and Southend Marshes Ramsar and SPA	10	13.4
Blackwater Estuary Ramsar and SPA	8	19.8

6.2 Table 4 identifies that two European sites have a recreational Zone of Influence that extends to Brentwood Borough. These are Essex Estuaries SAC (with a recreational Zone of Influence of 24km) and Thames Estuary and Marshes Ramsar and SPA (with a recreational Zone of Influence of 10km).

6.3 It is these two European sites (Essex Estuaries SAC and the Thames Estuary and Marshes Ramsar and SPA) that are discussed further within this Chapter. Due to the distances involved the three remaining Essex Coastal sites (Crouch and Roach Estuaries SPA and Ramsar site, Benfleet and Southend Marshes Ramsar and SPA, and Blackwater Estuary Ramsar and SPA site) can be screened out as recreational pressure from Brentwood is not a realistic linking impact pathway.

6.4 The entire of Brentwood District is located within 24km of the Essex Estuaries SAC, whilst a portion of the District is located within 10km of the Thames Estuary and Marshes SPA and Ramsar site, as such any net new residential development within Brentwood District has the potential to result in Likely Significant Effect in combination. The following policies provide for development within these recreational Zones of Influence and thus, unmitigated, potentially result in Likely Significant Effect:

- SP05: Housing Growth: Housing Growth
- BEXX: Provision for Gypsies and Travellers
- BEXX: Regularising Suitable Existing Traveller Sites
- GV1: Dunton Hills Garden Village

6.5 Brentwood Council recognises that there are significant threats to the Essex Estuaries European sites due to a net increase in residential development. As such the Council have also produced protective policies that safeguard the local environment and the European Sites that lies within catchment of the Brentwood Borough. These policies and policy text include:

- NE03: Recreational Disturbance Avoidance and Mitigation Strategy (RAMS): *'New development will need to consider on-site options for recreational disturbance impact mitigation and make appropriate financial*

contributions towards off site mitigation as prescribed in the Essex Coastal 'RAMS' mitigation strategy and the Epping Forest 'RAMS' mitigation strategy (as applicable).

Prior to RAMS completions, the Council will seek proportionate contributions from proposed residential development to deliver all measures identified (including strategic measures) through project level HRAs, or otherwise, to mitigate any recreational disturbance impacts in compliance with the Habitat Regulations and Habitats Directive.

This policy should be read in conjunction with Policy XXX: Wildlife and Nature Conservation XXX Development Contributions.'

6.6 A single recommendation is made with regards to NE04: Wildlife and Nature Conservation: It is recommended that policy wording is amended to ensure that development will not be permitted where an adverse effect on the integrity of a European site will result.

- NE04: Wildlife and Nature Conservation: *'Sites of Special Scientific Interest (SSSIs), National Nature Reserves (NNR), Special Protection Areas (SPAs), Special Areas of Conservation (SACs) and Ramsar sites - as shown*

⁴⁷ Taken from Natural England interim guidance letter dated 16th November 2017 'Essex Recreational disturbance Avoidance and Mitigation Strategy (RAMS) – Interim advice to ensure new residential development and any associated recreational disturbance impacts on European designated sites are compliant with the Habitats Regulations'

on the Proposals Map - are unique and irreplaceable habitats and will require a full assessment in line with European legislation.'

- NE05: Ecology and Biodiversity: *'All development proposals should:*
 - *seek opportunities to support and integrate biodiversity in the built environment;*
 - *conserve, protect and enhance the network of habitats, species and sites (both statutory and non-statutory, including priority habitats and species) of international, national and local importance commensurate with their status;*
 - *not result in any unacceptable impact on biodiversity and geodiversity, and mitigate all unavoidable impacts; and*
 - *deliver a net gain in biodiversity where possible, by creating, restoring and enhancing habitats that are of particular relevance and benefits in the local context.'*

6.7 It is noted that currently, no bespoke visitor survey data exists for the Thames Estuary & Marshes SPA/Ramsar to inform the recreational Zone of Influence. However, the evidence base for recreation disturbance for this site and all other internationally designated sites within the Essex Coastal region is to be refined, as required, through the addition of bespoke visitor surveys. It is therefore possible that the recreational Zone of Influence for each site will be subject to change. However, in light of the most current data the above Zones of Influence stand. As the RAMS development progresses, Natural England's advice and recommendation may change. As such this HRA assessment may require updating in time. However, **it can be concluded that increased recreational pressure stemming from increased residential development provided by the Plan will not affect the integrity of any of the Essex Coastal European sites in combination.**

Water Quality

6.1. Five wastewater treatment works (WwTW) serve the urban areas in Brentwood. These are:

- Doddinghurst WwTW
- Ingatestone WwTW
- Shenfiels and Hutton WwTW
- Upminster WwTW
- Brentwood WwTW

6.8 These are all provided by Anglian Water other than Brentwood WwTW which is provided by Thames Water (see Table 3 for the catchments of each of these WwTW).

6.9 The Brentwood Scoping and Outline Water Cycle Study (WCS) (2011)⁴⁸ identified that *'Brentwood WwTW and Shenfield and Hutton WwTW have the greatest spare flow capacity, and should be able to accommodate more of the proposed development. Upminster works also has capacity for additional growth'*. It identified that both Doddinghurst WwTW and Ingatestone WwTW have limited head room capacities. The Waste Water Treatment Works Needs Assessment in Essex and Southend-on-Sea (2014)⁴⁹ identified that for Ingatestone WwTW *'planned growth will bring the WwTWs close to its limit. Additionally, the WwTWs must currently treat wastewater to a high standard which could potentially limit growth'*. In 2014 this WwTW only had capacity for an additional 55 dwellings. Additionally, the WCS suggests that for the purposes of Plan preparation, these two WwTW should be considered to be at capacity and not able to accommodate increased growth.

6.10 Water from both Ingatestone WwTW (serves the settlement of Ingatestone) and Doddinghurst WwTW (serves the settlements of Doddinghurst and Kelvedon Hatch) discharges into the River Wid, and ultimately the River Chelmer before flowing into the River Blackwater and the Blackwater Estuary SPA and Ramsar site and the Essex Estuaries SAC more than 19km downstream from the Borough boundary (in a straight line).

⁴⁸ <http://www.brentwood.gov.uk/pdf/21032011165157u.pdf> [accessed 25/01/2018]

⁴⁹ URS Waste Water Treatment Works Needs Assessment in Essex and Southend-on-Sea (2014) https://www.essex.gov.uk/Environment%20Planning/Planning/Minerals-Waste-Planning-Team/Planning-Policy/Documents/ECC_WwTW_Final_Part_A.pdf [accessed 25/01/2018]

- 6.11 Due to the estuarine conditions and dynamic tidal processes in the Essex Coastal European sites, water conditions are essentially cold and relatively turbid with high levels of water movement and wave action. As such, inflows into the estuarine sites are constantly changing and water is flushed away from the area dispersing any waste water and associated sedimentation, phosphates, ammonia and Biochemical Oxygen Demand (BOD). In addition, the conditions described above tend to result in the various Essex estuaries being less susceptible to excessive macro-algal summer growth and winter persistence (and thus smothering of underlying sediments) than the estuaries in the warmer, clearer, calmer waters of the south coast such as the Solent estuaries, notwithstanding their generally hyper-nutriented status. This is supported by the analyses contained in several of the Environment Agency's Stage 3 Review of Consents reports for these estuaries. As such, the features for which these sites are designated (see Appendix A) are likely to be affected by wastewater discharge to a much smaller extent than other estuarine sites, particularly at distances of more than 19km, with consequent extensive dilution.
- 6.12 It is ultimately to the responsibility of the competent authority (in this case the Environment Agency) and water company to determine headroom capacities of WwTW such as Ingatestone and Doddinghurst and it is the Environment Agency's Review of Consents process that will ultimately determine whether amended consents can be granted. **However, the Council needs confidence in the deliverability of its housing allocations. In light of the fact that both Ingatestone and Doddinghurst WwTW's are at capacity, it is recommended that the Council liaise with Thames Water and Anglian Water to ensure that development is delivered in locations that can accommodate increased sewage inputs. If upgrades to these two WwTW, or novel treatment solutions, are required then either the distribution of housing or the housing trajectory should reflect the need for those upgrades by (for example) avoiding front-loading of growth in the catchments of these WwTWs.**
- 6.13 To aid this decision, process it is noted that Plan policy provides the following protective policies:
- NE10: Flood Risk. *'Applications will need to demonstrate that the sewerage provider has been contacted to identify whether the sewerage network has adequate capacity both on and off site to serve the development and to assess the need to contribute to any additional connections for the development to prevent flooding or pollution of land and water courses'*
- 6.14 However, it is considered that a conversation between the Council and the relevant water companies is also required at a strategic level. Once this conversation has taken place and it can be confirmed that the water companies have no core concerns, it will be possible to conclude no adverse effect on integrity from the Brentwood Plan.

7. Summary of Recommendations and Conclusions

- 7.1 The preceding assessment undertakes an assessment against the Habitats Regulations of the Draft Regulation 19 Local Plan
- 7.2 Following the Likely Significant Effects test (conducted in Appendix C) it was considered that Plan policy could result in the Likely Significant Effects resulting in the following linking impact pathways:
- Epping Forest: atmospheric pollution
 - Essex Coast European sites: recreational pressure
 - Essex Coast European sites: adverse water quality
- 7.3 It is these that were subject to Appropriate Assessment.
- 7.4 **A single recommendation is made with regards to NE04: Wildlife and Nature Conservation: It is recommended that policy wording is amended to ensure that development will not be permitted where an adverse effect on the integrity of a European site will result.**
- 7.5 It is also recommended that (unless it has already taken place) the Council seeks confirmation from the relevant water companies that their housing/employment distribution and trajectory does not pose issues with regard to the known capacity limitations of Ingatestone and Doddinghurst WWTWs.
- 7.6 Following Appropriate Assessment (conducted in Chapter 5 for Epping Forest and Chapter 6 for the Essex Coastal European sites), it was concluded that the Brentwood Local Plan provides sufficient policy framework to ensure that no adverse effects on the integrity of European sites results.

Appendix A European Designated Sites Background

Epping Forest SAC

Introduction

Part of the Epping Forest SAC is located within Epping Forest District. Approximately 70% of the 1,600 hectare (ha) site consists of broadleaved deciduous woodland, and it is one of only a few remaining large-scale examples of ancient wood-pasture in lowland Britain. Epping Forest SAC supports a nationally outstanding assemblage of invertebrates, a major amphibian interest and an exceptional breeding bird community.

Reasons for Designation⁵⁰

Epping Forest qualifies as a SAC for both habitats and species. The site contains the following Habitats Directive Annex I habitats:

- Beech forests on acid soils with *Ilex* and some *Taxus* in the shrublayer;
- Wet heathland with cross-leaved heath; and
- Dry heath.

The site also contains the Habitats Directive Annex II species, stag beetle *Lucanus cervus*, with widespread and frequent records.

Current Pressures and Threats⁵¹

- Air pollution
- Under grazing
- Public disturbance
- Changes in species distribution
- Inappropriate water levels
- Water pollution
- Invasive species
- Disease

Conservation Objectives

Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring;

- The extent and distribution of qualifying natural habitats and habitats of qualifying species;
- The structure and function (including typical species) of qualifying natural habitats;
- The structure and function of the habitats of qualifying species;
- The supporting processes on which qualifying natural habitats and the habitats of qualifying species rely;
- The populations of qualifying species, and,
- The distribution of qualifying species within the site.

⁵⁰ JNCC. (2015) Natura 2000 Standard Data Form: Epping Forest SAC.

⁵¹ Natural England. (2015) Site Improvement Plan: Epping Forest SAC.

Thames Estuaries and Marshes SPA and Ramsar Site

Introduction

The Thames Estuaries and Marshes comprise intertidal mudflats visible at low tide, saltmarsh and complex channel systems across a 4802.5ha area along the outer Thames Estuary. In addition, a series of disused quarry pits have been transformed to create an extensive series of ponds and lakes at Cliffe Pools. Levees and seawalls bound most intertidal areas, occasionally featuring small beaches. These coastal features support internationally important numbers of wintering avocet, dunlin, grey plover, knot, redshank and hen harrier, and summer populations of black-tailed godwit and ringed plover. The site also qualifies as a Ramsar site on account of the

saltmarsh and grazing marsh supporting diverse and internationally important assemblages of wetland plants and invertebrates.

The Thames Estuaries and Marshes SPA and Ramsar site consists of two Sites of Special Scientific Interest: Mucking Flats and Marshes SSSI, and South Thames Estuary and Marshes SSSI. Of these Sites, only Mucking Flats and Marshes SSSI is located in Essex, whereas South Thames Estuary and Marshes SSSI is located across the Thames in northern Kent.

Reasons for Designation

The Thames Estuaries and Marshes site is designated as an SPA⁵² for its Birds Directive Annex I and Ramsar site under criterion 6⁵³ for species that over-winter and over-summer. Over-summering species include:

- Ringed plover *Charadrius hiaticula*; and
- Black-tailed godwit *Limosa limosa islandica*.

Over-wintering species include:

- Grey plover *Pluvialis squatarola*;
- Red knot *Calidris canutus islandica*;
- Dunlin *Calidris alpina alpina*; and
- Common redshank *Tringa totanus totanus*.

In addition, the site qualifies as a Ramsar site under criterion 2⁵⁵, by supporting the endangered least lettuce *Lactuca saligna* and at least 14 nationally scarce plants of wetland habitats, including bulbous foxtail *Alopecurus bulbosus*.

Current Pressures and Threats⁵⁴

- Coastal squeeze
- Public access/disturbance
- Invasive species
- Changes in species distribution
- Fisheries: commercial marine and estuarine
- Vehicles: illicit
- Air pollution: risk of atmospheric nitrogen

Conservation Objectives⁵⁵

With regard to the SPA and the individual species and/or assemblage of species for which the site has been classified (the 'Qualifying Features'), and subject to natural change;

Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the aims of the Wild Birds Directive, by maintaining or restoring;

- The extent and distribution of the habitats of the qualifying features;
- The structure and function of the habitats of the qualifying features;
- The supporting processes on which the habitats of the qualifying features rely;
- The population of each of the qualifying features; and,
- The distribution of the qualifying features within the site.

Essex Estuaries SAC

⁵² <http://jncc.defra.gov.uk/page-2042> [accessed 18/01/2018]
⁵³ <http://jncc.defra.gov.uk/pdf/RIS/UK11069.pdf> [accessed 18/01/2018]
⁵⁴ <http://publications.naturalengland.org.uk/publication/6270737467834368> [accessed 18/01/2018]
⁵⁵ <http://publications.naturalengland.org.uk/file/5268280864407552> [accessed 18/01/2018]

Introduction

The SAC comprises a large estuarine site along the Essex coastline of largely undeveloped coastal plain estuaries with associated open coast mudflats and sandbank and encompasses the Colne, Blackwater, Crouch and Roach estuaries. The Essex Estuaries SAC supports a diverse range of marine and estuarine sediment communities which in turn support diverse and unusual marine communities. The site is designated for the presence of several European designated priority habitats, including Atlantic salt meadows⁵⁶.

This SAC overlaps with several protected areas, including Blackwater Estuary Ramsar/SPA, Colne Estuary Ramsar/SPA, Crouch and Roach Estuaries Ramsar/SPA, Dengie Ramsar/SPA, Foulness Ramsar/SPA and Outer Thames SPA. In addition, the SAC consists of the following seven SSSIs:

- Blackwater Estuary SSSI
- Colne Estuary SSSI
- Crouch and Roach Estuary SSSI
- Dengie SSSI
- Foulness SSSI
- The Cliff, Burnham-On-Crouch SSSI
- Upper Colne Marshes SSSI

Reasons for Designation⁵⁸

Essex Estuaries qualifies as a SAC through its habitats, containing the Habitats Directive Annex I habitat:

- Estuaries – an extensive, continuous area of estuarine habitat;
- Mudflats and sandflats not covered by seawater at low tide;
- Salicornia and other annuals colonizing mud and sand;
- Spartina swards;
- Atlantic salt meadows; and,
- Mediterranean and thermo-Atlantic halophilous scrubs.

Current Pressures and Threats⁵⁷

- Coastal squeeze
- Public access/disturbance
- Invasive species
- Changes in species distribution
- Fisheries: commercial marine and estuarine
- Vehicles: illicit
- Air pollution: risk of atmospheric nitrogen deposition
- General planning permission

Conservation Objectives⁵⁸

With regard to the SAC and the natural habitats and/or species for which the site has been designated (the 'Qualifying Features'), and subject to natural change:

Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring:

- The extent and distribution of qualifying natural habitats;

- The structure and function (including typical species) of qualifying natural habitats; and
- The supporting processes on which qualifying natural habitats rely.

Crouch and Roach SPA and Ramsar Site

Introduction

The Crouch and Roach Estuaries is located on the Essex south coast spanning across 1735.58ha. The estuaries partly form from the River Crouch which is predominantly located between two ridges of London Clay and partly from the River Roach, which is set between areas of brick earth and loams. Coastal squeezing of the intertidal zone has left a narrow strip of tidal mud, which is used by significant bird numbers. The site is of importance for wintering waterbirds, such as the dark-bellied Brent goose *Branta b. bernicla*⁵⁹.

The Crouch and Roach Estuaries SPA and Ramsar site consists of a single Sites of Special Scientific Interest, Crouch and Roach Estuaries SSSI.

Reasons for Designation

The Crouch and Roach site is designated as an SPA⁶¹: for its Birds Directive Annex I and Ramsar site under criterion 6⁶⁰ for species that over-winter. This designation is provided for the presence of an internationally important population of dark-bellied Brent goose *Branta bernicla bernicla* (1% of total wintering Western European population).

In addition, the site qualifies as a Ramsar under criterion 2⁶¹, by supporting the vulnerable, endangered and at least 13 nationally scarce plants of wetland habitats, including slender hare's ear *Bupleurum tenuissimum*.

⁵⁶ <http://jncc.defra.gov.uk/protectedsites/sacselection/sac.asp?EUCode=UK0013690> [accessed 18/01/2018]

⁵⁷ <http://publications.naturalengland.org.uk/publication/5459956190937088> [accessed 08/01/2018]

⁵⁹ <http://jncc.defra.gov.uk/default.aspx?page=2019> [accessed 18/01/2017]

⁶¹ <http://jncc.defra.gov.uk/pdf/RIS/UK11058.pdf>[accessed 18/01/2017]

Several important invertebrate species are also present on site, including scarce emerald damselfly *Lestes dryas* and the large horsefly *Hybomitra expollicata*.

Current Pressures and Threats⁶²

- Coastal squeeze
- Public access/disturbance
- Invasive species
- Changes in species distribution
- Fisheries: commercial marine and estuarine
- Vehicles: illicit
- Air pollution: risk of atmospheric nitrogen

Conservation Objectives⁶³

With regard to the SPA and the individual species and/or assemblage of species for which the site has been classified (the 'Qualifying Features'), and subject to natural change;

Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the aims of the Wild Birds Directive, by maintaining or restoring:

- The extent and distribution of the habitats of the qualifying features
- The structure and function of the habitats of the qualifying features
- The supporting processes on which the habitats of the qualifying features rely
- The population of each of the qualifying features, and,
- The distribution of the qualifying features within the site.

Benfleet and Southend Marshes SPA and Ramsar Site

Introduction

The Benfleet and Southampton Marshes are located on the north shore of the Outer Thames Estuary in Essex. The site covers a 2251.31ha area comprising an extensive series of saltmarshes, cockle shell banks, mudflats and grassland that support a diverse flora and fauna. The productive mudflats, cockle shell banks and saltmarsh

⁶² <http://publications.naturalengland.org.uk/publication/6270737467834368> [accessed 18/01/2018]

⁶³ [file:///C:/Users/Ashley.Welch.NA/Downloads/UK9009244-Crouch-and-Roach-Estuaries-\(Mid-Essex-Coast-Phase-3\)-SPA-V2.pdf](file:///C:/Users/Ashley.Welch.NA/Downloads/UK9009244-Crouch-and-Roach-Estuaries-(Mid-Essex-Coast-Phase-3)-SPA-V2.pdf) [accessed 18/01/2018]

communities provide a wide range of feeding and roosting opportunities for internationally important numbers of wintering wildfowl and waders, such as the over-wintering population of dark-bellied brent geese⁶⁴.

The Benfleet and Southend Marshes SPA/Ramsar consist of a single Site of Special Scientific Interest, Benfleet and Southend Marshes SSSI.

Reasons for Designation

The Thames Estuaries and Marshes site is designated as an SPA⁶⁸ for its Birds Directive Annex I and Ramsar site under criterion 6⁶⁵ for on passage and over-wintering species. On passage species include:

- Ringed plover (*Charadrius hiaticula*);

Over-wintering species include:

- Dark-bellied Brent goose
- Grey plover
- Knot

Current Pressures and Threats⁶⁶

- Coastal squeeze
- Public access/disturbance
- Invasive species
- Changes in species distribution
- Fisheries: commercial marine and estuarine
- Vehicles: illicit
- Air pollution: risk of atmospheric nitrogen

Conservation Objectives⁶⁷

With regard to the SPA and the individual species and/or assemblage of species for which the site has been classified (the 'Qualifying Features'), and subject to natural change;

Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the aims of the Wild Birds Directive, by maintaining or restoring;

- The extent and distribution of the habitats of the qualifying features
- The structure and function of the habitats of the qualifying features
- The supporting processes on which the habitats of the qualifying features rely
- The population of each of the qualifying features, and,
- The distribution of the qualifying features within the site.

Blackwater Estuary SPA and Ramsar Site

Introduction

Blackwater Estuary is the largest estuary in Essex covering a 4395.15ha area along the Essex coastline. The estuary comprises mudflats fringed by saltmarsh on the upper shores, and shingle, shell banks and offshore islands

⁶⁴ <http://jncc.defra.gov.uk/page-2014-theme=default> [accessed 19/01/2018]

⁶⁵ <http://jncc.defra.gov.uk/pdf/RIS/UK11006.pdf> [accessed 18/01/2018]

⁶⁶ <http://publications.naturalengland.org.uk/publication/6270737467834368> [accessed 18/01/2018]

⁶⁷ <file:///C:/Users/Ashley.Welch.NA/Downloads/UK9009171-Benfleet-and-Southend-Marshes-SPA-V2.pdf> [accessed 18/01/2018]

featuring on the tidal flats. In addition, the surrounding contains terrestrial habitat of high conservation importance including the sea wall, ancient grazing marsh, fleet and ditch systems, and semi-improved grassland. The diversity of estuarine habitats results in the sites being of importance for a range of overwintering waterbirds⁶⁸. The site is also important during the summer for breeding terns. In addition to the ornithological interest, the site also qualifies as a Ramsar site on account of it supporting 7% of Britain's saltmarshes. The saltmarsh also supports diverse and internationally important assemblages of wetland plants and invertebrates, including the endangered water beetle *Paracymus aeneus*, and vulnerable damselfly *Lestes dryas*⁶⁹.

The Thames Estuaries and Marshes SPA/Ramsar consist of a single Site of Special Scientific Interest, Blackwater Estuary SSSI.

Reasons for Designation

The Blackwater Estuary site is designated as an SPA⁷²: for its Birds Directive Annex I and Ramsar site under criterion 6⁷³ summer breeding, on passage, and over-wintering species. Summer breeding species include:

- Little tern *Sternula albifrons*.

On passage species include:

- Ringed plover *Charadrius hiaticula*.

Over-wintering species include:

- Avocet *Recurvirostra avosetta*;
- Golden plover *Pluvialis apricaria*;
- Hen harrier *Circus cyaneus*;
- Ruff *Philomachus pugnax*;
- Black-tailed godwit *Limosa limosa islandica*;
- Dark bellied brent goose *Branta bernicla bernicla*;
- Grey plover *Pluvialis squatarola*;
- Dunlin *Calidris alpina alpina*;
- Common redshank *Tringa totanus totanus*;
- Shelduck *Tadorna tadorna*.

In addition, the site qualifies as a Ramsar site under criterion 2⁷³, by supporting at least 16 British Red Data Book invertebrate species, including the endangered water beetle *Paracymus aeneus*, vulnerable scarce emerald

⁶⁸ <http://jncc.defra.gov.uk/default.aspx?page=2020> [accessed 19/01/2018]

⁶⁹ <http://jncc.defra.gov.uk/pdf/RIS/UK11007.pdf> [accessed 19/01/2018]

damselfly *Lestes dryas*, the fly species *Aedes flavescens*, *Erioptera bivittata*, *Hybomitra expollicata* and the spiders *Heliophanus auratus* and *Trichopterna cito*.

Current Pressures and Threats⁷⁰

- Coastal squeeze
- Public access/disturbance
- Invasive species
- Changes in species distribution
- Fisheries: commercial marine and estuarine
- Vehicles: illicit
- Air pollution: risk of atmospheric nitrogen

Conservation Objectives⁷¹

With regard to the SPA and the individual species and/or assemblage of species for which the site has been classified (the 'Qualifying Features'), and subject to natural change;

Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the aims of the Wild Birds Directive, by maintaining or restoring:

- The extent and distribution of the habitats of the qualifying features;
- The structure and function of the habitats of the qualifying features;
- The supporting processes on which the habitats of the qualifying features rely;
- The population of each of the qualifying features; and,
- The distribution of the qualifying features within the site.

⁷⁰ <http://publications.naturalengland.org.uk/publication/6270737467834368> [accessed 18/01/2018]

⁷¹ <http://publications.naturalengland.org.uk/publication/4888693533835264> [accessed 18/01/2018]

Appendix B Figures

Figure A1: Locations of Internationally Designated Sites and Site Allocations

Appendix C Likely Significant Effects Test of Plan Policies

7.7 In the following screening table, where Policies are coloured green in the 'HRA implications' column, this indicates that the Policies do not contain potential impact pathways linking to European sites, and have therefore been screened out from further consideration in isolation. Where Policies and Site Allocations are coloured orange in the 'HRA Implications' column, this indicates that the Policies and Site Allocations have potential impact pathways linking to European sites, and have therefore been screened in for further consideration in isolation within this report.

Policy	Description	HRA Implications
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<p>SP01: Sustainable Development</p>	<p>When considering development proposals, the Council will take a positive approach that reflects the presumption in favour of sustainable development contained in the National Planning Policy Framework.</p> <p>The Council will always work proactively with applicants to jointly find solutions which mean that proposals for sustainable development can be approved wherever possible, and to secure development that improves the economic, social and environmental conditions in the area.</p> <p>Planning applications that accord with policies in this Local Plan (and, where relevant, with policies in relevant Development Plan Documents, and Neighbourhood Plans) will be approved without delay, unless material considerations indicate otherwise.</p> <p>Development will be supported and is considered to contribute towards delivering the Local Plan Strategic Objectives and to be sustainable where it:</p> <ul style="list-style-type: none"> - has no unacceptable effect on visual amenity, the character appearance of the surrounding area; - provides satisfactory means of access to the site for vehicles, cyclists and pedestrians and parking and servicing arrangements; - ensures the transport network can satisfactorily accommodate the travel demand generated and traffic generation would not give rise to adverse highway conditions or highway safety concerns or unacceptable loss of amenity by reason of number or size of vehicles; - has no unacceptable effect on health, the environment or amenity due to the release of pollutants to land, water or air (light, noise pollution, vibration, odour, smoke, ash, dust and grit); - causes no unacceptable effects on adjoining sites, property or their occupiers through excessive noise, activity or vehicle movements; overlooking or visual intrusion; harm to or loss of outlook, privacy or daylight/sunlight enjoyed by occupiers of nearby properties; - takes full account of opportunities to incorporate biodiversity in developments; - delivers good design - preserves and enhances the character and settlement setting of the borough 	<p>No Likely Significant Effect</p> <p>This policy describes various planning requirements of development proposals that contribute to the Council’s Strategic Objectives. This includes the safeguarding and where possible the enhancement of economic, social and environmental conditions of the Borough. This policy is a development management policy that does not in itself provide for any quantum, type or location of development and as such there are no linking impact pathways present.</p>
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Policy	Description	HRA Implications
	<ul style="list-style-type: none"> - when considering the impact of development on the significance of a designated heritage asset, greater weight should be given to the assets conservation and enhancement; - results in no net loss of residential units; and - new development would be required to mitigate its impact on local services and community infrastructure. 	
<p>SP03: Health Impact Assessments (HIAs)</p>	<p>Development with the following characteristics are required to complete and submit as part of the planning application a Health Impact Assessment:</p> <ul style="list-style-type: none"> - Major development - proposals in areas with existing air quality exceedances, or where proposals are likely to create exceedances - proposals which are delivering necessary social / community infrastructure requirements (education, health, leisure, open spaces) - proposals which deliver land uses which are known to be, or perceived as being detrimental to health, such as A5 uses or betting shops - developments that are 50 or more units (or less than 50 units at the discretion of the planning authority where the number of units could propose a significant impact on the community and infrastructure) and non-residential developments in excess of 1,000m². 	<p>No Likely Significant Effect</p> <p>This policy addresses the health requirements of development with particular emphasis on air quality and effects to local people and communities. This policy does therefore not allocate land for development rather provide mitigation for health impacts of development and is therefore not likely to pose as a likely significant effect to European Sites.</p>
<p>SP04: Managing Growth</p>	<p>New development within the borough will be directed towards:</p> <ul style="list-style-type: none"> - The site allocations set out in section xxxx - Highly accessible locations along transit corridors <p>The South Brentwood Growth Corridor is the focus for the majority of new housing and employment provision. xxxxxxx</p> <p>Development is required to demonstrate how it will address the policies detailed in these site allocation policies. Development within or in part of the site allocation is required to address the priorities and deliver the identified land uses, infrastructure requirements, and design and delivery principals.</p> <p>The borough's Town Centre of Brentwood will be the focus for major retail development xxxxxxx</p> <p>Any other key growth area strategy points to elaborate on??</p> <p>Development will be required to support the deliver of the necessary new infrastructure to support the growth, in line with policies xxxx</p>	<p>No Likely Significant Effect</p> <p>This is a development management policy that does not identify any exact location, type or quantum of development. As such this policy is not expected to pose as a likely significant effect to the integrity of European Sites that lie within catchment of the Brentwood Borough.</p>

Policy	Description	HRA Implications
SP04: Developer Contributions	<p>Developments will be expected to:</p> <ul style="list-style-type: none"> - Pay community infrastructure level charges required by any charging schedules which are in operations for the borough - Enter in section 106 agreements to provide affordable housing and make provision to mitigate the impacts of the development where necessary or appropriate, having regard to the relevant supplementary planning documents or guidance; and - Submit a financial viability assessment as part of the planning application, where required, which may be subject to an intendent scrutiny by appointed experts, at the applicants cost, where they do not meet the planning policy requirements or do not propose to deliver the required section 106 planning obligations. 	<p>No Likely Significant Effect</p> <p>This policy ensures that developers make either financial contributions or provisions to infrastructure to ensure that development does not impact on operational facilities. This policy is therefore not expected to have an adverse impact on the integrity of European Sites within catchment of Brentwood.</p>
SP05: Construction Management	<p>All major development should sign up to the considerate constructors' scheme, or equivalent. During construction, major development is required to:</p> <ul style="list-style-type: none"> - Comply with the non-road mobile machinery low emissions zone requirements - Minimise levels of noise, vibration, artificial light, odour, air quality, fumes, or dust pollution - Consider the routing, timing and frequency of heavy goods vehicle movements to reduce their impact on vulnerable road users, local amenity and congestion - Use, where available, construction and or freight consolidation centres - Consider the impact of construction on water supply, floor risk and drainage and implement suitable mitigation measures where required. <p>Major development must consider the cumulative impact of other major development occurring in the vicinity on levels of noise, vibration, artificial light, odour, air quality, fumes or dust pollution and plan timings of works, delivery timings and routes and location of equipment accordingly to reduce this cumulative impact.</p> <p>Development is required to employ the highest standards of sustainable construction, including:</p> <ul style="list-style-type: none"> - Sustainable construction methods, such as use of sustainably sourced materials recycled materials - The reuse of demolished material from development site, where practical in order to minimise the transportation of waste and reduce carbon emissions. - The sustainable disposal of material 	<p>No Likely Significant Effect</p> <p>This policy outlines that all development should sign up and adhere to the considerate constructors' scheme this ensures that the highest level of health and safety and environmental standards are met both on site and within the wider area during construction. This includes aspects of noise pollution, air quality and drainage. As such this policy is not expected to pose as a likely significant effect to European Sites and is therefore screened out from further discussion.</p>
SP06: Monitoring	Not yet described	<p>No policy available to asses, however it is considered unlikely that a 'monitoring' policy will have any HRA implications.</p>

Policy	Description	HRA Implications
SP08: Planning and Design for Resilience to Climate Change	All planning applications should give an appropriate consideration to efficient resource management as well as methods for mitigating and adapting to the climate change. New developments and conversion of existing buildings should seek to: <ul style="list-style-type: none"> - reduce transport related carbon emissions through location and the promotion of sustainable modes of transport in line with Policy X; - reduce greenhouse gas emission during construction and operation in line with Policy X, transport related carbon emissions; - clean and efficient use of resources, including land take, energy and water in line with Policy X (Energy, Water, SUD, Density, Transport, Waste Management??); - ensure buildings, infrastructure and construction techniques are designed to adapt to a changing climate and to avoid contributing to its impacts including urban heat island effect in line with Policy X; - provide a safe and secure environment which is resilient against the impacts of extreme weather events in line with Policy X; and - enhance biodiversity and ecological resilience where possible, by means such as Green and Blue Infrastructure or new habitat creation in line with Policy X. 	<p>No Likely Significant Effect</p> <p>This policy describes the Council's aims to ensure that development is appropriately mitigated against climate change. This policy is therefore not considered to pose as a likely significant effect to the integrity of European Sites within catchment of Brentwood Borough.</p>

Policy	Description	HRA Implications
SP09: Future Proofing	<p>In planning and design for resilience, all applications must take into account the following principles of future proofing:</p> <ul style="list-style-type: none"> - well-being, safety and security for residents and/or users in line with Policy X (Managing Heat Risk) X (Air Quality) X (Space Standards) X (HIA); - adaptable and flexible spatial planning and design in conjunction with Policy X; - life cycle duration of infrastructure and buildings, including appropriate maintenance plan for the life of the development in conjunction with Policy X; - potential hazards including fire, pest, flood, and climate change long term stresses in determining design, locations and installations of protection facilities, systems and buildings for the life of the development in line with Policy X; - existing and potential source of pollution, such noise and air, and according mitigation measures in line with Policy X; - increased quality of materials and installation in line with Policy X; - multi-functional Green and Blue Infrastructure in line with the principles of Sustainable Urban Drainage (SUDs) and natural flood management as part of the wider Green and Blue Infrastructure network to deliver multiple benefits in line with Policy X SUD, X GBI, Policy X Access to nature; - provision of class leading digital connectivity infrastructure and other future essential technology in line with Policy X; and - delivery phasing that takes into account demand and supply if and where appropriate. <p>Time horizons for proposed future-proof interventions can vary depending on the size, location and purpose of development but long term time horizons based on objective and realistic assessment should be made clear in the proposal.</p> <p>This policy should be read in conjunction with Policy X (Connecting New Development to Digital Infrastructure), Policy X (Communications), Policy X (Low Emission Vehicles), Policy X (Creating Successful Places), Policy X (Managing Heat Risks), Policy X Greening Intervention, Policy X (Green and Blue Infrastructure)</p>	<p>No Likely Significant Effect</p> <p>This policy encourages sustainable development aspects of this policy criteria include air quality, flood risk, climate change and green infrastructure. It is therefore considered to be of benefit to European sites within catchment of Brentwood and can therefore be screened out from further discussion.</p>

Policy	Description	HRA Implications
<p>POLICY BEXX: Strategic Transport Infrastructure</p>	<p>Maximising the value of Elizabeth Line The Council supports the development of Elizabeth Line, maximising the potential for an overall improvement to Borough rail services, and mitigating environmental and transport impacts as a consequence of the scheme. This would be achieved through improvements to pedestrian and cycle infrastructure and bus services linking both new and existing developments to the train stations, and introduction of parking controls where needed. Development near Brentwood and Shenfield stations will demonstrate how the schemes connect to the surrounding walking, cycling and public transport links to the station. The proposed schemes must offer direct routes, as well as easy, effective orientation and navigation to the stations.</p> <p>Improving multimodal integration and/or capacity at train stations The Council will work with the highways authority, statutory bodies and key stakeholders, including public transport operators, to secure funding for:</p> <ul style="list-style-type: none"> - improving the public realm and circulation as well as achieving multimodal integration around both Brentwood and Shenfield Crossrail stations given the potential increased usage and footfall expected to arise from Crossrail; - improving capacity of West Horndon station and creating associated multimodal interchange through phases to support new residents and employees; - interim bus service(s) connecting the developments sites to West Horndon station; <p>The Council will consider the scope for Park and Ride or Stride schemes where the demand and impacts are assessed within a detailed feasibility study.</p> <p>Delivering mitigations measures to the strategic highway infrastructure The Council will continue to work with the highways authority, statutory bodies and key stakeholders to coordinate and, where appropriate, deliver highway and suitable non-highway mitigations measures. Development close to schools and early years & childcare facilities should facilitate an attractive public realm that is safe for children and encourages walking and cycling to address the impacts of school run traffic.</p>	<p>No Likely Significant Effect</p> <p>This policy does not propose development at Elizabeth Line; rather this policy supports this development requires that public transport links are maximized to their best use. This policy therefore encourages the use of public transport and waling and cycling links into/ out of Brentwood. This policy is therefore not expected to impact on the integrity of European Sites that are located within catchment of the Borough.</p>

Policy	Description	HRA Implications
BEXX: Car-light Development	The Council supports car-light development proposals in appropriate locations that are, or are planned to be, well-connected by public transport and have good accessibility through walking and cycling. Car-light development are acceptable when all of the following are met: <ul style="list-style-type: none"> - where there is safe, easily walkable and cyclable access to the Town Centre or District Shopping Centres or major employment sites; - where there is excellent access to public transport connectivity; - where the car-light status of the development can realistically be enforced by planning condition, planning obligations, on-street parking controls or other means such as car clubs. 	<p>No Likely Significant Effect</p> <p>This is a development management policy identifying where car-light developments may be appropriate. This policy encourages the use of fewer cars within developments. As such this is a positive policy aimed at reducing atmospheric pollution and is therefore unlikely to have significant effects upon the European Sites located within catchment of Brentwood.</p>

Policy	Description	HRA Implications
<p>BEXX: Sustainable Means of Travel and Walkable Streets</p>	<p>Development will be supported where it demonstrates that prioritisation of access to, from, and within a development is by walking, cycling and public transport, and is accessible for all. This is achieved by:</p> <ul style="list-style-type: none"> - linking the development or providing new links that will add to the existing surrounding walking, cycling and public transport networks; - giving priority to pedestrian and cycle movement and public transport networks above the use of the private car so these are the best and safest means of moving around; - improve areas where public transport, pedestrian and cycle movement is difficult or dangerous; - safeguarding existing and proposed routes for walking, cycling, and public transport, from development that would prejudice their continued use and/or development. Funding for high quality physical provision of these routes will be required, both within and adjacent to the proposed developments; <p>Any development requiring a new road or road access should accord with the following:</p> <ul style="list-style-type: none"> - be designed to give priority to the needs and safety of pedestrians and cyclists, to facilitate the change between different transport modes, and make cycling, walking and public transport the obvious choice; - restricts general motor traffic through design where appropriate; - discourage speeding through design; - discourage inappropriate car-based links within the network, but encourages non-car based links; - minimises additional car traffic in the surrounding area; and - provide safe and appropriate access to the adjoining road, pedestrian and cycle networks. 	<p>No Likely Significant Effect</p> <p>This policy ensures that new development within Brentwood is well connected to public transport links. Proposals that are not well connected to existing infrastructure will be rejected on the bases of unsustainable development. As such this policy is not likely to pose as a significant effect to European Sites that are located within catchment to Brentwood Borough. As such, this policy is screened out from further discussion.</p>

Policy	Description	HRA Implications
<p>BEXX: Sustainable Passenger Transport</p>	<p>The Council will facilitate and support sustainable passenger transport services operating in Brentwood to help deliver vision of the Local Plan.</p> <p>Development proposals should protect and enhance existing passenger transport and their capacity.</p> <p>Community facilities, schools, and specialist older persons housing, where reasonable and proportionate, should provide pick up and drop off facilities close to the principal entrance suitable for minibuses, taxis (with appropriate kerbs), and/or ambulances.</p>	<p>No Likely Significant Effect</p> <p>This policy ensures that there are adequate facilities for passenger transport services. It does not in itself provide for new development. As such, this policy is not considered to pose as a likely significant effect to the integrity of European Sites located within the Brentwood Borough. As such this policy is screened out from further discussion.</p>
<p>BEXX: Electric and Low Emission Vehicle</p>	<p>Where it is viable to do so, the Council may seek infrastructure for electric and low emission vehicle at major new developments. This could include, but is not limited to, electric vehicle charging / plug-in points or the infrastructure required to provide this in the future.</p>	<p>No Likely Significant Effect</p> <p>This policy encourages the use of electric or low emission vehicles for all major development. As such, this is a mitigating strategy for air quality control measures. As such this policy is not likely to pose as a likely significant effect to the integrity of European Sites within Brentwood Borough.</p>

Policy	Description	HRA Implications
<p>BEXX: Mitigating the Transport Impact of Development</p>	<p>Developments will only be permitted where they do not have an unacceptable transport impact and/or any significant impacts from the development on the transport network (in terms of capacity and congestion) and on highway safety can be effectively mitigated to an acceptable degree.</p> <p>Therefore, new development will require:</p> <ul style="list-style-type: none"> - sufficient information to be supplied to assess the likely impact of development. This should take the form of Travel Plans, Transport Assessments and/or Statements in accordance with the thresholds and detailed requirements for each land use category set in the latest Essex County Council's Development Management Policies; - reasonable and proportionate financial contributions/mitigation measures where necessary to mitigate the transport impact of the development to an acceptable degree. This could include investment in infrastructure, services or behavioural change measures to encourage the use of sustainable modes of transport. Such measures should be provided to meet the first or early occupation of a site in order to influence travel behaviour from the outset. 	<p>No Likely Significant Effect</p> <p>This policy is also a mitigating strategy designed to improve the efficiency of transport links by encouraging behavioral changes to transport. This policy is therefore not considered to pose as a likely significant effect to the integrity of European Sites and is screened out from further discussion.</p>
<p>BEXX: Parking Standards</p>	<p>The Council will refer developers to the latest Parking Standards adopted by Brentwood Borough Council. Schemes should comply with design standards and provision levels for uses and transport modes specified.</p> <p>In the following circumstances, the parking standards may be flexible to minimise pressure on land and encourage alternative modes of transport:</p> <ul style="list-style-type: none"> - Office developments in urban areas that are well-connected by public transport and have good accessibility through walking and cycling; - Retail and mixed-use development in the Town Centre, District Shopping Centres and Local Centres with access to shared car parks with different facilities/users at different times; - Commuter parking provision at train stations. <p>Proposals which provide below these standards should be supported by evidence detailing the local circumstances that justify deviation from the standard.</p>	<p>No Likely Significant Effect</p> <p>This policy does not allocate land for car parking; rather this policy ensures that abide by the Parking Standards adopted by the Borough. As such this policy is not expected to pose as a likely significant effect to European Sites and is screened out from further discussion.</p>

SP05: Housing
 Growth: Housing
 Growth

Provision is made for 7,392 new residential dwellings (net) to be built in the Borough over the Plan period 2016-2033 at an annual average rate of 462 dwellings per year distributed as follows:

	Net homes	%
Completions 2016/17 & 2017/18	364	5%
Extant permissions (April 2018)	1,000	14%
Permitted development allowance since 1 st April 2018	tbc	tbc
Windfall Allowance (2022/23 to 2032/33)	tbc	tbc
Brownfield Land within Brentwood Urban Area / Settlement Boundary	1,152	tbc%
Greenfield Land within Brentwood Urban Area / Settlement Boundary	95	tbc
Brownfield Land within settlement boundary – Other Locations	580	tbc
Green Belt Land – Edge of Brentwood Urban Area	1,437	tbc%
Green Belt Land – Edge of Ingatestone	218	tbc
Green Belt Land – Larger Villages	169	tbc

No Likely Significant Effect

This policy allocates 7,392 net residential dwellings within the Borough of Brentwood.

In isolation it is considered that there is no realistic linking impact pathway present, however in combination consideration is required to include quantum of residential development to be delivered by neighboring authorities.

Policy	Description			HRA Implications
	Strategic Allocation – Dunton Hills Garden Village	2,500	tbc%	
		1,292	tbc%	
			tbc	
	Total	7,392	100%	
	Sites with a capacity for 10 or more dwellings (major housing sites) allocated for residential development are set out in Policy 7.4 and shown on the Proposals Map.			

Policy	Description	HRA Implications
<p>BEXX: Housing Mix, Types and Tenures</p>	<p>The Council will protect existing housing from redevelopment to other uses. All new development should deliver an inclusive, accessible environment throughout.</p> <p>On residential development proposals of 10 or more (net) additional dwellings the Council will require:</p> <ul style="list-style-type: none"> - an appropriate mix of dwelling types, sizes and tenures to meet the identified housing needs in the Borough as set out in the Strategic Housing Market Assessment or any similar evidence for market and affordable units (such as the Council’s Housing Strategy), to provide choice, and contribute towards the creation of sustainable, balanced and inclusive communities; and - each dwelling to be constructed to meet requirement M4(2) of the Building Regulations 2015 (accessible or adaptable dwellings), or subsequent government standard. <p>On developments of 20 or more (net) dwellings the Council will require all of the above, and:</p> <ul style="list-style-type: none"> - a minimum of 5% of new affordable dwellings should be built to meet requirement M4(3) of the Building Regulations 2015 (wheelchair user dwellings), or subsequent government standard. <p>On development sites of 500 or more dwellings the Council will require all of the above, and:</p> <ul style="list-style-type: none"> - a minimum of 5% self build homes which can include custom housebuilding; and - provision for Specialist Accommodation taking account of local housing need in accordance with the criteria set out in Policy X: Specialist Accommodation. <p>Where a development site has been divided into parts, or is being delivered in phases, the area to be used for determining whether this policy applies will be the whole original site.</p> <p>Where an applicant considers that it is not feasible or viable to meet the requirements as set out above the Council will expect this to be demonstrated with robust evidence and may negotiate a proportionate housing mix which is achievable, account will be taken of the nature, constraints, character and context of the site and development viability.</p> <p>Conditions may be used to ensure particular housing types provided, remain available in perpetuity and by tenure.</p>	<p>No Likely Significant Effect</p> <p>This policy safeguards current residential dwellings from re-development. It is a development management policy relating to housing mix, tenure and types. As such this policy is not expected to result in a net increase in residential development nor does this policy allocated sites for re-development. As such, this policy is no expected to pose as a likely significant effect to European Sites and can be screened out from further discussion.</p>

Policy	Description	HRA Implications
7.3: Residential Density	<p>Proposals for new residential development should take a design led approach to density which ensures schemes are sympathetic to local character and make efficient use of land.</p> <p>Residential densities will be expected to be 35 dwellings per hectare net or higher unless the special character of the surrounding area suggests that such densities would be inappropriate; or where other site constraints make such densities unachievable.</p> <p>Higher densities, generally above 65 dwellings per hectare net, will be expected in Town Centre, District Shopping Centres, and Village Service Centres or other locations with good public transport accessibility, subject to Policy 10.4.</p>	<p>No Likely Significant Effect</p> <p>This policy is related to housing density and design within town centers and within more rural settings. This policy does not provide for any new development, but is a development management policy and is therefore not considered to pose as a likely significant effect to the European Sites that are located within catchment to Brentwood. As such, this policy is screened out from further discussion.</p>
7.7: Specialist Accommodation	<p>The Council will support proposals which contribute to the delivery of Specialist Accommodation, provided that the development:</p> <ul style="list-style-type: none"> - meets demonstratable established local community need; - is readily accessible to public transport, shops, local services, community facilities and social networks and, where appropriate, employment and day centres; - would not result in the over concentration of any one type of accommodation; - where appropriate, provides suitable landscaping and amenity space; and - where appropriate, is in accordance with Policy ? New Development in the Green Belt. <p>Subject to viability, where accommodation falls within use Class C3 an appropriate proportion of affordable housing in accordance with policy ?: Affordable Housing will be required with the mix of tenures negotiated by the Council.</p> <p>A condition may be imposed restricting occupation to persons requiring specialist accommodation where deemed necessary.</p>	<p>No Likely Significant Effect</p> <p>This policy supports the development of specialist accommodation; however, this is a development management policy that does not in itself identify any quantum or location of development. As such, this policy is not expected to pose as likely significant effects to the integrity of European Sites.</p>

Policy	Description	HRA Implications
<p>BEXX: Affordable Housing</p>	<p>Over the Plan period, the Council will seek to deliver 30% of all net additional dwellings as affordable units with 86% Affordable/Social Rent and 14% as other forms of affordable housing⁷².</p> <p>The Council will require the provision of 35% of the total number of residential units to be provided and maintained as affordable housing within all new residential development sites on proposals of 11 or more (net) dwellings, with a tenure split as above.</p> <p>In considering the suitability of affordable housing, the Council will require that:</p> <ul style="list-style-type: none"> - the affordable housing be designed in such a way as to be seamlessly integrated to that of market housing elements of a scheme (in terms of appearance, build quality and materials) and distributed throughout the development so as to avoid the over concentration in one area; and - the type, mix, size and cost of affordable homes will meet the identified housing need as reported by the Council's most up-to-date Strategic Housing Market Assessment and Housing Strategy. <p>In seeking affordable housing provision the Council will have regard to scheme viability, only where robust viability evidence demonstrates that the full amount of affordable housing cannot be delivered the Council will negotiate a level of on-site affordable housing that can be delivered taking into account the mix of unit size, type and tenure and any grant subsidy received.</p> <p>The Council will only accept a financial contribution in lieu of on-site provision where it can be satisfactorily demonstrated that on-site provision is neither feasible nor viable.</p> <p>Where a site has been sub-divided or is not being developed to its full potential so as to fall under the affordable housing threshold the Council will seek a level of affordable housing to reflect the provision that would have been achieved on the site as a whole had it come forward as a single scheme for the allocated or identified site.</p> <p>Planning obligations will be used to ensure that the affordable housing will remain at an affordable price for future eligible households, or for the subsidy to be recycled to alternative affordable housing provision.</p> <p>The requirement to provide affordable housing will apply to all residential development falling under Use Class C3 with the exception of Gypsy & Traveller Pitches or Travelling Showman Plots.</p>	<p>No Likely Significant Effect</p> <p>This is a development management policy that describes the proportion of affordable housing required from development within Brentwood. As such, this policy does not allocate housing within Brentwood and is therefore not considered to pose as a likely significant effect to the integrity of European Sites located within catchment of Brentwood.</p>

⁷² This includes starter homes, intermediate homes and shared ownership and all other forms of affordable housing as described by national guidance or legislation

Policy	Description	HRA Implications
<p>Policy X: Rural Exception Sites</p>	<p>Planning Permission may be granted for small scale affordable housing schemes, which would not otherwise be released for housing, in order to meet local rural housing need where:</p> <ul style="list-style-type: none"> - the site is within or adjacent to a settlement; - the site is accessible to a range of local services, such as shops, primary schools, healthcare and public transport; - the Council is satisfied that there is clear evidence, supplied by the applicant, of local need for the number and type of housing proposed within the village settlement that cannot be met another way; - homes provided are 100% affordable unless it can be demonstrated that a small element of market housing is necessary to deliver a significant amount of affordable housing; - the housing is provided for people with a strong and demonstrable local connection; - the appropriate legal agreements are entered into for the affordable housing with the Council, to ensure homes remain affordable and exclusively for local need in perpetuity, and that the necessary management of the scheme can be permanently secured; and - the development is small-scale, does not exceed that required to meet current need, respects the character of the settlement and surrounding landscape and would not cause significant harm to the purposes of the Green Belt <p>A person with a strong local connection should meet the following criteria:</p> <ul style="list-style-type: none"> - existing local residents requiring separate accommodation; - close relatives of existing local residents who have a demonstrable need to either support or be supported by them; or - people whose work provides an important and necessary local service. <p>In the context of this policy “local” means a parish or ward, or in exceptional circumstances, adjacent parishes or wards.</p>	<p>No Likely Significant Effect</p> <p>This is a development management policy relating to development of housing within rural areas in order to meet rural housing requirements. However, this policy does not in itself provide for any location or quantum of development. This policy is therefore not considered to pose as a likely significant effect to European Sites that are within catchment of Brentwood Borough.</p>

Policy	Description	HRA Implications
<p>X: Residential Space Standards</p>	<p>All residential development shall comply with the following:</p> <p>Internal Residential Space All new build housing will achieve appropriate internal space through compliance with the nationally-described space standard.</p> <p>External Residential Space New residential units will be expected to have direct access to an area of private and/or communal amenity space. The form of amenity space will be dependent on the form of housing and could be provided in a variety of ways, such as a private garden, roof garden, communal garden, courtyard balcony, or ground-level patio with defensible space from public access. In providing appropriate amenity space, development should:</p> <ul style="list-style-type: none"> - consider the location and context of the development, including the character of the surrounding area; - take into account the orientation of the amenity space in relation to the sun at different times of year; - address issues of overlooking and enclosure, which may otherwise impact detrimentally on the proposed dwelling and any neighbouring dwellings; and - design the amenity space to be of a shape, size and location to allow effective and practical use of and level access to the space by residents. <p>Housing Quality Consideration should be given to how smart infrastructure can be integrated into the communal areas, including waste disposal points, shared batteries for renewable energy sources etc. All new-build residential development to incorporate sustainable design features to reduce carbon dioxide and nitrogen dioxide emissions, and the use of natural resources, in line with Policy 9.X Sustainable Construction And Efficient Resources Management; Policy 9.X Renewable And Low Carbon Energy Schemes, Policy X.X SUDS These standards are applicable for both private and affordable housing in Brentwood. Compliance with the criteria should be demonstrated in the Design and Access Statement submitted with the planning application.</p>	<p>No Likely Significant Effect</p> <p>This is a development management policy relating to current building standards. This includes aspects of internal space and amenity space. This policy does not therefore identify any location, type or quantum of development to be provided within Brentwood. It is therefore no expected that this policy would pose as a likely significant effect to the integrity of European Sites that are located within catchment of Brentwood Borough.</p>

Policy	Description	HRA Implications								
BEXX: Provision for Gypsies and Travellers	<p>In order to meet identified need, a total of 13 permanent pitches for Gypsies and Travellers as defined by national planning policy for the period 2016-2033 will be provided.</p> <table border="1"> <thead> <tr> <th>Gypsy and Traveller Accommodation</th> <th>Net new pitches</th> </tr> </thead> <tbody> <tr> <td>Policy BEXX Regularising suitable existing traveller sites</td> <td>7</td> </tr> <tr> <td>Policy XX Dunton Hills Garden Village</td> <td>6</td> </tr> <tr> <td>Total</td> <td>13</td> </tr> </tbody> </table>	Gypsy and Traveller Accommodation	Net new pitches	Policy BEXX Regularising suitable existing traveller sites	7	Policy XX Dunton Hills Garden Village	6	Total	13	<p>No Likely Significant Effect</p> <p>This policy allocates a total of 13 sites for Gypsies and Travellers. Whilst this is a small quantum of development which in isolation is unlikely to impact on a European site, in combination considerations are required.</p>
Gypsy and Traveller Accommodation	Net new pitches									
Policy BEXX Regularising suitable existing traveller sites	7									
Policy XX Dunton Hills Garden Village	6									
Total	13									
BEXX: Regularising Suitable Existing Traveller Sites	<p>Planning permission will be granted on the following sites for permanent gypsy and traveller accommodation as shown on the Policies Map and listed below:</p> <p>Site Ref XX Site Address: Oaktree Farm (Greenacres), Chelmsford Road No of Pitches: 6 Proposals for development at this site should comply with the following site-specific requirements:</p> <ul style="list-style-type: none"> • tbc <p style="text-align: center;">[Insert map of site]</p> <p>Site Ref XX Site Address: Hunters Green, Albyns Lane, Navestock No of Pitches: 1 Proposals for development at this site should comply with the following site-specific requirements: tbc</p>	<p>No Likely Significant Effect</p> <p>This policy allocates two new sites for Gypsies and Travellers (7 pitches). Whilst this is a small quantum of development which in isolation is unlikely to impact on a European site, in combination considerations is required.</p>								

Policy	Description	HRA Implications
<p>BEXX: Proposals for Gypsies, Travellers and Travelling Showpeople on Unallocated Land</p>	<p>Planning permission for Gypsy and Traveler caravan sites and sites for Travelling Showpeople (as defined in the Governments Planning Policy for Travellers) on unallocated land outside development frameworks, and outside the Green Belt, will only be granted in accordance with the following criteria:</p> <ul style="list-style-type: none"> - The site is well related to existing communities and accessible to local services and facilities, such as shops, primary and secondary schools, healthcare and public transport; and - The location would not result in unacceptable living conditions for its occupants and adhere to the Designing Gypsy and Traveller Sites Good Practice Guide regarding Density and Spacing of caravans and trailers standards; and - The site is serviced by a suitable access road; and - essential services (water, electricity and foul drainage) are available on site or can be made available on site; and - there is no significant adverse impact on the intrinsic character and beauty of the countryside; and - the site would not lead to the loss of, or adverse impact on, important historic and natural environment assets; and - there is no significant risk of land contamination or unacceptable risk of flooding; and - there is no significant adverse impact on the amenity of nearby residents; and - plots for Travelling Showpeople should also be of sufficient size to enable the storage, repair and maintenance of equipment. <p>Gypsy and Traveller sites are inappropriate development in the Green Belt. Any proposals in the Green Belt would have to demonstrate they comply with National and Local Policy regarding development in the Green Belt. If, through the application of such Policy, provision of a Gypsy and Traveller site in the Green Belt is considered acceptable in principle, the proposed development is required to comply with the criteria set out within this policy.</p>	<p>No Likely Significant Effect</p> <p>This is a development management policy relating to proposals on unallocated land. It does not in itself identify any quantum or location of development. There are no linking impact pathways present.</p>

Policy	Description	HRA Implications																																																
<p>BEXX: Safeguarding Permitted Sites</p>	<p>The existing gypsy and traveller sites listed below, and as shown on the Policies Map, will be safeguarded from alternative development, unless the site is no longer required to meet any identified traveller need across the Borough.</p> <p>Any other site that is subsequently granted a permanent planning permission for gypsy and traveller use shall be safeguarded in accordance with this policy.</p> <table border="1"> <thead> <tr> <th>Site ref.</th> <th>Location</th> <th>No. of pitches</th> </tr> </thead> <tbody> <tr> <td>X</td> <td>Clementines Farm, Murthering Lane, Navestock</td> <td>1</td> </tr> <tr> <td>X</td> <td>Deep Dell Park (Willow Farm), Ingatestone</td> <td>6</td> </tr> <tr> <td>X</td> <td>Lilliputs, Blackmore</td> <td>2</td> </tr> <tr> <td>X</td> <td>Meadow View, Blackmore</td> <td>2/3</td> </tr> <tr> <td>X</td> <td>Pond End, Kelvedon Hatch</td> <td>1/2</td> </tr> <tr> <td>X</td> <td>Ponderosa, Kelvedon Hatch</td> <td>1</td> </tr> <tr> <td>X</td> <td>Poplar Farm, Ingatestone</td> <td>2/3</td> </tr> <tr> <td>X</td> <td>Roman Triangle, Mountnessing</td> <td>5</td> </tr> <tr> <td>X</td> <td>Rye Etch, Navestock</td> <td>3</td> </tr> <tr> <td>X</td> <td>The Willows', Kelvedon Hatch</td> <td>3</td> </tr> <tr> <td>X</td> <td>Tree Tops, Navestock</td> <td>3</td> </tr> <tr> <td>X</td> <td>Warren Lane, Doddinghurst</td> <td>1</td> </tr> <tr> <td>X</td> <td>Wenlock Meadow</td> <td>1</td> </tr> <tr> <td>X</td> <td>Hope Farm, Navestock</td> <td>3</td> </tr> <tr> <td>X</td> <td>Orchard View, Navestock</td> <td>4</td> </tr> </tbody> </table> <p>Of the sites listed above applications for the removal of temporary personal planning permissions for gypsy and traveller sites to permanent planning permissions for gypsy and traveller sites will be supported by the Local Planning Authority provided the applicant and occupant meet the definition of a Gypsy, Traveller or Travelling Showperson as defined in national planning policy.</p>	Site ref.	Location	No. of pitches	X	Clementines Farm, Murthering Lane, Navestock	1	X	Deep Dell Park (Willow Farm), Ingatestone	6	X	Lilliputs, Blackmore	2	X	Meadow View, Blackmore	2/3	X	Pond End, Kelvedon Hatch	1/2	X	Ponderosa, Kelvedon Hatch	1	X	Poplar Farm, Ingatestone	2/3	X	Roman Triangle, Mountnessing	5	X	Rye Etch, Navestock	3	X	The Willows', Kelvedon Hatch	3	X	Tree Tops, Navestock	3	X	Warren Lane, Doddinghurst	1	X	Wenlock Meadow	1	X	Hope Farm, Navestock	3	X	Orchard View, Navestock	4	<p>No Likely Significant Effect</p> <p>This policy does not allocated new pitches; rather this policy ensures that existing gypsy and traveller sites are safeguarded from development. As such, this policy is not expected to pose as a likely significant effect to European Sites.</p>
Site ref.	Location	No. of pitches																																																
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Policy	Description	HRA Implications
X: Sub-division of Pitches or Plots	<p>The Local Planning Authority will consider proposals for the sub-division of authorised Gypsy, Traveller and Travelling Showpeople sites, on a case by case basis and provided that the following criteria are met:</p> <ul style="list-style-type: none"> - the living environment of residents on the proposed site and neighbouring land is protected; and - sites are of a suitable size to enable the creation of additional pitches or plots; and - the sub-division of Gypsy and Traveller sites do not result in a total of more than 10 pitches on a site; and - there is no significant loss of soft and hard landscaping and amenity provision within the existing site, particularly where conditioned by a previous consent; and - there is no significant adverse impact on the intrinsic character and beauty of the countryside and; there is no adverse impact in terms of highways access and vehicle movement. <p>It will be necessary for the application to demonstrate the need for the additional provision in relation to the requirement of Policy XX, the lack of alternative provision and specific circumstances of the applicant.</p>	<p>No Likely Significant Effect</p> <p>This policy provides requirements to the sub-division of Gypsy, Traveller and Travelling Showpeople sites. Listed within the requirements are aspects relating to loss of soft and hard landscapes and the impacts on the intrinsic beauty of the countryside. This policy does not provide for any increase in development, but rather provides development management guidance relating to sub-division of pitches. It is therefore considered unlikely that this policy will have an impact on European Sites.</p>

Policy	Description	HRA Implications
BEXX: Sustainable Construction and Resource Efficiency	The Council will require all development proposals, including the conversion or re-use of existing buildings, to: <ul style="list-style-type: none"> - maximise the principles of energy conservation and efficiency in the design, massing, siting, orientation, layout, construction method and use of materials; - submit details of measures that increase resilience to the threat of climate change, including but not limited to summertime overheating; - demonstrates how the water conservation measures were incorporated in the proposals; - incorporate suitable Sustainable Urban Drainage Systems (SuDs), such as green roofs and rainwater attenuation measures; - incorporate the reduction in the use of mineral resources, including an increase in the re-use of aggregate; - include commercial and domestic scale renewable energy and decentralised energy as part of new development. 	<p>No Likely Significant Effect</p> <p>This policy encourages sustainable development within Brentwood Borough. Aspects of sustainability that are to be incorporated at the design stage of development include SuDS, green roofs and rainwater attenuation measures. This policy is therefore not likely to have an impact on the integrity of European Sites that are located within catchment of Brentwood Borough.</p>

BEXX: Carbon Reduction, Renewable Energy and Water Efficiency

Proposals for renewable, low carbon or decentralised energy schemes will be supported provided they can demonstrate that they will not result in adverse impacts, including cumulative and visual impacts which cannot be satisfactorily addressed.

Development should meet the following minimum standards of sustainable construction and carbon reduction:

New Residential Development:

Year	Minimum sustainable construction standards	On-site carbon reduction	Water efficiency
Up to 2020	In line with Part L Building Regulations	At least a 10% reduction in carbon dioxide emissions above the requirements of Part L Building Regulations	110 litres per person per day limit Major development are expected to provide more substantial water management measures, such as rain/grey

No Likely Significant Effect

This positive policy sets out the requirement for renewable and low carbon energy schemes, water efficiency measures and the requirement for developer contributions if these provisions cannot be provided on site. It is therefore considered unlikely that this policy will lead to adverse impacts upon the integrity of European Sites that are within catchment of Brentwood.

			water harvesting.		
2020 onwards	In line with Part L Building Regulations	In line with national nearly-zero carbon policy. If national nearly-zero carbon policy is unavailable, the previous target applies. However the minimum improvement over the Building Regulations baseline may be increased to reflect the reduction in costs of more efficient construction methods.	110 litres per person per day limit Major developments are expected to provide more substantial water management measures, such as rain/grey water harvesting.		
New Non-residential Development					

Year	Minimum BREEM rating*	On-site carbon reduction	Water efficiency
Up to 2020	BREEAM 'Very Good' rating to be achieved in the following categories: <ul style="list-style-type: none"> • Man 02 • Ene 04 • Mat 03 • Wst 01 • Wst 03 LE 03	At least a 10% reduction in carbon dioxide emissions above the requirements of Part L Building Regulations	BREEAM 'Very Good' rating to be achieved in category Wat 01 Major developments are expected to provide more substantial water management measures, such as grey water harvesting.
2020 onwards	BREEAM 'Excellent' rating to be achieved in the following categories:	In line with national nearly-zero carbon policy	BREEAM 'Excellent' rating to be achieved in category Wat 01

	<ul style="list-style-type: none"> • Man 02 • Ene 04 • Mat 03 • Wst 01 • Wst 03 <p>LE 03</p>	<p>If national nearly-zero carbon policy is unavailable, the 2016 - 2020 target applies. However the minimum improvement over the Building Regulations baseline may be increased to reflect the reduction in costs of more efficient construction methods.</p>	<p>Major developments are expected to provide more substantial water management measures, such as grey water harvesting.</p>
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*: The version of BREEAM that a building must be assessed under should be the latest BREEAM scheme and not be based on scheme versions that have been registered under at the pre-planning stages of a project. Other construction standards, such as LEEDs or

Passivhaus, will be supported provided that they are broadly at least in line with the standards set out above.

Application of major development, where feasible, will be required to provide a minimum of 10% of the predicted energy needs of the development from renewable energy

Application of major development, including redevelopment of existing floor space, should be accompanied by a Sustainability Statement (see figure X: Areas to be covered in the Sustainability Statement) as part of the Design and Access Statement submitted with their planning application, outlining their approach to the following issues:

- adaptation to climate change;
- carbon reduction;
- water management;
- site waste management; and
- use of materials.

Where it is not possible to meet these standards, applicants must demonstrate compelling reasons and provide evidence, as to why achieving the sustainability standards outlined above for residential and non-residential developments would not be technically feasible or economically viable;

Where on-site provision of renewable technologies is not appropriate, or where it is clearly demonstrated that the above target cannot be fully achieved on-site, any shortfall should be provided via:

- allowable solutions contributions' via section 106 or CIL. These funds will then be used for energy efficiency and energy generation initiatives or other measure(s) required to offset the environmental impact of the development;
- off-site provided that an alternative proposal is identified and delivery is certain.

It is noted that legislation, policy and technology is continually changing in this area; therefore the Council will review and update this Policy as and when required.

<p>BEXX: Establishing Low Carbon and Renewable Energy Infrastructure Network</p>	<p>Stand-alone renewable energy infrastructure Community-led initiatives for renewable and low carbon energy, including developments outside areas identified in local plans or other strategic policies that are being taken forward through neighbourhood planning, will be encouraged, subject to the acceptability of their wider impacts including on the green belt.</p> <p>Decentralised energy infrastructure The Council will work with developers and energy providers to seek opportunities to expand Brentwood’s decentralised energy infrastructure. Major new development will be expected to incorporate decentralised energy infrastructure in line with the following hierarchy:</p> <ul style="list-style-type: none"> - Where there is an existing heat network, new development will be expected to connect to it; - Where there is no existing heat network, new development will be expected to deliver an onsite heat network, unless demonstrated that this would render the development unviable; - Where a developer is unable to deliver the heat network, they need to demonstrate that they have worked in detail with third parties (commercially or community) to fully assess the opportunity; - Where a heat network opportunity is not currently viable and no third party is interested in its delivery, the development should be designed to facilitate future connection to a heat network unless it can be demonstrated that a lower carbon alternative has been put in place. <p>New development will be expected to demonstrate that the heating and cooling system have been selected according to the following heat hierarchy:</p> <ul style="list-style-type: none"> - Connection to existing CHP/CCHP distribution network; - Site-wide renewable CHP/CCHP; - Site-wide gas-fired CHP/CCHP; - Site-wide renewable community heating/cooling; - Site-wide gas-fired community heating/cooling; - Individual building renewable heating. <p>Developers of strategic development that could play a key role in establishing a decentralised energy network, especially within the South Brentwood Growth Corridor, should engage at an early stage with the Council, stakeholders and relevant energy companies to establish the future energy requirements and infrastructure arising from large-scale development proposals and clusters of significant new development. Applicants of these sites will prepare energy masterplans which establish the most effective energy strategy and supply options.</p> <p>Building scale technologies</p>	<p>No Likely Significant Effect</p> <p>This policy describes criteria for establishing energy infrastructure within Brentwood. It does not identify any location, type or extent of development. The Council is keen to ensure that such infrastructure is of renewable energy or low-carbon. Furthermore, the impacts of such proposals are to involve the local community and the impacts of green belt land. This policy is therefore not considered to pose as a likely significant effect to the integrity of European Sites that lie within catchment of the Brentwood Borough.</p>
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Policy	Description	HRA Implications
	<p>Innovative approaches to the installation and/or construction of community and individually owned energy generation facilities or low carbon homes which demonstrate sustainable use of resources and high energy efficiency levels will be supported.</p>	
<p>BEXX: Assessing Energy Infrastructure</p>	<p>Proposals for development involving the provision of individual and community scale energy facilities from renewable and/or low carbon sources, will be supported, subject to the acceptability of their wider impacts. As part of such proposals, the following should be demonstrated:</p> <ul style="list-style-type: none"> - the siting and scale of the proposed development is appropriate to its setting and position in the wider landscape; - the proposed development does not create an unacceptable impact on the local amenities, the environment, the historic environment, the setting of a heritage asset, or a feature of natural or biodiversity importance. These considerations will include air quality, as well as noise issues associated with certain renewable and low carbon technologies; - any impacts identified have been minimised as far as possible; - where any localised adverse environmental effects remain, these are outweighed by the wider environmental, economic or social benefits of the scheme; - renewable and low carbon energy development proposals located within the Green Belt will need to demonstrate very special circumstances, and ensure that adverse impacts are addressed satisfactorily (including cumulative landscape and visual impacts). 	<p>No Likely Significant Effect</p> <p>This policy provides development management criteria for the development of energy infrastructure within the Brentwood Borough. These include impacts relating to noise, environment, biodiversity and air quality. This policy is therefore not considered to pose as a likely significant effect to the integrity of European Sites. As such, this policy can be screened out from further discussion.</p>
<p>BEXX: Improving Energy Efficiency in Existing Dwellings</p>	<p>To support the transition to a low carbon future, and to tackle issues of rising energy costs, applications for extensions to existing dwellings and/or the conversion of ancillary residential floorspace to living accommodation should be accompanied by cost-effective improvements to the energy efficiency of the existing dwelling. The requirements of this policy will apply where the following measures have not already been implemented:</p> <ul style="list-style-type: none"> - cavity wall and/or loft insulation at least to the standards stipulated by Building Regulations; - heating controls upgrade; - E, F and G rated boilers replacement with an A-rated condensing boiler; and - draught proofing around external doors, windows and un-used chimney. 	<p>No Likely Significant Effect</p> <p>This policy describes the energy efficiency requirements of existing residential developments within Brentwood. This policy does not therefore provide site allocations for development and is unlikely to pose as a likely significant effect to the integrity of the European Sites that are within catchment of Brentwood Borough.</p>

Policy	Description	HRA Implications
<p>BEXX: Managing Heat Risk</p>	<p>Development proposals should minimise internal heat gain and the risks of overheating through design, layout, orientation and materials.</p> <p>Major development proposals should demonstrate how they will reduce the potential for overheating and reliance on air conditioning systems by:</p> <ul style="list-style-type: none"> - minimising internal heat generation through energy efficient design; - reducing the amount of heat entering a building through orientation, shading, albedo, fenestration, insulation and the provision of green roofs and walls; - managing the heat within the building through exposed internal thermal mass and high ceilings; - providing passive ventilation; - providing mechanical ventilation; and - providing active cooling systems. 	<p>No Likely Significant Effect</p> <p>This policy describes a set of criteria for development to manage heat risks. This policy is therefore mitigating and is unlikely to pose have adverse impacts on the integrity of European Sites. As such, this policy can be screened out from further discussion.</p>

Policy	Description	HRA Implications
<p>X: Sustainable Drainage</p>	<p>All developments should incorporate appropriate Sustainable Drainage Systems (SuDS) for the disposal of surface water, in order to avoid any increase in flood risk or adverse impact on water quality. Applications must meet the following requirements: Quantity On brownfield developments SuDS features will be required to achieve a reduced run-off rate Sites over 0.1 hectares in Flood Zone 1 will be required to submit a drainage impact assessment. Larger sites over 1 hectare in Zone 1 or all schemes in Flood Zone 2 and 3 must be accompanied by a Flood Risk Assessment (FRA). Quality The design must follow an index based approach when managing water quality. Implementation in line with Chapter 26 of the updated CIRIA SuDS Manual is required. Source control techniques such as green roofs, permeable paving and swales should be used so that rainfall runoff in events up to 5mm does not leave the site. Amenity And Biodiversity SuDS should be sensitively designed and located to promote improved biodiversity, water use efficiency, river water quality, enhanced landscape and good quality spaces that benefit public amenities in the area. Redeveloped brownfield sites should disconnect any surface water drainage from the foul network. The preferred hierarchy of managing surface water drainage from any development is through infiltration measures, secondly attenuation and discharge to watercourses, and if these cannot be met, through discharge to surface water only sewers. When discharging surface water to a public sewer, developers will be required to provide evidence that capacity exists in the public sewerage network to serve their development.</p>	<p>No Likely Significant Effect</p> <p>This development management policy requiring that sustainable drainage is incorporated at the design stage of development proposals. It is therefore unlikely that this policy will pose as a likely significant effect to the integrity of European Sites. As such, this policy is screened out from further discussion.</p>

Policy	Description	HRA Implications
<p>X: Communications Infrastructure</p>	<p>The Council will support investment in high quality communications infrastructure and superfast broadband, including community based networks, particularly where alternative technologies need to be used in rural areas of the Borough.</p> <p>Applications for new or the expansion of existing communications infrastructure (including telecommunications masts, equipment and associated development, and superfast broadband) are supported subject to the following criteria:</p> <ul style="list-style-type: none"> - evidence is provided to demonstrate, to the Council's satisfaction, that the possibility of mast or site sharing has been fully explored and no suitable alternative sites are available in the locality including the erection of antennae on existing buildings or other suitable structures; - evidence is provided to confirm that the proposals conform to the latest national/international guidelines on radiation protection and would cause no harm to highway safety; - evidence is provided to confirm that the proposals would cause no harm to highway safety; - the proposal has sympathetic design and camouflage, having regard to other policies in the Local Plan; - the proposal has been designed to minimise disruption should the need for maintenance, adaption or future upgrades arise; - will not cause significant and irremediable interference with other electrical equipment, air traffic services or instrumentation operated in the national interest; and - the proposal conforms to the latest International Commission on Non-Ionising Radiation Protection (ICNIRP) guidelines, taking account of the cumulative impact of all operators equipment located on the mast/site where appropriate (ie. prevent location to sensitive community uses, including schools). 	<p>No Likely Significant Effect</p> <p>This policy is related to communication infrastructure and ensuring the appropriate level of broadband is available to all residents within Brentwood Borough. Suitable communications infrastructure has the potential to reduce the need to travel and thus reduce atmospheric pollution contributions. This policy is therefore no expected to have likely significant impact to the European Sites located within catchment of the Brentwood Borough. As such, this policy is screened out from further discussion.</p>

<p>X: Connecting New Developments to Digital Infrastructure</p>	<p>To support Brentwood’s economic growth and productivity now and in the future, development proposals should:</p> <ul style="list-style-type: none"> - provision of up to date communications infrastructure should be designed and installed as an integral part of development proposals. As a minimum, all new developments must be served by the fastest available broadband connection, installed on an open access basis. This includes installation of appropriate cabling within dwelling or business units as well as a fully enabled connection of the developed areas to the full main telecommunications network; - ensure that sufficient ducting space for future digital connectivity infrastructure (such as small cell antenna and ducts for cables, that support fixed and mobile connectivity and therefore underpins smart technologies) is provided where appropriate; - support the effective use of the public realm, such as street furniture and bins, to accommodate well-designed and located mobile digital infrastructure. <p>When installing new and improving existing digital communication infrastructure in new development, proposals should:</p> <ul style="list-style-type: none"> - identify and plan for the telecommunications network demand and infrastructure needs from first occupation; - include provision for connection to broadband and mobile phone coverage across the site on major developments; - the location and route of new utility services in the vicinity of the highway network or proposed new highway network should engage with the Highway Authority and take into account the Highway Authority’s land requirements so as to not impede or add to the cost of the highway mitigation schemes; - ensure the scale, form and massing of the new development does not cause unavoidable interference with existing communications infrastructure in the vicinity. If so, opportunities to mitigate such impact through appropriate design modifications should be progressed 	<p>No Likely Significant Effect</p> <p>This policy describes that all new development within Brentwood must provide the appropriate level of digital infrastructure. This policy does not allocated sites for service development. As such, this policy is not considered to pose as a likely significant effect to the integrity of European Sites and is therefore screened out from further discussion.</p>
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Policy	Description	HRA Implications
	<p>including measures for resiting, re-provision or enhancement of any relevant communications infrastructure within the new development;</p> <ul style="list-style-type: none"> - demonstrate that the siting and design of the installation would not have a detrimental impact upon the visual and residential amenity of neighbouring occupiers, the host building (where relevant), and the appearance and character of the area; - seek opportunities to share existing masts or sites with other providers; - all digital communication infrastructure should be capable of responding to changes in technology requirements over the period of the development. <p>Where applicants can demonstrate, through consultation with broadband infrastructure providers, that superfast broadband would not be possible, practical or economically viable:</p> <ul style="list-style-type: none"> - the developer will ensure that broadband service is made available via an alternative technology provider, such as fixed wireless or radio broadband; and - ducting to all premises that can be accessed by broadband providers in the future, to enable greater access in the future. Or: <p>The Council will seek developer contribution towards off-site works to enable those properties access to superfast broadband, either via fibre optic cable or wireless technology in the future in line with Policy X.</p>	

<p>SP16: Creating Successful Places</p>	<p>Proposals that meet high design standards to deliver safe, inclusive, attractive and accessible places will be supported. They should:</p> <ul style="list-style-type: none"> - provide a comprehensive design approach that deliver high quality, safe, attractive, inclusive, durable and healthy places to live and work in; - deliver buildings, places and spaces that can adapt to changing social technological, economic and environmental conditions; - incorporate energy efficient design and sustainable construction techniques, whilst ensuring that the aesthetic implications of green technology are appropriate to the context; - achieves the successful integration of buildings, the routes and spaces between buildings, significant trees, historic boundaries, landmarks, views, topography, landscape, conservation areas and their setting; - demonstrate a holistic approach to the design of the public realm, active frontages open space and landscaped area as an integral part of development proposals to provide attractive places that improve people’s health and sense of vitality as well as to support improvements to the biodiversity, the micro climate and air pollution; - create permeable, accessible and multifunctional streets and places that promotes active lifestyle and integrates different modes of transport, parking and servicing; - ensure public and private amenity spaces of both existing and future development are inclusive, usable, safe and enjoyable; these include indoor and outdoor space, outlook, natural lighting, ventilation, matters of privacy, overlooking; - integrate a mix of building typologies that meet the diverse needs of people in the borough and reduce the need to travel - meet the principles of inclusive design and facilitate an inclusive environment for people of all abilities and age, ethnicity, gender, economic circumstances, and faith; 	<p>No Likely Significant Effect</p> <p>A development management policy relating to creating successful places. This policy is not expected to pose as a likely significant effect to European Sites and can therefore be screened out from further discussion.</p>
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Policy	Description	HRA Implications
	<ul style="list-style-type: none"> - be designed to minimise criminal activities and improve community safety; <p>In addition, proposals should reflect the requirements of Brentwood boroughs Masterplan requirements where applicable.</p>	
<p>BEXX: Responding to Context</p>	<p>Successful design is founded upon an understanding and respect for an area’s unique built, natural and cultural context. Development will be supported where it is demonstrated that it responds positively to its context and has drawn inspiration from the key characteristics of its surroundings.</p> <p>The Council will require applicants to demonstrate how proposals:</p> <ul style="list-style-type: none"> - identify and respond positively to existing features of natural, historic or local importance on and close to the proposed development site; - use appropriate local characteristics to inform the use, layout, massing, scale, detailing, materials, location of entrances and landscape design of new development; - enhance, reinforce or improve the quality and appearance of the surrounding area and the way it functions; and - be well connected to, and integrated with, the immediate locality and wider area. 	<p>No Likely Significant Effect</p> <p>This policy is related to development and building design. It is therefore not consider to pose as a likely significant effect to the integrity of European Sites located within catchment of Brentwood.</p>
<p>SP0X: Permeable and Legible Layout</p>	<p>Development proposals will be favourably considered where the planning and design of layout:</p> <ul style="list-style-type: none"> - create a permeable and legible street system that connects well with the existing links within and outside of the development; - arrange building forms, access points, routes, public and private spaces, and ancillary functions in an efficient, safe, workable, spatially coherent and attractive manner; - incorporate existing site features of value; and - safeguard the amenities of occupiers and nearby properties. 	<p>No Likely Significant Effect</p> <p>A development management policy relating to scheme layout. This policy is not expected to pose as a likely significant effect to European Sites and can therefore be screened out from further discussion.</p>

Policy	Description	HRA Implications
<p>BEXX: Buildings Design</p>	<p>In ensuring high quality design standard, new buildings will be supported where it can be demonstrated that they:</p> <ul style="list-style-type: none"> - have a positive impact on their setting in terms of siting, scale and massing, materials and detailing, use and ground floor activity, wider townscape and landscape impacts; - are safe, convenient and accessible for all users to a level in excess of building regulations minima; - design measures to reduce the environmental footprint of the buildings, in line with Policy X - support and integrate biodiversity in the built environment; - are constructed in a sustainable manner and are easily adaptable to needs of future occupiers; - successfully integrate functional needs such as storage, refuse and recycling, bicycles and car parking; electric car charging points; and - incorporate safe emergency evacuation facilities for all building users. <p>Alterations and extensions to existing buildings will be permitted where they:</p> <ul style="list-style-type: none"> - reflect, or positively respond to, the existing building form, material palette and architectural detailing in keeping with Policy 10.X <p>Responding to context;</p> <ul style="list-style-type: none"> - proposals for doors, windows and roof profiles respect the character and proportions of the original building and surrounding context; - do not unacceptably overlook, overshadow or visually dominate neighbouring properties; - respect the space between buildings where this contributes to the character of an area; and - retain sufficient amenity space, bin storage, vehicle access and cycle and car parking. 	<p>No Likely Significant Effect</p> <p>This policy is related to building design, this include preventing impacts to the surrounding landscape. As such, this policy is not expected to pose as a likely significant effect to European Sites and can therefore be screened out from further discussion.</p>

Policy	Description	HRA Implications
BEXX: Paving Over Front Garden	<p>Where planning permission is required for proposals for the paving over of front gardens, the following criteria should be met:</p> <ul style="list-style-type: none"> - there will be no adverse impact on surface water run-off, particularly for those areas of the Borough with high levels of surface water flooding in line with Policy X (Flooding); - it will not have a negative impact on the character and setting of the immediate area, particularly where applications fall within conservation areas or in the curtilage of a listed building; and - it will not result in a net loss of biodiversity. 	<p>No Likely Significant Effect</p> <p>This policy ensures that paving over gardens does not negatively impact upon surface water discharge and the environment. As such, this policy is not expected to pose as a likely significant effect to European Sites and can therefore be screened out from further discussion.</p>

Policy	Description	HRA Implications
<p>BEXX: Designing Landscape and the Public Realm</p>	<p>Landscape and public realm must be designed as an integral part of new development proposals. High quality development will be supported where they can demonstrate how their proposals:</p> <ul style="list-style-type: none"> - are designed in relation to the function and character of the spaces and surrounding area; - retain or enhance existing features including open spaces, trees, natural habitats or other features which make a positive contribution to the character, appearance or significance of the local area; - incorporate Green and Blue Infrastructure in an appropriate manner to the scale of adjacent buildings and the space available; - enhance biodiversity through the use of native planting and/or selected species capable of adapting to climate change; - coordinate the design and siting of street furniture, boundary treatments, lighting, signage and public art; - factor microclimate and daylight into the design proposals; - use high quality materials, finishes and street furniture that are suitable to the location and context and help create local distinctiveness; - adopt the principles of inclusive design and facilitate an inclusive environment for all users; and - demonstrate how public spaces are to be maintained for the life of the development. <p>This policy should be read in conjunction with Policy X Residential Space Standards, Policy X Inclusive Design, Policy X Green and Blue Infrastructure.</p>	<p>No Likely Significant Effect</p> <p>This policy encourages development to including landscape design within development proposals, this includes open space and the planting of trees. As such, this policy is not expected to pose as a likely significant effect to European Sites and can therefore be screened out from further discussion.</p>

Policy	Description	HRA Implications
<p>BEXX: Open Space in New Development</p>	<p>New development proposals are expected to provide functional onsite open space and/or recreational amenities and may where appropriate be required to also provide a financial contribution towards new or improved facilities within the Borough.</p> <p>The amount and type of provision required will be determined according to the size, nature and location of the proposal; quantity and type of open space needed; and existing provision accessible to the proposal. All payments will be in line with the Policy 10.7 Infrastructure and Community Facilities.</p> <p>A commuted sum may be requested for:</p> <ul style="list-style-type: none"> - proposals where strategic open space requirements cannot be met within the site; - local and strategic open space in developments of single person households or of dwellings for the elderly (where however some compensating increase in private amenity space may be required); - a town/district/village centre location within Brentwood; or - where it is justified by an outstanding urban design approach based on site constraints and opportunities. <p>All open space provision should be fully equipped to meet the needs of users as agreed by the Council, reflecting acceptable distance and minimum size criteria for different types of open space as set out in the Council's Open Space Standards (provided in Figures 10.3 and 10.4). Maintenance Plans should be submitted at planning application stage for all new facilities provided for exercise or recreation purposes. This is to secure quality over the long term and clarify responsibilities from the outset.</p>	<p>No Likely Significant Effect</p> <p>This policy encourages the provision of and preservation of open spaces within Brentwood. This is a positive policy as open space has the potential to divert recreational pressure away from sensitive European sites. As such, this policy is not expected to pose as a likely significant effect to European Sites and can therefore be screened out from further discussion.</p>

Policy	Description	HRA Implications
<p>BEXX: Open Space, Community, Sport and Recreational Facilities</p>	<p>Within the Borough’s urban areas, permission will not be granted for development of land allocated on the Proposals Map as protected Open Space or Local Green Space unless it can be demonstrated:</p> <ul style="list-style-type: none"> - that alternative and improved provision can be created in a location well related to the functional requirements of the relocated use and existing and future users; - the proposal would relate to the enhancement of the open space, contributing to both the character and amenity of the area; or - the provision of new open space creates no additional displacement within the Green Belt. <p>All proposals, including the designation of new Local Green Space and landscaping, must be accompanied by a maintenance plan to ensure long-term quality and scheme viability. There will be a presumption against any development that involves the loss of open space, community, sport, recreation or play facilities, including allotments, except where it can be demonstrated that there is an excess of provision, or where alternative facilities of equal or better quality and convenience will be provided as part of the development. Where appropriate, the Council will seek provision of community and recreational facilities through the acquisition of land, joint use of existing facilities or by entering into negotiation with private landowners.</p>	<p>No Likely Significant Effect</p> <p>This policy encourages the preservation of open spaces within Brentwood. This is a positive policy as open space has the potential to divert recreational pressure away from sensitive European sites. As such, this policy is not expected to pose as a likely significant effect to European Sites and can therefore be screened out from further discussion.</p>

<p>BEXX: Green and Blue Infrastructure</p>	<p>Brentwood's existing ecological networks including Thames Chase Forest, its green and open spaces, as well as green and blue features in the built environment are a part of the Borough's network of Green and Blue Infrastructure (GBI) and should be protected, planned, enhanced and managed.</p> <p>Development proposals should:</p> <ul style="list-style-type: none"> - ensure GBI is integral to the primary decision making at every stage in the planning process; - maximise opportunities for the provision, restoration, enhancement, and connection of GBI that integrates with natural and historic environments and systems; - direct buildings and construction area to the least sensitive locations; - provide appropriate specification and maintenance plans for proposed on site green and blue infrastructure throughout the life of the development, this includes small scale greening interventions such as green roofs, street trees and soft landscaping; - protect and enhance Brentwood's rivers, ponds and watercourses, avoid any adverse impacts on existing rivers, the water quality of the rivers and watercourse, and demonstrate that any unavoidable impacts are mitigated; - seek to improve the water environment and ensure that adequate wastewater infrastructure capacity is provided; - ensure that misconnections between foul and surface water networks are eliminated and not easily created through future building alterations; - incorporate measures such as smart metering, water saving and recycling, including retrofitting and rain/grey water harvesting, to help to achieve lower water consumption rates and to maximise futureproofing; - deliver environmental net gains; if there is a net loss from the development, provide provisions through offsetting. <p>Where this is not possible, financial contributions to facilitate improvements to the quality and extent of existing GBI in Brentwood Borough will be sought.</p> <p>This Policy should be read in conjunction with Policy X Access to Nature, Policy X Flood Risk, Policy X, Policies X (relating to Nature and Wildlife).</p>	<p>No Likely Significant Effect</p> <p>This policy encourages the protection and enhancement of green and blue infrastructure within Brentwood such as the Thames Chase Forest. As such, this policy is not expected to pose as a likely significant effect to European Sites and can therefore be screened out from further discussion.</p>
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Policy	Description	HRA Implications
BEXX: Access to Nature	<p>Access to nature should be integrated as a fundamental part of site and buildings design. Development, including conversion of existing buildings, will be supported if:</p> <ul style="list-style-type: none"> - major developments provide direct access to nature by measures such as buildings design and orientation, high-quality landscaping, planting, green roofs, green walls, nature-based sustainable drainage and/or non-motorised access to the countryside; <p>These measures should be protected, planned, designed and managed as integrated features of Green and Blue Infrastructure;</p> <p>Development in areas that are more than 1km walking distance from an accessible green open space should seek opportunities to improve residents' experience and interaction with nature by means of design and/or greening interventions.</p> <p>This Policy should be read in conjunction with Policy X Addressing the Climate Change, Policy X Buildings Design, Policy X Designing Landscape and the Public Realm.</p>	<p>No Likely Significant Effect</p> <p>This policy encourages access to nature within Brentwood, through green roofs and nature-based sustainable drainage. As such, this policy is not expected to pose as a likely significant effect to European Sites and can therefore be screened out from further discussion.</p>
BEXX: Community Food Growing	<p>Provision of space for personal and community gardening and food growing, within new developments will be supported.</p>	<p>No Likely Significant Effect</p> <p>This policy encourages community garden spaces within Brentwood. This is a positive policy as this type of outdoor activity has the potential to divert recreational pressure away from sensitive European sites. As such, this policy is not expected to pose as a likely significant effect to European Sites and can therefore be screened out from further discussion.</p>

Policy	Description	HRA Implications
BEXX: Protecting Land for Gardens	Proposals for development on sites that form part of an existing allotment, garden, or group of gardens will only be permitted where: <ul style="list-style-type: none"> - the form, height and layout of the proposed development is appropriate to the surrounding pattern of development and the character of the area; - sufficient garden space and space around existing dwellings is retained, especially where these spaces and any trees are worthy of retention due to their contribution to the character of the area and their importance for biodiversity; - the amenity and privacy of neighbouring, existing and new properties is protected; - provision is made for adequate amenity space, vehicular access arrangements and parking spaces for the proposed and existing properties; and - there is no detrimental effect on the potential comprehensive development of the wider area. 	<p>No Likely Significant Effect</p> <p>This policy encourages the preservation of garden spaces within Brentwood. This is a positive policy as garden provision has the potential to divert recreational pressure away from sensitive European sites. As such, this policy is not expected to pose as a likely significant effect to European Sites and can therefore be screened out from further discussion.</p>

Policy	Description	HRA Implications
BEXX: Conservation and Enhancement of Historic Environment	<p>All development proposals that affect heritage assets and their settings will be required to:</p> <ul style="list-style-type: none"> - conserve, sustain and enhance designated and non-designated heritage assets including views into and out of conservation areas and their settings; ensure new development is sensitively sited and integrated in accordance with advice in accordance with national policy and guidance; - submit a Heritage Statement providing sufficient information on the significance of the heritage asset, the potential impacts of the proposal on their character and setting , how a proposal has been modified to mitigate harm; where archaeological potential is identified this should include an appropriate desk based assessment and, where necessary, a field evaluation; and - provide clear justification for any works that would lead to harm or substantial harm to a heritage asset through detailed analysis. <p>Proposals that make sensitive use of heritage assets, particularly where these bring redundant or under used buildings or areas, especially any on English Heritage’s At Risk Register, into appropriate use will be encouraged.</p> <p>When considering proposals for development that affect non-designated heritage assets, the Council will take into account the scale of any harm or loss and the significance of the heritage asset as set out in accordance with national policy and guidance.</p>	<p>No Likely Significant Effect</p> <p>This policy encourages the preservation of historic landscapes within Brentwood. As such, this policy is not expected to pose as a likely significant effect to European Sites and can therefore be screened out from further discussion.</p>

Policy	Description	HRA Implications
<p>BEXX: Listed Buildings</p>	<p>Proposals for development affecting or within the vicinity of a Listed Building should be accompanied by a Heritage Statement that describes the significance of the Listed Buildings affected and includes full details of the siting, design, access arrangements and external appearance of the development so that it is possible to assess whether the proposals are sympathetic to its character and setting.</p> <p>Changes of use of Listed Buildings and any associated works of alteration, including external illumination, may be permitted where this would contribute economically towards the restoration, retention or maintenance of the Listed Building and/or group of buildings, while protecting the historic, spatial or structural integrity of the building or its setting.</p> <p>Proposals for the alteration or extension of Listed Buildings will only be permitted where these are sympathetic to the buildings' character and appearance, and whether features of special architectural or historic interest are preserved, restored or complemented.</p> <p>Proposals involving the partial demolition or full demolition of a grade II Listed Building will only be permitted in exceptional circumstances; development involving the partial demolition or full demolition of a grade I or II* Listed Building will only be permitted in wholly exceptional circumstances 73, where all of the following criteria are met:</p> <ul style="list-style-type: none"> - the building cannot be used for its existing, previous or original purpose or function; nor can it be changed to any reasonable and viable use; - conservation by grant-funding or some form of charitable or public ownership is demonstrably not possible; - the historic character or appearance of the main building would be maintained or improved by the demolition of a curtilage building(s); - the harm or loss is outweighed by the benefit of bringing the site back into use; - substantial benefits to the community would derive from the nature, form and function of the proposed development; and - demolition would not result in the creation of a long-term cleared site to the detriment of adjacent Listed Buildings. <p>Where development is authorised subject to the above criteria, permission will be subject to agreement that any consequential demolition shall not be carried out until all relevant details of the proposed development have been approved and a contract has been entered into for its subsequent execution.</p>	<p>No Likely Significant Effect</p> <p>This policy encourages the preservation of listed buildings within Brentwood. As such, this policy is not expected to pose as a likely significant effect to European Sites and can therefore be screened out from further discussion.</p>

⁷³ Paragraph 194, NPPF (2018).

Policy	Description	HRA Implications
BEXX: Local List	<p>There is a general presumption in favour of the retention of local heritage assets, including buildings, structures, features and gardens of local interest as detailed in the Council's Local List. Where planning permission is required, proposals will be favourably considered where they retain the significance, appearance, character or setting of a local heritage asset.</p>	<p>No Likely Significant Effect</p> <p>This policy encourages the preservation of listed buildings, features and gardens within Brentwood. As such, this policy is not expected to pose as a likely significant effect to European Sites and can therefore be screened out from further discussion.</p>
BEXX: Conservation Areas	<p>Buildings or parts of buildings, open spaces, trees, vistas or other features which make a positive contribution to the character, appearance or significance of the Conservation Area should be preserved or enhanced.</p> <p>All development or redevelopment in or within the vicinity of a Conservation Area will only be permitted where the Council is satisfied that:</p> <ul style="list-style-type: none"> - development does not adversely affect the streetscape, skyline or significant views; - the development is proportional in scale, and complementary in design, with the adjoining buildings and wider area; - where any or part demolition is proposed, the structure makes no material contribution to the character or appearance of the area, or the structure is considered to make a negative contribution to the appearance of the Conservation Area; - where a change of use is proposed, there will be no adverse effect on the appearance or setting of the building; and - where an alteration is proposed, it is appropriate and sympathetic in design, scale, materials and colour to the rest of the building. <p>Proposals for any scheme, including alteration or replacement of shopfronts within a designated Conservation Area must include a historic and architectural evaluation within the Design and Access Statement. The level of detail provided should be proportionate to the importance of the heritage asset. Proposals will be expected to be of a high quality design and detailed information will be required.</p> <p>Outline planning permission will not be given for new buildings in a Conservation Area.</p>	<p>No Likely Significant Effect</p> <p>This policy provides mitigation measures for impacts of development on heritage conservation areas. As such, this policy is not expected to pose as a likely significant effect to European Sites and can therefore be screened out from further discussion.</p>

Policy	Description	HRA Implications
BEXX: Scheduled Monuments and Archaeological Remains	<p>The desirability of preserving a Scheduled Monument or their equivalent and its setting is a material consideration in the determination of planning applications. Planning permission will not be permitted for development which would adversely affect a Scheduled Monument, or other locally or nationally important sites and monuments, or their settings.</p> <p>A full Archaeological Assessment must be included with any planning application affecting areas of known or suspected archaeological importance to ensure that provision is made for the preservation of important archaeological remains. In areas considered less likely to have significant remains, full investigation or a watching brief may be required by planning condition. Where proposals affect archaeological sites and other designated assets, preference will be given to preservation in situ unless it can be shown that archaeological mitigation through recording, assessment, analysis report and deposition of archive is more appropriate.</p> <p>Any development that may affect archaeological remains will need to demonstrate the likely impact upon the remains and the proposed mitigation to reduce that impact.</p>	<p>No Likely Significant Effect</p> <p>This policy encourages the preservation of scheduled monuments and archaeological remains within Brentwood. As such, this policy is not expected to pose as a likely significant effect to European Sites and can therefore be screened out from further discussion.</p>
BEXX: Protected Lane/Quiet Lane	Details not yet provided	Full details are yet to be provided. This policy is not expected to have any HRA implications

Policy	Description	HRA Implications
<p>SP11: Strong and Competitive Economy</p>	<p>The Council and its partners will seek to maintain high and stable levels of local economic growth, enabling the Borough’s economy to diversify and modernise through the growth of existing business and the creation of new enterprises. Support will be given to proposals that secure job growth with ‘high value’ business and retail.</p> <p>This will be secured by:</p> <ul style="list-style-type: none"> - capitalising on the economic benefits that arise from Elizabeth Line; - improving access to a range of employment opportunities for Borough residents in order to meet local employment needs and maintain viable, sustainable communities; Strategic Employment-led Development - promoting economic growth through the intensification of vacant employment floorspace and underutilised sites, the regeneration of previously developed land, and the allocation of new sites necessary to support employment growth in sustainable locations; - making better use of existing business premises by opening up vacant employment floorspace for use by other businesses; - directing major new retail, office and leisure investment to the Borough’s Town Centres, stimulating improvement and regeneration; - supporting proposals which achieve the renewal and improvement of business premises to provide local employment opportunities, particularly in areas with good public transport; - enhancing and protecting the important role of small and medium sized commercial enterprises within the Borough’s economy; - maintaining current tourist attractions and encouraging new opportunities to increase the amount of visitors to the Borough; and - supporting the Borough’s rural economy and growing agricultural enterprises. 	<p>No Likely Significant Effect</p> <p>This policy is related to the economy of Brentwood through the safeguarding of current business and business premises. Whilst economic development has the potential to result in increased atmospheric pollution contributions, this policy does not identify any quantum or type of economic development. As such, this policy does not allocate sites for employment/ business development is therefore unlikely to pose as a significant effect to the European Sites located within catchment of Brentwood.</p>

Policy	Description	HRA Implications
SP12: Employment Land Provision	Providing for additional jobs will require a total of 32.8 hectares of new employment land. Areas allocated for employment purposes are set out in Policy 8.4 and identified on the Proposals Map.	<p>Likely Significant Effect</p> <p>This policy allocates a total of 32.8ha of employment land that is to be placed with Brentwood.</p> <p>In isolation there are no realistic linking impact pathways present, none the less in combination assessment is required.</p>
SP06: Job Growth	<p>Provision is made for 5,000 additional jobs to be provided in the Borough over the Plan period at an annual average rate of 250.</p> <p>Job growth will be distributed primarily through new employment (B-use) allocations but supported by existing employment sites and appropriate redevelopment where appropriate. In addition, other business sectors will support job growth over the Plan period, such as retail, hotel and leisure uses.</p>	<p>Likely Significant Effect</p> <p>This policy aims to provide a total of 5,000 additional jobs within the Borough over the course of the Plan period.</p> <p>In isolation there are no realistic linking impact pathways present, none the less in combination assessment is required.</p>
BEXX: Employment Development Criteria	<p>Development for employment uses (Class B1, B2 or B8) will be encouraged provided the proposal:</p> <ul style="list-style-type: none"> - is of a scale and nature appropriate to the locality; - provides appropriate landscaping and screening; - is accessible by public transport, walking and cycling; - ensures vehicular access avoids residential streets and country lanes, and the proposal does not give rise to significant traffic movements within rural areas; - is easily accessible to main arterial routes (A127, A12, M25) with appropriate parking provision; and - is accompanied by a Transport Assessment and Travel Plan in accordance with Policy 10.1 where a significant amount of movement is generated. 	<p>No Likely Significant Effect</p> <p>A development management policy that provides criteria for employment development. This policy does not identify any quantum or location of development and is therefore not expected to pose as a likely significant effect to the integrity of European Sites.</p>

Policy	Description	HRA Implications
BEXX: Employment Land Allocations	<p>Within those areas allocated for general employment and office development listed in Figure 8.3 and on the Proposals Map, the Council will seek to achieve and retain a wide range of employment opportunities. Redevelopment or change of use of business, office, general industry and distribution for non Class B uses will only be permitted where:</p> <ol style="list-style-type: none"> a. the proposal is for other non-residential uses that provide significant employment with no reasonable prospect of locating elsewhere in the Borough, and there is no identified need for the site or buildings for Class B uses; b. the proposal is wholly for affordable housing, the site is vacant and development would not prejudice continuation of adjacent employment uses; c. the proposal is for any other use and the application is supported by a statement of efforts made to secure re-use for Class B1-B8 or similar uses and other non-residential use that provides employment, which evidence demonstrates there is no realistic prospect of the site or buildings being used or re-used, including through redevelopment, for these purposes; or d. the site or buildings would be physically unsuitable for re-use for Class B1-B8 or similar use, even after adaptation (including sub-division into smaller units), refurbishment or redevelopment, in terms of siting, design, access, layout and relationship to neighbouring buildings and uses. 	<p>No Likely Significant Effect</p> <p>A development management policy relating to employment land allocations. This policy does not in itself allocate any employment sites and does not identify any quantum of development and is therefore not expected to pose as a likely significant effect to the integrity of European Sites.</p>

Policy	Description	HRA Implications
<p>BEXX: Brentwood Enterprise Park (101A)</p>	<p>Employment Criteria and Allocations Brentwood Enterprise Park will provide new floorspace for employment development (Use Classes B1, B2 and B8), made up of land at the former M25 works site (south of A127, site ref: 101A) and land at Codham Hall (north of A127, site ref: 101B), as set out on the Proposals Map.</p> <p>Development proposals should meet the following criteria:</p> <ul style="list-style-type: none"> e. Employment uses and jobs provided on site are consistent with the economic strategy set out within this Plan, and support the vitality and viability of Brentwood Town Centre and other Borough centres; f. Development is of a high design standard, meeting aspirations to enhance this location as a key gateway into Brentwood; g. Landscaping and planting should be used to create a buffer and provide improved visual amenity between the site and surrounding land, minimising any amenity impacts; and h. In accordance with Policy 10.3 Sustainable Transport, proposals should be accompanied by: <ul style="list-style-type: none"> i. Green Travel Plan linking this site with Brentwood, Shenfield, West Horndon and Dunton Hills Garden Village, and ii. Transport Assessment. <p>Brentwood Enterprise Park will comprise the following while further detail is provided through supporting Masterplan work for the site:</p> <p>Land at Former M25 Works Site, South of A127 (101A) Provision of 23.5 hectares of employment land is made at the former M25 Works Site with business floorspace (Use Classes B1, B2, and B8) to meet market-led needs along with complimentary associated ancillary uses. The site will have a particular onus on high quality buildings and attractive site frontages to surrounding roads.</p> <p>Land at Codham Hall, North of A127 (101B) An opportunity will be taken to regulate existing employment uses on land at Codham Hall with provision of up to 6.6 hectares of employment development, specifically Use Classes B2 and B8 but with B1 office space where appropriate to support industrial uses and provide front-office functions.</p>	<p>No Likely Significant Effect</p> <p>This policy allocates a single development site for employment purposes at the Brentwood Enterprise Park. However this policy does not allocate any quantum of development. In addition this site has previously been subject to HRA⁷⁴ which enabled this allocation to be screened out alone. In combination impact pathways relating to water quality and air pollution require further investigation.</p>

⁷⁴ AECOM. (January 2018) Habitats Regulations Assessment of Brentwood District Council Draft Local Plan: Preferred Site Allocations Regulation 18 Consultation (January 2018). Brentwood District Council

Policy	Description	HRA Implications
<p>BEXX: Supporting the Rural Economy</p>	<p>The Council will promote a sustainable rural economy by supporting appropriate, small scale rural enterprise. Proposals to diversify the range of economic activities on a farm or in a rural area will be supported where proposals:</p> <ul style="list-style-type: none"> - are accessible, and traffic generation can be satisfactorily accommodated by the existing or planned local road network, ensuring access arrangements are acceptable to the scale and type of development with no adverse effect on the road network; - benefit the local community and do not adversely affect quality of life or the amenity of local residents; - conserve and enhance local character and maintain the openness of Green Belt; - are consistent in scale and environmental impact with their rural location; - have no detrimental impact on existing village shops and business; - have no unacceptable effect on water quality or flooding, watercourses, biodiversity or important wildlife habitats; and - work collaboratively with Essex County Council, communications operators and providers, to provide high quality communications infrastructure and support initiatives, technologies and developments which increase and improve coverage and quality throughout the Borough. 	<p>No Likely Significant Effect</p> <p>A development management policy relating to supporting the rural economy. It is noted that economic development has the potential to result in increased atmospheric pollution contributions, however this policy does not identify any quantum, location or type of economic development. As such, it is unlikely that this policy will have significant impacts on the integrity of European Sites located within catchment of Brentwood. This policy can therefore be screened out from further discussion.</p>
<p>SP07: Retail and Commercial Leisure Growth</p>	<p>Provision is made for 4,844 square metres (net) of comparison retail floorspace and 3,833 square metres (net) of convenience floorspace to be provided in the Borough over the Plan period.</p>	<p>No Likely Significant Effect</p> <p>This policy allocates retail floorspace within Brentwood Borough.</p> <p>In isolation there are no realistic linking impact pathways present, however in combination assessment relating to atmospheric pollution and water quality is required.</p>

<p>SCXX: Retail Hierarchy of Designated Centres</p>	<p>The Council will promote the continued roles and functions of the Designated Centres to positively contribute towards their viability, vitality, character and structure. The hierarchy of Designated Centres in Brentwood Borough is as follows:</p> <ul style="list-style-type: none"> i. Brentwood Town Centre The Town Centre should be the first choice for retail, leisure and main town centre uses. If Brentwood cannot accommodate the retail floorspace projection within the Town Centre, it may be appropriate to allocate additional retail floorspace in smaller Designated Centres or strategic residential allocations. j. District Shopping Centres The District Shopping Centres will be a focus of more localised retail, commercial, flexible work space, community facilities and services that reduce the need to travel and contribute towards more sustainable and neighbourhood-scale living. k. Local Centres Local Centres include small shops of a local nature, serving a small catchment. They have an important role in providing day to day shops and services that are accessible to residents in villages and rural parts of Brentwood, especially in areas more remote from the larger centres. <p>The Designated Centres and Primary Shopping Area are detailed in Figure X and shown on the policies map.</p> <p>The sequential approach and impact assessment</p> <p>Retail, leisure, office and other main town centre uses will continue to be directed to these centres in line with the sequential approach to retail development locations set out in the NPPF⁷⁵.</p> <p>Development should contribute positively to the attractiveness, vitality, safety, environmental quality, historic character, employment opportunities and social inclusiveness of these centres. Change of use of upper floors above commercial premises to working space and/or residential will be encouraged provided that reasonable facilities and amenities are provided for, that development does not result in the loss of ancillary storage space or other beneficial use to the extent that it would make a ground floor unit unviable, and that the development would not prevent off street servicing of any ground floor unit.</p> <p>Any retail developments proposed outside these centres must be subject to a retail impact assessment, where the proposed gross floorspace is greater than 2,500 sq. m. A retail impact</p>	<p>No Likely Significant Effect</p> <p>A development management policy providing the retail hierarchy within Brentwood. There are no linking impact pathways present and this policy can be screened out.</p>
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⁷⁵ Paragraph 86

Policy	Description	HRA Implications
	assessment may be required below this threshold where a proposal could have a cumulative impact or an impact on the role or health of nearby centres within the catchment of the proposal.	

<p>SCXX: Brentwood Town Centre</p>	<p>The Council will conserve the positive qualities of Brentwood Town Centre while enhancing and improving negative aspects of function and appearance.</p> <p>Development in the Town Centre should contribute to the Council’s aim of improving the capacity and quality of the public realm throughout Brentwood Town Centre, contribute to a vibrant High Street and the surrounding Conservation Area in line with the Town Centre Design Guide SPD. Shopfronts and signage have significant impacts on its surroundings therefore proposals are required to incorporate high quality, attractive shopfronts that enhance the street scene, in line with the Council’s adopted Town Centre Shopfront Guidance SPD.</p> <p>Where necessary, design must incorporate technology and property management, parking and traffic movement mitigations to reduce congestion.</p> <p>Chapel Ruins, Baytree Centre and South Street areas</p> <p>This area provides a link to strategic sites on the High Street therefore improving its permeability and integration into the wider public realm network will create a more welcoming and flexible space at the heart of the Town Centre, enable its historical settings to be celebrated. Proposals should demonstrate how they:</p> <ul style="list-style-type: none"> l. contribute to the enhancement of public realm around Chapel Ruins and the Conservation Area, retain and enhance their significance and character; m. complement the retail function and maintain or add to the vitality, viability and diversity of the Town Centre, by means such as mixed use schemes that include retail, leisure and residential; n. facilitate safe and pleasant pedestrian movement through improved alleyways, lighting, wayfinding and landscaping; and/or o. assist in uplifting and transforming the Baytree Centre and integrate it with the other parts of the Town Centre. <p>William Hunter Way</p> <p>The Council will work with developers and partners to improve the public realm links between the High Street and William Hunter Way, and through the redevelopment of William Hunter Way car park, create a mixed-use scheme to provide new retail and commercial floorspace.</p> <p>Proposals should demonstrate how they:</p> <ul style="list-style-type: none"> p. contribute to the improvements to frontages and public realm on William Hunter Way through landscaping and redevelopment; 	<p>No Likely Significant Effect</p> <p>A development management policy relating to Brentwood town centre. There are no linking impact pathways present and this policy can be screened out.</p>
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Policy	Description	HRA Implications
	<ul style="list-style-type: none"> q. provide additional shopfronts and double fronted shops, if development involves the rear of premises on the north side of the High Street; r. facilitate safe and pleasant pedestrian movement through improved lighting, wayfinding and landscaping; s. reprovide an appropriate quantum of parking, ensure that parking is well designed and integrated into the public realm. <p>Linkages to Brentwood station Improvements to the rail service to London will increase Brentwood Town Centre's regional public transport accessibility. The Council will seek to enhance public realm and way finding around Brentwood Station, foster a stronger sense of place and sense of arrival, improve the linkages from the Town Centre to the station, with Kings Road being the primary focus. Proposals should demonstrate how they:</p> <ul style="list-style-type: none"> t. contribute to the enhancement of public realm around Brentwood station, Kings Road and Kings Road junction through design, landscaping and redevelopment; u. facilitate safe and convenient traffic movement with priority given to pedestrians and cyclists, by means such as improved junctions, cycle paths, lighting and wayfinding; v. add to the vitality and vibrancy of the Town Centre by providing an appropriate mix and balance of uses including residential, employment, commercial and amenity spaces; and <p>provide an appropriate quantum of parking, whilst ensure that parking is well designed and integrated into the public realm.</p>	

<p>SCXX: Mixed Use Development in Designate Centres</p>	<p>Within the boundary of Designated Centres as set out in Policy X and defined on the policies map:</p> <ul style="list-style-type: none"> - mixed use development will be supported if: <ul style="list-style-type: none"> o they are in proportion to the scale and function of the centre; o they contain an appropriate mix of ground floor uses; o proposed development makes efficient use of the site and is considered to be of sufficient density. - proposals resulting in the loss of centre uses at ground floor level to non-centre uses, as defined in Figure X, which results in an unacceptable mix of uses will not be permitted; - non-retail development that are classed as centre uses, as defined in Figure X, should: <ul style="list-style-type: none"> o complement the retail function and maintain or add to the vitality, viability and diversity of the centre; o provision is made for an active frontage, such as a window display, which is in keeping with the character of the shopping area; o not give rise to a detrimental effect, individually or cumulatively, on the character or amenity of the area through smell, litter, noise or traffic problems; o proposals for new hot food takeaways (Use Class A5) within 400m walking distance from the entrance points of primary or secondary schools will be restricted in order to promote the health and wellbeing of school pupils. Hours of opening will be limited to after 5pm on school days and lunch time opening will only be permitted where schools within 400m do not allow pupils to freely leave school premises during lunch breaks; - changes of use from retail to another centre use as set out in Figure X will only be permitted where the development would satisfy the above criteria and retain an appropriate mix and balance of uses which will provide for the needs of local residents; 	<p>No Likely Significant Effect</p> <p>A development management policy relating to mixed use development. There are no linking impact pathways present and this policy can be screened out.</p>
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Policy	Description	HRA Implications
	<ul style="list-style-type: none"> - proposals for separate units of retail, offices, leisure, cultural, community facilities and residential on upper floors are supported provided that the use would have a safe and convenient access, a separate refuse and recycling store, and would not inhibit the functioning of the ground floor use. Centre uses and employment uses should be given priority over residential uses unless it can be demonstrated that this would lead to an imbalance of uses. 	

Policy	Description	HRA Implications
<p>SCXX: Primary Housing Areas</p>	<p>Retail use should remain the predominant use in Primary Shopping Areas as set out in Policy X and defined on the policies map.</p> <p>Proposed retail development will be supported if they:</p> <ul style="list-style-type: none"> - contribute to the area’s attractiveness, accessibility and vibrancy by adding to or providing a range of shops to meet local needs, including opportunities for small, independent shops; - would not result in subdivision of an existing large retail unit; - be fully integrated with the existing shopping area; - facilitate safe, convenient and pleasant pedestrian movement through improved lighting and landscaping. <p>Proposals resulting in the loss of retail uses at ground floor must demonstrate that:</p> <ul style="list-style-type: none"> - the use is no longer viable, by evidence of active marketing to the public for at least 12 months, showing that the premises are not reasonably capable of being used or redeveloped for a retail use; - development would not result in 3 or more non-retail use units in adjoining premises. <p>Proposals for retail and commercial leisure development outside the Borough’s Primary Shopping Areas over 2,500 square metres will only be permitted provided an accompanying impact assessment can satisfactorily demonstrate that:</p> <ul style="list-style-type: none"> - associated travel demand can be satisfactorily accommodated by the transport network with appropriate mitigation; - the proposal does not give rise to any detrimental impact on amenities in the surrounding area; and - travel by more sustainable forms of transport than the private car will be achieved. 	<p>No Likely Significant Effect</p> <p>A development management policy relating to Primary Housing Areas. There are no linking impact pathways present and this policy can be screened out.</p>

Policy	Description	HRA Implications
SCXX: Non-centre Uses	Proposals for non-centre uses in the Designated Centres; should demonstrate how they: <ul style="list-style-type: none"> - complement the retail function and makes a positive contribution to the vitality, viability and diversity of the Designated Centre it is located within; - would not create an over-concentration of non-centre uses which are harmful to the function of the centre - provision is made for an active frontage in keeping with the character of the shopping area; - would not give rise, either alone or cumulatively, to a detrimental effect on the character or amenity of the area through smell, litter, noise or traffic problems. Demonstrates any potential related problems can be overcome satisfactorily to protect amenities of surrounding residents. Details of extraction, filtration, refrigeration or air conditioning units should be submitted with any application; and - for proposals creating more than two residential flats above ground floor level, the development would not result in the loss of ancillary storage space or other beneficial use to the extent that it would make a ground floor unit unviable, and the development would not prevent off street servicing of any ground floor unit. 	<p>No Likely Significant Effect</p> <p>A development management policy relating to Non-centre uses. There are no linking impact pathways present and this policy can be screened out.</p>

Policy	Description	HRA Implications
SCXX: Night Time Economy	<p>After-hours cultural, entertainment and leisure uses in Designated Centres will be encouraged as part of mixed use development. After-hours leisure should raise standards and broaden the appeal of the night-time economy. Proposals should:</p> <ul style="list-style-type: none"> - be safe and welcoming, delivering high standards of customer care; - allow people to walk and cycle around the centre with ease; - offer a vibrant choice of leisure and entertainment for a diversity of ages, lifestyles and cultures, including families and older people; - provide a mix of activities that reinforce local character and identity; - would not give rise, either alone or cumulatively, to a detrimental effect on the character or amenity of the surrounding residential area through smell, litter, noise or traffic problems. Demonstrates any potential related problems can be overcome satisfactorily to protect amenities of surrounding residents; - provide evidence of responsible management and stewardship arrangements to ensure there is no disturbance to surrounding properties and residents or harm to surrounding area amenity. 	<p>A development management policy relating to the night time economy. There are no linking impact pathways present and this policy can be screened out.</p>
XX: Planning for Inclusive Communities	<p>To plan for and build inclusive environment that supports our residents and communities, the Council will work with partners, stakeholders and developers to:</p> <ul style="list-style-type: none"> - provide access to good quality community spaces, services and amenities and infrastructure that accommodate, encourage and strengthen communities; - create places that foster a sense of belonging and social interaction, where communities can develop and thrive; - ensure that streets and public spaces are planned for everyone to move around and spend time in comfort and safety, are convenient and welcoming with no disabling barriers, providing independent access without additional undue effort, separation or special treatment; - ensure buildings and places are designed in a way that everyone regardless of their ability, age, income, ethnicity, gender, faith, sexual orientation can use confidently, independently, with choice and dignity, avoiding separation or segregation; - ensure that new buildings and spaces are designed to reinforce inclusivity of neighbourhoods, and are resilient and adaptable to changing community requirements. 	<p>No Likely Significant Effect</p> <p>This policy safeguards community spaces and amenities. This policy ensures that development is inclusive for all and as such this policy is regards development management and design rather than site allocations. As such this policy is unlikely to have significant effects to the integrity of European Sites and is screened out of further discussion.</p>

Policy	Description	HRA Implications
XX: Protecting and Enhancing Community Assets	<p>The Council recognises the importance of community assets as part of social infrastructure and seeks to ensure that:</p> <ul style="list-style-type: none"> - existing community assets will be protected from inappropriate changes of use or redevelopment; - new facilities should be easily accessible by public transport, cycling and walking and will be prioritised in Designated Centres; - development proposals that provide high quality, inclusive community assets that addresses a local or strategic need and supports service delivery strategies will be supported; - development proposals that seek to make best use of land, including the co-location of different forms of community assets and the rationalisation or sharing of facilities, will be encouraged and supported; - development proposals that would result in a loss of community assets will be discouraged unless it can be demonstrated that: <ul style="list-style-type: none"> o there are realistic proposals for re-provision that continue to serve the needs of the neighbourhood and wider community; or o the loss is part of a wider public service transformation plan which requires investment in modern, fit for purpose infrastructure and facilities to meet future population needs or to sustain and improve services. - redundant community assets should be considered for full or partial use as other forms of social infrastructure before alternative developments are considered. <p>This policy should be read in conjunction with Policy X Securing New Infrastructure and Facilities, X Education Facilities, and X Buildings for Institutional Purposes, further relevant policies.</p>	<p>No Likely Significant Effect</p> <p>This policy safeguards community assets such as community centres and public transport from re-development/ change of use. This policy is therefore not expected to pose as a likely significant effect to the integrity of the European Sites located within catchment of Brentwood.</p>

Policy	Description	HRA Implications
<p>SCXX: Securing New Infrastructure and Facilities</p>	<p>The Council will require all new development to meet on and off-site infrastructure requirements necessary to support development proposals and mitigate their impacts.</p> <p>Planning obligations secured through Section 106 agreements will be used to provide necessary site related infrastructure requirements such as new access arrangements, provision of open space and other community infrastructure, local highway/transportation mitigation and environmental enhancements. Necessary off-site infrastructure will continue to be secured through the pooling of contributions secured through Planning Obligations and, once adopted, according to the Council’s Community Infrastructure Levy Charging Schedule.</p> <p>The Council will require all new development to be consistent with the adopted ECC Developers Guide to Infrastructure Contributions, to reflect the level of contributions required from new development for the provision of essential infrastructure by ECC.</p> <p>Planning Obligations will include specific infrastructure requirements made necessary by individual developments. Section 216 of the Planning Act (2008) sets out the broad types of infrastructure which CIL can be used for. This includes transport facilities, flood defences, schools, medical facilities, recreational facilities, open spaces and affordable housing. Further information regarding requirements will be set out in the Council’s Infrastructure Delivery Plan. The Council’s is preparing a Community Infrastructure Levy (CIL) Charging Schedule alongside the Local Plan. Until this is adopted, the Council will assess all development proposals and seek the provision of, or contributions to, necessary on or off-site infrastructure to be secured through planning obligations.</p> <p>This policy should be read in conjunction with Policy X Protecting And Enhancing Community Assets.</p>	<p>No Likely Significant Effect</p> <p>This policy ensures that all development is supported by the corrected level of infrastructure, this also include green space. This policy does not therefore allocate infrastructure; rather this policy provides mitigation for development. As such this policy is not expected to have likely significant effects to European Sites and is screened out from further discussion.</p>

Policy	Description	HRA Implications
<p>SCXX: Education Facilities</p>	<p>Sites proposed for or in current educational use are protected for that use in line with Policy XX Protecting and Enhancing Community Assets. In addition, the change of use or re-development of educational establishments and their grounds will not be permitted unless:</p> <ul style="list-style-type: none"> - it can be clearly demonstrated that the use of the site is genuinely redundant and no other alternative educational or community use can be found; - satisfactory alternative and improved facilities will be provided; - the area of the site to be redeveloped is genuinely in excess of Government guidelines for playing field provision, taking into account future educational projections. <p>Where there is a demonstrable need for the facilities, as a result of existing deficiency or regeneration or new development, planning permission will be granted for appropriate and well-designed proposals for new school and education facilities in sustainable locations on sites of sufficient size.</p> <p>New or enhanced education facilities will be permitted if:</p> <ul style="list-style-type: none"> - the scale, range, quality and accessibility of education facilities are improved; - they are located in or in close proximity to the community that they are intended to serve; - for proposals in urban areas, the site is easily accessible by public transport, walking and cycling; - adverse impacts on the transport network and parking provision will be mitigated to an acceptable level; and - they mitigate the impact of any associated residential development. <p>The Council recognises the differences in location and design requirements between rural and urban based new education proposals in the Borough and will assess applications accordingly. Where necessary, the Council will utilise planning obligations or CIL to help mitigate any adverse impacts of an educational development and assist in delivering development that has a positive impact on the community.</p> <p>Developers should engage with the Local Education Authority at the earliest opportunity and work cooperatively to ensure the phasing of residential development and appropriate mitigation is identified in a timely manner to ensure appropriate education provision can be secured. Proposals in the Green Belt should refer to Green Belt policies.</p>	<p>No Likely Significant Effect</p> <p>This policy does not allocated sites for development; rather this policy safeguards education facility, such as a schools, are safeguarded from development. As such this policy is not expected to pose as a likely significant effect to European Sites.</p>

Policy	Description	HRA Implications
<p>SCXX: Buildings for Institutional Purposes</p>	<p>Where there is a demonstrable need for the facilities, as a result of existing deficiency or regeneration or new development, planning permission will be granted for appropriate and well-designed proposals in sustainable locations on sites of sufficient size.</p> <p>Redevelopment, change of use to or new buildings for institutional purposes will be permitted where the Council is satisfied that:</p> <ul style="list-style-type: none"> - the scale, range, quality and accessibility of facilities are improved; - the proposal is in close proximity to the community that the facilities are intended to serve; - the site is easily accessible by public transport, walking and cycling, impacts on the transport network are mitigated to an acceptable level and parking provision is adequate; and/or - the impact of any associated residential development are mitigated. 	<p>No Likely Significant Effect</p> <p>This policy does not allocate sites for the development for institutional purposes. This policy describes that development must be sustainable in design. As such, this policy is not expected to pose as a likely significant effect to European Sites.</p>
<p>SP10: Health Planning</p>	<p>To improve Brentwood’s residents’ health and well-being as well as reduce health inequalities, the Council will work with relevant partners and developers to:</p> <ul style="list-style-type: none"> - ensure that the wider determinants of health and well-being are addressed in an integrated and co-ordinated way, taking a systematic approach to improving the mental and physical health of all residents and reducing health inequalities; - promote more active and healthy lives for all residents and ensure healthy choices are available; - assess the potential impacts of development proposals on the mental and physical health and wellbeing of communities, in order to mitigate any potential negative impacts, maximise potential positive impacts, and help avoid health inequalities, for example through the use of Health Impact Assessments; - plan for appropriate health and care infrastructure to address the needs of Brentwood’s population. - plan for improved access to and quality of green spaces, the provision of new green and blue infrastructure, and spaces for play, recreation and sports; - seek to improve air quality where appropriate and necessary; - ensure that new buildings are well-insulated and sufficiently ventilated to avoid the health problems associated with damp, heat and cold; - seek to create a healthy food environment, increasing the availability of local produce through community allotments and restricting unhealthy options in line with Policy X, ,X, X. <p>This policy should be read in conjunction with Policy XX (Health Impact Assessment), XX (creating successful places) XX (managing heat risks) XX (access to nature) etc.</p>	<p>No Likely Significant Effect</p> <p>This policy is aimed at improving the health of Brentwood’s residential population. Objectives within this policy include improving aspects of the Boroughs air quality and accessibility to open green spaces. As such, this policy is not expected to pose as a likely significant effect to the integrity to European Sites. This policy can therefore be screened out from further discussion.</p>

<p>SCXX: Promoting Health and Wellbeing</p>	<p>Brentwood Borough Council is committed to ensuring all new developments promote healthier and inclusive environments. The design of the built environments and new developments play a key role in ensuring that health inequalities are not exacerbated and make it harder for people to live healthier lives. The evidence suggests that the following issues impact on the physical, social, and mental health of communities:</p> <ul style="list-style-type: none"> - The location, density and mix of land use; - Street layout and connectivity; - Access to public services, employment, local fresh food, education, leisure and recreation activities, and other community services; - Safety and security; - Open and green space; - Affordable and energy efficient housing; - Air quality and noise; - Extreme weather events and climate change; - Community interaction; and - Transport <p>Majority of proposals will be required to assess their impacts on health and well-being, upon the capacity of existing health and social care services and facilities, the environmental impacts and the promotion of health improvement activities. For Use Class C2 developments comprising residential care homes and nursing homes, and Use Class C3 residential developments of any size are encouraged to illustrate how health and wellbeing have been considered within the development. Planning proposals should adhere to the requirements set out in the Essex Planning Officer's Association (EPOA) Health Impact Assessment (HIA) Guidance notes. Those developments that are 50 or more units (or less than 50 units at the discretion of the planning authority where the number of units could propose a significant impact on the community and infrastructure) and non-residential developments in excess of 1,000m², are required to submit a Health and Wellbeing Impact Assessment as required by the EPOA HIA Guidance Note, which will measure the impact on health and wellbeing, the demand on the capacity of health and social care services and facilities arising from the development. Where significant impacts are identified, planning permission will be refused unless infrastructure provision and/or funding to reasonably meet the health and wellbeing and service requirements of the development are provided and/or secured by planning obligations, or by CIL, as appropriate.</p> <p>Brentwood Borough Council will require a Health and Wellbeing Impact Assessment to be prepared and carried out in accordance with the advice and best practice for such assessments as published locally through the Essex Planning Officers Association (EPOA). Developers will be expected to contact the Council at pre-application stage to complete the Healthy Communities</p>	<p>No Likely Significant Effect</p> <p>This policy describes similar objectives to Policy SP10: Health Planning. It is a management policy relating to the promotion of health and wellbeing. This policy is therefore also not expected to pose as a likely significant effect to European Sites that are located within catchment of Brentwood. This policy is therefore screened out from further discussion.</p>
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Policy	Description	HRA Implications
	<p>Checklist (as part of the validations checklist), to enable joint discussions to take place on the likely health and wellbeing impacts and environmental impacts of proposals. This is an opportunity to strengthen the process of spatial planning through partnership working, community engagement, evidence sharing and coordination and the impacts on health and wellbeing and the environment.</p> <p>Where applicable planning applications must adhere to POLICY SP10: HEALTHY PLANNING</p>	
<p>NE01: Conserving and Enhancing the Natural Environment</p>	<p>The Council is committed to the conservation and enhancement of the Borough's natural environment, including its varied landscapes, heritage, biodiversity and habitats, through the protection of designated sites and species, whilst planning positively for biodiversity networks and minimising pollution.</p> <p>The Council will plan for a multifunctional network of green and blue infrastructure which protects, enhances and, where possible, restores ecosystems, securing a net gain in biodiversity across Brentwood. The needs and potential of biodiversity will be considered together with those of natural, historic and farming landscapes, the promotion of health and wellbeing, sustainable travel, water management and climate change adaptation.</p> <p>The Council will ensure that new development does not contribute to water pollution and, where possible, enhances water quality, and demonstrates the advancement of biodiversity and amenity interests through the provision of a range of measures to protect, enhance and buffer watercourses.</p> <p>The Council will take a precautionary approach where insufficient information is provided about avoidance, management, mitigation and compensation measures. Management, mitigation and compensation measures will be secured through planning conditions/obligations where necessary.</p> <p>The Council is committed to the conservation and enhancement of the Borough's natural environment, including its varied landscapes, heritage, biodiversity and habitats, through the protection of designated sites and species, whilst planning positively for biodiversity networks and minimising pollution.</p>	<p>No Likely Significant Effect</p> <p>This policy safeguards and enhances the natural environment As such this policy is not expected to pose as a likely significant effect to the integrity of European Sites and is screened out from further discussion.</p>

Policy	Description	HRA Implications
NE02: Safeguarding the Historic and Natural Heritage Landscape Character	Development should foster a sense of place and local identity, and respect, and where possible, enhance the character of the area. In assessing individual proposals, regard will be given to: <ul style="list-style-type: none"> - sensitivity of an area to change; - importance of retaining the individual identity of separate settlements and parts thereof; - protecting, conserving and, where appropriate, enhancing heritage assets and their settings in order to conserve their significance; - potential impact of development on non-designated heritage assets including archaeology; - conserving and enhancing natural landscapes and their biodiversity and habitats, including through the creation of new habitats; - Thames Chase Plan; and - cumulative impact of development on heritage assets and the landscape character. 	<p>No Likely Significant Effect</p> <p>A development management policy relating to heritage and landscape. There are no linking impact pathways present and this policy can be screened out.</p>
NE03: Recreational Disturbance Avoidance and Mitigation Strategy (RAMS)	New development will need to consider on-site options for recreational disturbance impact mitigation and make appropriate financial contributions towards off site mitigation as prescribed in the Essex Coastal 'RAMS' mitigation strategy and the Epping Forest 'RAMS' mitigation strategy (as applicable). Prior to RAMS completions, the Council will seek proportionate contributions from proposed residential development to deliver all measures identified (including strategic measures) through project level HRAs, or otherwise, to mitigate any recreational disturbance impacts in compliance with the Habitat Regulations and Habitats Directive. This policy should be read in conjunction with Policy XXX: Wildlife and Nature Conservation XXX Development Contributions.	<p>No Likely Significant Effect</p> <p>A positive policy identifying the need for development to contribute to the relevant RAMS as required, thus providing protection to European sites from in combination effects of increased recreational pressure. This policy is therefore expected to be of benefit to these sites and unlikely to be of any significant effect.</p>

<p>NE04: Wildlife and Nature Conservation</p>	<p>Designated Environments Sites of Special Scientific Interest (SSSIs), National Nature Reserves (NNR), Special Protection Areas (SPAs), Special Areas of Conservation (SACs) and Ramsar sites - as shown on the Proposals Map - are unique and irreplaceable habitats and will require a full assessment in line with European legislation. These sites are afforded the highest level of protection and proposals should demonstrate avoidance, onsite management and onsite mitigation. Development on land within or outside these sites, which is likely to have an adverse impact on it (either individually or in combination with other developments) without appropriate mitigation (relative to the significance of the impact) will not be permitted. The Council will take a precautionary approach where insufficient information is provided about avoidance, management and mitigation measures. The Council will secure management, mitigation and enhancement through planning conditions/obligations where necessary. The Council acknowledge the sensitive biodiversity sites just beyond the borough boundary, including Basildon Meadows SSSI, Norsey Wood SSSI and Epping Forest SSSI and Special Area of Conservation. Proposals likely to have an adverse effect on these neighbouring sites will be assessed in per policy xxx above. Proposals likely to have an adverse effect on a Local Wildlife Site (LoWS), Local Nature Reserve (LNR), Special Roadside Verge or a site that satisfies the relevant designation criteria will not be permitted unless the benefits of the development clearly outweigh the harm to the nature conservation value of the site. If such benefits exist, the developer will be required to demonstrate that impacts will be avoided, and impacts that cannot be avoided will be mitigated on-site. Where residual impacts remain, offsite compensation will be required and demonstrate how they are achieving biodiversity net-gain in the Borough of Brentwood. Where there is a confirmed presence, or reasonable likelihood, of a legally protected species or priority species on an application site, the applicant will be required to demonstrate that adverse impacts upon the species have been avoided, and where they cannot be avoided adequately mitigated. Mitigation must conform to the requirements of relevant legislation and Natural England Standing Advice. Where impacts cannot be adequately mitigated, the proposal will not be permitted.</p> <p>Hedgerows Hedgerows make an important contribution to the character of an area and may be historically and occasionally archaeological important. They also contribute significantly to biodiversity. Therefore, like trees, hedgerows should be protected for their amenity, biodiversity and historic value. Development that is likely to impact hedgerows must be subjected to an assessment against the criteria of the Hedgerow Regulations 1997.</p>	<p>No Likely Significant Effect This policy safeguards designated sites of biological importance including European designated sites. This policy is therefore of benefit to European Sites and not expected to pose as a likely significant effect to the European Sites that are located within catchment of Brentwood.</p> <p>Recommendation It is recommended that policy wording is amended to ensure that development will not be permitted where an adverse effect on the integrity of a European site will result.</p>
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Policy	Description	HRA Implications
	<p>If a Hedgerow is deemed to be important under the Hedgerow Regulations, development proposals must demonstrate that adverse impacts upon the Important Hedgerow will be avoided, and impacts that cannot be avoided are mitigated on-site.</p> <p>In considering development proposals, the Council will normally expect the retention and beneficial management of any existing hedgerow; where a hedgerow is to be removed, the council will, where appropriate, require its replacement with native species, either within or neighbouring sites, as part of its mitigation strategy, or demonstrate how it will contribute to biodiversity net-gain through other appropriate habitat creation.</p> <p>In granting planning permission for new development where significant hedgerows are to be retained, the Council will ensure that these hedgerows are given appropriate protection during the building works, through the use of planning conditions.</p> <p>The Council will assess sites proposed for development to ascertain whether they fulfil the criteria for designation and may request information from applicants to assist in that process. If a site satisfies the criteria it will, for planning purposes, be treated as if it were a LoWS/LNR.</p> <p>All stages of development must be considered when assessing the impact and cumulative impact on wildlife sites both within and in proximity to the Borough of Brentwood.</p> <p>The Council will take a precautionary approach where insufficient information is provided about avoidance, management, mitigation and compensation measures. The Council will secure management, mitigation and compensation measures through planning conditions/obligations where necessary.</p> <p>Proposals that result in a net gain in Priority Habitat will in principle be supported, subject to other policies in this plan. Where Priority Habitats are likely to be adversely impacted by the proposal, the developer must demonstrate that adverse impacts will be avoided, and impacts that cannot be avoided are mitigated onsite. Where residual impacts remain, offsite compensation will be required so that there is no net loss in quantity and quality of Priority habitat in the Borough of Brentwood.</p> <p>Where development is permitted, the Council will require appropriate mitigation and compensatory measures to be provided. Such features include but are not limited to:</p> <ul style="list-style-type: none"> - Hedgerows and field walls; - Trees, woodlands, plantations and shelter belts; - River corridors; - Wetlands, ponds and reservoirs, - Soft landscaping; and - Other locally important habitats. 	

Policy	Description	HRA Implications
NE05: Ecology and Biodiversity	<p>All development proposals should:</p> <ul style="list-style-type: none"> a. seek opportunities to support and integrate biodiversity in the built environment; b. conserve, protect and enhance the network of habitats, species and sites (both statutory and non-statutory, including priority habitats and species) of international, national and local importance commensurate with their status; c. not result in any unacceptable impact on biodiversity and geodiversity, and mitigate all unavoidable impacts; and d. deliver a net gain in biodiversity where possible, by creating, restoring and enhancing habitats that are of particular relevance and benefits in the local context. <p>This Policy should be read in conjunction with Policy X Addressing the Climate Change, Policy X Green and Blue Infrastructure, and Policy X Landscape Protection and Woodland Management.</p>	<p>No Likely Significant Effect</p> <p>This policy safeguards ecology and biodiversity. This policy is not expected to pose as a likely significant effect and is therefore screened out from further discussion.</p>

Policy	Description	HRA Implications
<p>NE06: Landscape Protection and Woodland Management</p>	<p>Development will not be permitted where it would have a detrimental effect on, or result in the loss of, significant landscape heritage or a feature of ecological importance, including trees, woodlands or hedgerows.</p> <p>Where appropriate development proposals will be required to be accompanied by:</p> <ul style="list-style-type: none"> - an ecological survey as required by appropriate to the nature and scale of the proposal, identifying links to similar ecosystems within proximity of the development site in line with Policy 10.10 Green Infrastructure; - a landscape scheme detailing new planting requirements and where appropriate, replacement trees of a value commensurate or greater to that which is lost, boundary treatments and proposals for ecological enhancement; - an arboricultural assessment detailing the measures to protect and/or justification for the removal of any trees or hedgerows during onsite construction; - details of landscaping maintenance arrangements; and - a method statement for any land raising and/or dispersal of excavated or dredged materials. <p>Areas of landscape, biodiversity and geodiversity interest and local distinctiveness within the Borough will be protected from harm and their retention, enhancement and restoration will be encouraged. Where feasible, proposals should promote the use of trees, hedges, wildlife gardens, allotments, ponds, green roofs/walls, roosting boxes and wider habitat creation. In exceptional circumstances, where the landscape, biodiversity, social or economic benefits of a proposal are considered to outweigh the loss of a feature, impact on landscape character, or existing habitat, development may be permitted subject to adequate compensatory measures being implemented.</p> <p>In line with the NPPF, planning permission will not be permitted for development resulting in the loss or deterioration of irreplaceable habitats, including ancient woodland and the loss of aged or veteran trees found outside ancient woodland, unless the need for, and benefits of, the development in that location clearly outweigh the loss.</p>	<p>No Likely Significant Effect</p> <p>This policy safeguards woodland and associated biodiversity by provide mitigation for all development proposals. This policy is not expected to pose as a likely significant effect and is therefore screened out from further discussion.</p>

Policy	Description	HRA Implications
NE07: Thames Chase Community Forest	<p>The Council supports the conservation and enhancement of the area of the Thames Chase Community Forest within that part of the Borough as identified on the Proposals Policies Map. Through the Thames Chase Plan and Local Development Plan, the Council will support the aims of the Thames Chase Plan objectives:</p> <ul style="list-style-type: none"> - To protect, improve and expand the woodland character of the Community Forest; - To sustain the natural integrity of the Community Forest's air, land and water including wildlife; - To integrate Climate Change adaption and mitigation responses into the developing Community Forest; - To use the Community Forest to improve local health and wellbeing, volunteering, learning and employment; and - To enable effective partnership working from national to local level to maximise the impact of available resources. <p>Implementation will be affected in conjunction with Brentwood Countryside Management Service and local landowners. Any development proposals within the Community Forest area will be expected to make a positive contribution towards its implementation and comply with the policies contained in this plan. Within the Green Belt, proposals will also need to comply with criteria set out in Green Belt Policies.(REFERENCE POLICY XXX).</p>	<p>No Likely Significant Effect</p> <p>This policy safeguards the Thames Chase Community Forest. This policy is not expected to pose as a likely significant effect and is therefore screened out from further discussion.</p>

Policy	Description	HRA Implications
NE08: Air Quality	<p>The Council will promote measures to improve air quality, particularly within designated Air Quality Management Areas, and will expect development proposals to reduce sources of air pollution.</p> <p>Where the Council considers that air quality objectives are likely to be prejudiced or proposals fall within an Air Quality Management Area, applicants will be required to submit a detailed air quality assessment which sets out the impact the proposed development would have upon air quality, with particular consideration of traffic congestion. Planning permission will not be granted for development where there is likely to be a significant adverse impact on air quality. Air Quality Management Areas are shown on the Proposals Map.</p> <p>The Council will promote measures to improve air quality, particularly within designated Air Quality Management Areas, and will expect development proposals to reduce sources of air pollution.</p> <p>Where the Council considers that air quality objectives are likely to be prejudiced or proposals fall within an Air Quality Management Area, applicants will be required to submit a detailed air quality assessment which sets out the impact the proposed development would have upon air quality, with particular consideration of traffic congestion. Planning permission will not be granted for development where there is likely to be a significant adverse impact on air quality. Air Quality Management Areas are shown on the Proposals Map.</p>	<p>No Likely Significant Effect</p> <p>This policy promotes improvements in air quality. This policy is not expected to pose as a likely significant effect and is therefore screened out from further discussion.</p>
NE09: Floodlighting and Illumination	<p>Development proposals involving floodlighting or any other means of illumination (other than advertisements) will only be permitted where the scheme:</p> <ul style="list-style-type: none"> - is appropriate for the intended use; - is energy efficiency efficient; - provides the minimum level of light necessary to achieve its purpose; - minimises losses to the night sky and does not give rise to any increase in sky glow; and - ensures the appearance of the installation when unlit is acceptable. <p>Proposals must demonstrate adequate protection from glare and light spill particularly in sensitive locations, such as residential areas, sites of nature conservation interest, and have no adverse effect on amenity, highway safety, landscape or historic character.</p> <p>Applicants will need to submit a full lighting strategy, proportionate to their application, specifying details of lights, their power and type, overall level and distribution of illumination and times of operation. Conditions may be imposed to restrict lighting levels and hours of use or require measures to be taken to minimise adverse effects.</p>	<p>No Likely Significant Effect</p> <p>This policy aims to minimize/ reduce noise pollution by providing mitigation for all development proposals. This policy is not expected to pose as a likely significant effect and is therefore screened out from further discussion.</p>

NE10: Flood Risk

The Council will work in partnership with the Environment Agency and the Lead Local Flood Authority (Essex County Council) to manage and mitigate flood risk. All development proposals in areas at risk of flooding will need to submit a Flood Risk Assessment (FRA) in accordance with Sustainable Drainage Policy XXX, commensurate with the scale of the flood risk and recognising all likely sources of flooding – surface water, ground water and watercourse flood risk.

Proposed development will be required to avoid where possible flood risk to people and property and manage any residual risk, taking account of the impacts of climate change by:

- e. applying the Sequential Test, directing development to areas at lowest risk of flooding;
- f. if necessary, applying the Exception Test;
- g. safeguarding land from development that is required for current and future flood management;
- h. using opportunities offered by new development to reduce the causes and impacts of flooding; and

In areas designated as functional flood plains, development will only be permitted in accordance with national policy and guidance, and then only if:

- i. proposals are located in the lowest appropriate flood risk zone with regard to guidance set in the Brentwood Strategic Flood Risk Assessment as part of the sequential test;
- j. development would not constrain the natural function of the flood plain, either by impeding flow or reducing storage capacity; and
- k. development is constructed so as to remain operational even at times of flood through resistant and resilient design.

Where development is permitted within flood risk areas it must demonstrate that, where required, it will reduce fluvial and surface water flood risk and manage residual risks through appropriate flood mitigation measures including emergency planning and response. These measures may include, but are not restricted to:

- l. land management, landscape and planting measures;
- m. SuDS, including source control techniques;
- n. strategic water storage;
- o. flow diversion and attenuation; and

No Likely Significant Effect

This policy aims to reduce flood risk. This policy is not expected to pose as a likely significant effect and is therefore screened out from further discussion.

Policy	Description	HRA Implications
	<p>p. property level protection, which can include appropriate finished floor levels, safe area(s), emergency flood planning and flood resilience measures</p> <p>Applications will need to demonstrate that the sewerage provider has been contacted to identify whether the sewerage network has adequate capacity both on and off site to serve the development and to assess the need to contribute to any additional connections for the development to prevent flooding or pollution of land and water courses..</p> <p>q. Where sewerage capacity is identified as insufficient, development will only be permitted if it is demonstrated that improvements will be completed prior to occupation of the development.</p> <p>Where the site is located within a Critical Drainage Area (CDA). Development may have the potential to impact on the CDA in respect of surface water flooding. As a result of this the site will require an individually designed mitigation scheme to address this issue.</p> <p>This policy should be read in conjunction with Policy XXX SuDS, Policy XXX RAMS ...Policy XXX Wildlife and Nature Conservation.</p>	

Policy	Description	HRA Implications
<p>NE11: Contaminated Land and Hazardous Substances</p>	<p>Development proposals involving the use, movement or storage of hazardous substances will only be permitted within Employment Areas and planning permission will only be granted for development on, or near to land which is suspected to be contaminated, where the Council is satisfied that:</p> <ul style="list-style-type: none"> - there will be no threat to the health or safety of future users or occupiers of the site or neighbouring land; - there will be no adverse impact on the environment and quality of local groundwater or quality of surface water; and - there would be no unacceptable adverse impacts on property. <p>The Council will require applicants proposing development on or near known or potentially contaminated land to submit a detailed site characterisation and tiered risk assessment and to identify any remedial measures that need to be carried out (including remedial treatment and monitoring arrangements), provided in a detailed Remediation Scheme. Evidence of remediation should be to the satisfaction of the relevant statutory regulators.</p> <p>Planning permission will not be permitted for development on sites that lie near or adjacent to a hazardous substance site or notifiable installation, if the safety of the future occupiers of the development could be adversely affected by the normal permitted operations of the existing uses.</p>	<p>No Likely Significant Effect</p> <p>A development management policy relating to contaminated land and hazardous substances. There are no linking impact pathways present and this policy can be screened out.</p>

<p>NE12: Green Belt</p>	<p>Brentwood Borough is entirely located within the London Metropolitan Green Belt, northeast of Greater London. Brentwood is c. 15,312 ha in area, of which 13,700 ha of land is currently designated as Green Belt (over 89% of the borough). Brentwood currently makes up approximately 2.83% of the overall London Metropolitan Green Belt.</p> <p>The Metropolitan Green Belt boundaries within Brentwood Borough will be maintained in order to continue to serve its key function, and be protected from inappropriate development, and to:</p> <ul style="list-style-type: none"> - Preserve the Borough’s special character and landscape setting; - Check the growth of London and prevent ribbon development and urban sprawl; - Prevent the coalescence of settlements; - Assist in safeguarding the countryside from encroachment; and - Assist in urban brownfield land reuse, by encouraging the recycling of derelict and other urban land. <p>Development proposals within the Green Belt will be assessed in accordance with national policy and guidance. Development within the Green Belt will only be permitted if it maintains the Green Belt’s openness and does not conflict with the purposes of the Green Belt or harm its visual amenities.</p> <p>Consideration will be given to Gypsy and Traveller allocations within the Green Belt as long as it meets the requirements set out in Policy BE XX: Proposals for Gypsy, Travellers and Travelling Showpeople on Unallocated Land.</p> <p>Consideration will also be given to planning applications related to Sports and Recreational Facilities provided they meet the following criteria:</p> <ul style="list-style-type: none"> - the openness of the green belt is not compromised; - in the situation for parking facilities, where appropriate, permeable surface should be considered to avoid surface water flooding; - where the relocation and/or replacement of a sport and/or recreational building is being proposed, the building footprint is to be no larger than the existing footprint; and - the proposal adheres to the policy requirements as set out in POLICY BEXX: OPEN SPACE, COMMUNITY, SPORT AND RECREATIONAL FACILITIES. <p>Proposals related to sustainable energy technologies will be supported as long as it adheres to the requirements set out in this policy, POLICY BEXX: SUSTAINABLE CONSTRUCTION AND</p>	<p>No Likely Significant Effect</p> <p>This policy safeguards green belt land. This policy is not expected to pose as a likely significant effect and is therefore screened out from further discussion.</p>
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Policy	Description	HRA Implications
	RESOURCE EFFICIENCY, and POLICY BEXX: Carbon Reduction, Renewable Energy And Water Efficiency.	

<p>NE13: New Development, Extension and Replacement of Buildings in Green Belt</p>	<p>Within the defined Green Belt the construction of new buildings are considered inappropriate development in the Green Belt. Exceptions to this are:</p> <ul style="list-style-type: none"> - building for agriculture and forestry; - provision of appropriate facilities for outdoor sport, outdoor recreation and for cemeteries, as long as it preserves the openness of the Green Belt and does not conflict with the purposes of including land within it; - the extension or alteration of a building provided that it does not result in disproportionate additions over and above the size of the original building. In case of a dwelling that following also applies: <ul style="list-style-type: none"> o the existing dwelling is lawful, permanent, designed and originally constructed for residential use; o a substantial identifiable part of the original dwelling remains in place; o the design of the extension is appropriate to the host building and its setting and does not harm the openness or function of the Green Belt; and o applications to extend domestic curtilage into the Green Belt will not be permitted - The replacement of a building provided the new building is in the same use and not materially larger than the one it replaces; In addition the replacement of existing buildings will be allowed provided the following conditions are met: <ul style="list-style-type: none"> o the proposal would not lead to an expansion or intensification of the activity on the site; o any replacement dwelling will be expected to be located in the position of the existing dwelling expect where the local planning authority considers an alternative sitting to be more appropriate in green belt or amenity terms; o where the existing dwelling is a bungalow it should be replaced by a bungalow 	<p>No Likely Significant Effect</p> <p>A development management policy relating to development in the green belt. It does not identify any type, quantum or location of development. This policy is not expected to pose as a likely significant effect and is therefore screened out from further discussion.</p>
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- Limited infilling in villages, and limited affordable housing for local community needs under policies set out in the Local Development Plan (see policy X)
- Limited infilling or the partial or complete redevelopment of previously developed sites (brownfield land), whether redundant or in continuing use (excluding temporary buildings), which would not have a greater impact on the openness of the Green Belt and the purpose of including land within it than the existing development (see policy X).

The Council will encourage the beneficial use of the Green Belt, through opportunities to improve access, outdoor sport and recreation; retain and enhance landscapes, visual amenity and biodiversity; or improve damaged and derelict land.

The following settlements are excluded from the Green Belt as identified on the Proposals Map: Blackmore, Brentwood, Doddinghurst, Herongate, Hook End, Hutton, Hutton Mount, Ingatestone, Ingrave, Kelvedon Hatch, Mountnessing, Pilgrims Hatch, Shenfield, Stondon Massey, West Horndon and Wyatts Green.

Microgeneration integral to individual new development are encouraged, and may be acceptable under permitted development. Where not permitted development, the renewable energy installations should not impact on the openness, function and permanence of the Green Belt or conflict with the purpose of the land within it. Proposals for larger scale renewable energy projects in the Green Belt will comprise inappropriate development (NPPF Paragraph 91) and therefore only in very special circumstances will they be permitted.

Proposals to extend dwellings within the Green Belt (other than those identified in Policy 9.10) will be permitted in exceptional circumstances, in order to ensure the new building is not materially larger than the original, provided all the following criteria are met:

- the existing dwelling is lawful, permanent, designed and originally constructed for residential use;
 - a substantial and identifiable part of the original dwelling remains in place;
 - the total size of the dwelling as extended (including conservatories) does not exceed the original habitable floor space by more than 30%;
 - the design of the extension is appropriate to the host building and its setting and does not harm the openness or function of the Green Belt;
- and

- application to extend domestic curtilage into the Green Belt will not be permitted.

Extensions to replacement dwellings will only be permitted where the habitable floorspace of the replacement dwelling and the total habitable floorspace of any extensions permitted together with that applied or would not be greater than 30% above the original habitable floor area of the previous dwelling which had been replaced.

Where appropriate, a condition will be imposed to prevent this habitable floorspace limitation from being exceeded through the implementation of permitted development rights.

Extension of a dwelling resulting, from the conversion of a rural building will not be permitted, notwithstanding permitted development rights.

Outside settlements and established areas of development listed in Policy 9.8 and Policy 9.10, the replacement or substantial rebuilding of permanently occupied dwellings will only be allowed subject to the following criteria:

- where the existing dwelling has not been previously extended or where it has been extended by less than 30% above the original habitable floor space:
- the floor space of the replacement dwelling will be no larger than 30% above the original habitable floor space, or
- where the existing dwelling has been extended by more than 30% above the original habitable floor space:
- the replacement habitable floor space of the replacement dwelling will be no larger than the existing habitable floor space.
- the visual mass of the replacement dwelling should be no greater than that of the existing dwelling;
- where the original, existing dwelling is a bungalow it should be replaced by a bungalow; and
- any replacement dwelling will be expected to be located in the position of the existing dwelling except where the local planning authority considers an alternative siting to be more appropriate in green belt or amenity terms.

Policy	Description	HRA Implications
	<ul style="list-style-type: none"> - where appropriate, a condition will be imposed removing permitted development rights to extend the building, use the roof space for habitable purposes and erect walls, fences or further out-buildings. (This policy is not intended to relate to uses created via the re-use of rural buildings).	
NE14: Established Areas of Development and Structures in the Green Belt	Where new building or structures are proposed within the Green Belt, inappropriate development will not be approved expect in very special circumstances. Within established areas of frontage ribbon development included within the Green Belt listed below, planning permission for change of use to residential, new residential development on genuine infill plots, replacement of existing dwellings, or extensions to existing dwellings will be allowed subject to criteria set down in other policies in this plan being satisfied. Relevant frontages are:169-293 Chelmsford Road; 39-47, 51-109 Coxtie Green Road; 1-19 Bellhouse Lane; Between Coppersfield And Greenoaks, Doddinghurst Road (Parkwood); 1-13 (Excluding 2), 21-56 (Excluding 24, 26) Nags Head Lane; The Thorns/The Briars, Ongar Road; 54-88 Billericay Road; 554-664 Rayleigh Road. New building for education and community uses which can demonstrate a requirement for a Green Belt location. Proposals for appropriate sports and recreational facilities will be permitted as long as the proposal preserves the openness of the Green Belt as set out in the National Planning Policy Framework.	<p>No Likely Significant Effect</p> <p>A development management policy relating to established areas of development and structures within the green belt. It does not identify any type, quantum or location of development. This policy is not expected to pose as a likely significant effect and is therefore screened out from further discussion.</p>

Policy	Description	HRA Implications
<p>NE15: Previously Developed Land in Green Belt</p>	<p>Proposals for redevelopment of previously developed sites (brownfield) within the Green Belt will be permitted where redevelopment:</p> <ul style="list-style-type: none"> - contributes towards local housing needs or provides new jobs; - would not have significantly greater impact on the openness of the Green Belt; - improves the setting of the Green Belt through more appropriate landscaping; - provides community benefits to both the new and existing local community; - supplies or improves travel links to nearby existing communities, such as villages; and - contributes to the Borough’s sustainable development principles as set out in other policies in the Plan. <p>The Council will assess the proposed development based on the following:</p> <ul style="list-style-type: none"> - The size, scale, massing and spread of new development compared to the existing; - The visual impact of the development compared to the existing; - The activities / use of the new development compared to the existing; and - The location of the site is sustainable and appropriate to the type of development proposed. 	<p>No Likely Significant Effect</p> <p>A development management policy relating to previously developed land within the green belt. It does not identify any type, quantum or location of development. This policy is not expected to pose as a likely significant effect and is therefore screened out from further discussion.</p>
<p>NE16: Site Allocations in Green Belt</p>	<p>Sites allocated to meet housing needs in Green Belt will be expected to provide significant community benefit, both for surrounding existing communities and those moving into new homes on site.</p> <p>These sites will be de-allocated from Green Belt to allow development to take place and provide new defensible boundaries to protect open countryside for future generations.</p> <p>The extent of development at Dunton Hills Garden Village will be de-allocated from Green Belt, to be set by a separate Masterplan for the garden village.</p>	<p>No Likely Significant Effect</p> <p>A development management policy relating to site allocations within the green belt. It does not identify any type, quantum or location of development. This policy is not expected to pose as a likely significant effect and is therefore screened out from further discussion..</p>

Policy	Description	HRA Implications
<p>NE17: Agricultural Workers Dwellings</p>	<p>New Dwellings Planning permission will only be granted for a new agricultural, horticultural, forestry worker’s dwelling where:</p> <ul style="list-style-type: none"> - evidence has been submitted to the satisfaction of the Borough Council that there is a viable agricultural, horticultural or forestry business need for a permanent dwelling in that location; - there are no suitable alternative dwellings available or could be made available in the locality to meet the needs of the agricultural holding; - that there is a long-term need for agricultural worker dwellings - the size and accommodation levels to be included in the proposed dwelling is commensurate with the needs of the holding; and - the development is in all other respects acceptable against other relevant policies in the plan and the requirements as set out in the NPPF and NPPG. <p>Conditions will be attached to any permission limiting the occupancy to that required for the holding concerned or other agricultural use nearby.</p> <p>Removal of Occupancy Conditions on Existing Dwellings Planning permission will be granted for the removal of a restrictive agricultural worker occupancy concerned or other agricultural use nearby where it can be evidenced that there is no long-term need for an agricultural worker’s dwelling in the locality.</p>	<p>No Likely Significant Effect</p> <p>A development management policy relating to agricultural workers dwellings. It does not identify any type, quantum or location of development. This type of development will be delivered as windfall development. This policy is not expected to pose as a likely significant effect and is therefore screened out from further discussion.</p>

<p>NE18: Re-use and Residential Conversion of Rural Buildings</p>	<p>The Council will support the re-use, conversion or adaptation of rural buildings for other employment generating uses, tourism, leisure or community or residential use provided the development proposal meets all the following criteria:</p> <ul style="list-style-type: none"> - it does not have a greater impact on the openness of the Green Belt and the purpose of including land within the Green Belt than the original or current lawful use; - the new use should not require elements which might conflict with the openness and function of the Green Belt; - the applicant can demonstrate that the building is of permanent and substantial construction; - the conversion of the building would not result in a major or complete reconstruction; and - the proposed re-use should not have an unacceptable detrimental impact on the fabric and character of the building due to unsympathetic changes to or the introduction of features such as windows, door openings and chimneys. <p>Notwithstanding prior approval permitted development rights for the change of use of agricultural buildings of 500 sqm or less, to Class R, the re-use and adaptation of existing rural buildings can play an important role in meeting the needs of rural areas for employment, tourism, leisure and/or community uses. In addition, the re-use of rural buildings for commercial development can support the rural economy by promoting the sustainable growth and expansion of businesses through conversion of existing buildings and diversification of agricultural and other land-based rural businesses. Tourism could be a vital and sustainable source of business for the rural economy and provides employment for local people and therefore contributing to the objective of sustaining vital rural communities. Some buildings could be suitable for businesses connected with tourism, while community uses can make a valuable contribution to local communities in appropriate locations.</p> <p>In the case of traditional rural buildings, the proposed use must be compatible with the historic character and significance, and structural integrity of the building. A historic building assessment of the structures may be required as part of the planning application with the potential for a full historic record to be completed as a condition of the application prior to conversion.</p> <p>Where appropriate, conditions will be imposed removing permitted development rights to extend the property, alter the external appearance, construct buildings or structures (including walls/fences) within the curtilage, and change the use.</p>	<p>No Likely Significant Effect</p> <p>A development management policy relating to the re-use and residential conversion of rural buildings. It does not identify any type, quantum or location of development. This policy is not expected to pose as a likely significant effect and is therefore screened out from further discussion.</p>
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Policy	Description	HRA Implications
	Permission will not be granted for the re-use of an agricultural building erected under Class A of Part 6 of Schedule 2 of the General Permitted Development Order as amended within 10 years of its substantial completion.	
BEXX: Housing Land Allocations	Sites (with potential capacity for 10 or more homes) allocated for residential development over the Plan period 2013-2033 are set out in Figure 7.2, and identified on the Proposals Map. Where indicated, a mix of uses, including residential may be sought or appropriate. Further detail is set out in Appendix 2. Proposals for housing submitted on these allocations in accordance with the phasing indicated, will be approved where the proposed scheme is in accordance with other relevant policies in the Plan. Planning applications in advance of its phasing will only be approved where: <ul style="list-style-type: none"> - early release would not prejudice the delivery of other allocated sites phased in an earlier time period; - the site is required now to maintain a five year supply of deliverable sites; and - infrastructure requirements of the development can be fully and satisfactorily addressed. 	<p>No Likely Significant Effect</p> <p>A development management policy relating to housing land allocations. It does not identify any type, quantum or location of development. This policy is not expected to pose as a likely significant effect and is therefore screened out from further discussion.</p>

Policy	Description	HRA Implications
<p>X: Brentwood Enterprise Park</p>	<p>Land south east of M25 Junction 29, as shown in Appendix XX, is allocated to provide high quality employment development and significant number of jobs. Development proposals should consider the following:</p> <p>Amount and type of development:</p> <ul style="list-style-type: none"> - XX ha of employment land (principally use classes B1, B2 and B8) taking account of market needs along with ancillary and supporting uses. - XXha of landscaping and earthworks to create a buffer and provide improved visual amenity between the site and surrounding land, minimising any amenity impacts. <p>Supporting on-site development:</p> <ul style="list-style-type: none"> - Ancillary uses (e.g. hotel, small shops and eateries). <p>Development principles:</p> <ul style="list-style-type: none"> - Principle landscaping and earthworks to be situated to the south of the site and to remain in perpetuity for non-development uses; - Site is identified as a key gateway location and development should reflect this in terms of design quality; - Consideration of adjoining Local Wildlife Site; - Maintain and enhance Public Right of Way through site; and - Full traffic assessment and Travel Plan to accompany an application. <p>Infrastructure requirements:</p> <ul style="list-style-type: none"> - Early Years school provision; - Access points via M25 Junction 29 and Warley Street (B186) which will require highway improvements; - Bus links; <p>Provision for improved walking and cycling links with West Horndon and Dunton Hills Garden Village.</p>	<p>No Likely Significant Effects.</p> <p>This policy allocates a single development site for employment purposes at the Brentwood Enterprise Park. This allocation has previously been subject to HRA⁷⁶ which enabled this allocation to be screened out alone. In combination impact pathways relating to water quality and air pollution require further investigation.</p>

⁷⁶ AECOM. (January 2018) Habitats Regulations Assessment of Brentwood District Council Draft Local Plan: Preferred Site Allocations Regulation 18 Consultation (January 2018). Brentwood District Council

Policy	Description	HRA Implications
GV1: Dunton Hills Garden Village	<p>The Land east of the A128, south of the A127 and north of the C2C railway line – as illustrated by the red line boundary in Fig xx - is allocated for residential-led development to deliver Dunton Hills Garden Village.</p> <p>The scheme will comprise a mixed-use development of minimum 2500 homes, together with the necessary community, utility and transport infrastructure to support a self-sustaining, thriving and healthy neighbourhood; including an appropriate number of schools; a new village main centre and/or peripheral neighbourhood centre(s); interconnected multi-purpose green infrastructure; a network of active and public transport links; and a mix of housing types that are affordable.</p> <p>Successful development of the site will require:</p> <ul style="list-style-type: none"> - Garden Communities principles to be fully embedded demonstrating how these have informed the detailed masterplan; - A holistic and comprehensive master plan to be established, co-designed with the relevant stakeholders, along with the necessary and proportionate design guide to frame and guide the consistent quality and delivery across the site by contractors; - Proposals to creatively address the key site constraints and sensitively respond to the unique qualities and opportunities afforded by the historic landscape and environmental setting to deliver a distinctive and well-design garden village in line with the ambitious vision and strategic aims and objectives for Dunton Hills; - The production and implementation of a development and phasing plan that demonstrates how delivery will be phased, managed, accelerated and governed and how the legacy assets will be handed over for ongoing legacy operations and maintenance; <<or if we have policy three, can remove here>> - Permission for mixed-use development will be granted subject to the parameters set out in Error! Reference source not found.. 	<p>No Likely Significant Effects.</p> <p>Due to the distances involved, there are no impact pathways present.</p> <p>In combination impact pathways are however considered further within this document.</p>

<p>DV2: Spatial Design of Dunton Hills Garden Community</p>	<p>Development proposals must deliver all the necessary supporting spatial components to address the specific site constraints, potential impacts and opportunities as set out by the strategic aims and objectives and as detailed below:</p> <p>Distinctiveness (I) Development of the masterplan and design guide for the scheme should demonstrate how the new settlement will be designed to be distinctive. It should ensure:</p> <ul style="list-style-type: none"> - Village design that respects the traditions and vernacular of village life and style-essence, while ensuring 21st century conveniences and design by firmly embedding garden city principles and local aspirations; - Dunton Hills village will comprise a number of sub-neighbourhoods, each with their separate character, which come together with an overall clear identity following a coherent vernacular, highly networked street pattern and public realm design; - The distinct qualities and unique character should be informed by the sites landscape setting and heritage features, in line with policy X; and - The new village should be planned around the creation distinct sub neighbourhoods that are informed by the historic setting and knowledge of the site, each with its own distinct character. <p>Density (II) Development of the site should consider setting out a range of appropriate densities across the site to ensure a compact, highly networked walkable and fine-grained environment with a street based vernacular. A density plan should inform the masterplan proposals to demonstrate how appropriate densities will be achieved, while maintaining its feel as a village. Permission will be granted for development that achieves the following urban design principles:</p> <ul style="list-style-type: none"> - Homes with gardens should be predominantly terraced streets, compact and making best use of space. A predominance of sprawling detached housing will not be favoured. - Development proposals should consider a density hierarchy that increase towards the local centres and around public open spaces: the village core should adopt 'town house/Georgian street type' density with heights up to 4/5 stories (45-60 dpha), to ensure a focal area with footfall to make it instantly workable; up to 3/4 stories (30-45 dpha) where residential properties front open spaces and communal village greens and up to 2 story along residential streets. - Densities for residential development along edges of settlements can be a lower density allowing for a small number of larger homes' needs. <p>Architecture (III) Architecture should be informed by a co-designed workshop with the local community.</p>	<p>No Likely Significant Effect</p> <p>A development management policy relating to the spatial design of Dunton Hills Garden Community. There are no linking impact pathways present and as such this policy can be screened out.</p>
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Historic garden villages placed a huge emphasis on the use of high-quality and often local materials. Attention to detail and the use of architects resulted in homes and communities that remain desirable today.

Featuring the application of the highest sustainability standards, innovative use of local and sustainable new materials, and high-quality imaginative architecture, making use of expert craftsmanship. They should have 'postcardability' – a distinct and recognisable character, with imaginative and varied architecture forming part of a collective and harmonious 'whole'.

Materials (III)

Materials should be informed by a co-designed workshop with the local community.

Urban Layout/Public Realm Design (IV)

- The public realm should be an integral part of the wider green infrastructure plan and be informed by site opportunities, such as viewsheds, green infrastructure, existing habitat value.
- Development should be designed so that it does not visually intrude onto the landscape corridor.
- The interface between the green space and the built structures should ensure passive surveillance, with coherent and gradual transitions, and not be over-sized.
- A highly connected network of streets should be designed, taking cues from existing field boundaries to form an accessible, connected and fine grained urban layout with neighbourhoods that are legible and easy to navigate, with a wide range of interlinked uses and generous green spaces, ensuring street blocks are not overly long <<there's a suggested optimum, find and insert>>, as they discourage walking, and often lead to less social interaction;
- Orientations/morphology to take into account the landscape views; aspects should take opportunities for passive heating and cooling;
- Public realm should focus on the importance of the street scene through attractive buildings, public art, street furniture, the use of materials, strong landscaping providing wide pavements and grass/planted verges, tree-lined avenues and where appropriate, incorporation of rain gardens and food production opportunities.

Green Infrastructure (V)

The scheme should present a clear green infrastructure plan that enhances and connects the landscape, incorporating the following design guidelines:

- The scheme proposals should be landscape-led, demonstrating a 'design and build with nature' approach <<could elaborate biophilic design elements; use of natural materials etc.... more work through design workshops needed >>
- The development should retain and incorporate a generous amount of green space for multi-functional recreational use with an aim to ensure at least 50% of land creates a

connected and biodiverse ecological network of multi-functional green infrastructure with a variety of activity nodes and treatments, including public natural parkland, pockets of village greens, local nature reserve, allotment sites, sports pitches and fields and streetscape landscaping, such as tree lined trees and grass verges.

- Some allotments should be created for any residential properties which may not have a garden; creative interweaving of productive landscapes within the GI network will be favourably considered.
- Appropriate amount and depth of green infrastructure screening to mitigate noise and air pollution adjacent to A127, A128, rail tracks.
- Designating a 'Nature Improvement Area' on the eastern boundary with Basildon, to strengthen the Green Belt boundary and improve the landscape, habitat value and environmental quality, maintaining the openness and enhancing biodiversity, thus reinforcing the eastern green belt boundary to provide a woodland buffer, supporting the beneficial purpose and use of the green belt.
- Green spaces should be highly accessible and incorporate universal design measures, and include suitable pathways to allow for walkers, cyclist, and horse riders to ramble through.
- Consideration should be given to integrating rain garden SuDS into both the streetscape and green/blue space within development areas. These may then link into the landscape public realm depending on the detailed topography of the area and ultimately into retention and attenuation ponds

Biodiversity Net-gain and Ecological Connectivity (VI)

- Proposals will need to retain and weave through priority habitats such as significant areas of existing woodland habitat and where relevant reinstate degraded fenland.
- Proposals will need to demonstrate the measures taken to protect mature trees, and where possible, enhance hedgerows, ponds and other environmental features of note, which contribute to the character and biodiversity.
- seek to retain the river course and ponds and to interconnect them to proposed ecological network made up of open spaces and green infrastructure to create multi-functional spaces. Connecting these natural heritage assets gives structure to the site and naturally divides it into potentially varying character areas for development.
- Proposals will need to be designed to minimise the loss of ponds and any wildlife they support, and/or provide appropriate mitigation both surrounding ponds and throughout the site to maintain connectivity between the wildlife populations they support
- Increasing ecological connectivity between existing and surrounding 'living landscape' habitats beyond the development boundary; following Eastlands Spring connecting Thorndon Country Park to Langdon Hills Country Park.

Sport, Recreational, Leisure Public Open Space (VII)

The provision for green space opportunities for recreation and sport must be an integral part of the green infrastructure plan; it should incorporate as a minimum the following provision.

- At least 5 ha shall be used for sports and recreation groups to provide a variety of pitch sizes in line with the 2018 Play Pitch Strategy.
- The green infrastructure plan will account for the creation of varied recreational experiences to appeal to a varied range of users with different interests and age-related preferences.
- Creative incorporation of productive landscapes, providing opportunities of community and informal growing opportunity, to also be used as a learning and teaching resource by the local schools.
- The GI following Nightingale road should incorporate a heritage trail with signage and history information boards.
- Pathways through the GI network will be made of permeable material and follow a coherent treatment throughout the village. The pathways will all connect into a circular walk, with interconnected shortcut routes and be signposted offering directions to key destination points.
- Appropriate number of play spaces shall be incorporated into the green infrastructure plan, with an emphasis on natural play options.

Views (VIII)

- Key views shall be safeguarded and maintained and become distinctive features on the development.
- Development proposals should be accompanied by a viewshed analysis to demonstrate how the urban layout will incorporate safeguarded views.
- Streets and avenues should orientated towards the key views to maintain a landscape corridor out onto the neighbouring open landscapes and to the wider key distant views such as London skyline and Langdon Hills and other identified.
- Visual separation should be achieved on the eastern boundary of the site.

Heritage Features (IX)

Heritage features should be enhanced and incorporated to provide attractive and distinctive features that make a positive contribution to the character of the local area and an attractive setting for development.

- the landscape setting, historic features, names and field patterns and boundaries that are present today, or documented in past accounts. For example, heritage names such as Dunton Ridge, East Horndon Hall, past field names as well as current hill names, given to the site by the golf players, should all inspire how the design of the village develops to make it

- Protection and enhancement where possible of existing public rights of way
- During the construction process, any artefacts found on site shall be recorded, secure and store heritage assets on site for later display
- Incorporate the historic core as part of the DHGV Town Centre
- Development should also aim to retain and integrate remaining and remnant historic features
- There is a clear opportunity for development to benefit from these structural landscape characteristics, helping to bind old with new through retention, incorporation and interpretation of both the original spatial structures and key woodland features.
- Protect listed features during the construction phase and during any retrofitting to make the structures fit for purpose for new uses.

Key development principles should include:

- The retention of all buildings dating from C17-C19 as a complementary historic farmhouse and farmyard group structures
- The retention of open views, foreground of the brook and backdrop of the hillside as part of the complementary rural setting of the historic farm group
- The retention of historic fabric, historic and architectural interest, and complementary fixtures and fittings of all the buildings and the retention of the simple agricultural exteriors and open volumes of the large threshing barns
- Complementary uses for the farm buildings alongside the continuing residential use of the main house, such as farm shop and community uses
- The retention and reinstatement of historic links and visual links between the historic settlement groups, Nightingale Lane, hillside, agricultural setting and estuary, together with new links with similar character to groupings within the proposed new settlements, and
- The retention and reinstatement of hedge boundaries, ponds and other historic rural features within the curtilage and setting where possible.

Social Infrastructure (XI)

The delivery of social infrastructure is underpinned by the Essex County Council Developer's Guide to Infrastructure Contribution (2016).

The garden village should set aside land for future community needs.

- Safeguard xxx ha of land to expand the school should development go beyond 2500
- Safeguard xxx ha of land for a future rapid transport system
- Safeguard xxx ha to respond to the demand for different types of community space, to evolve as communities settle in the area.
- Flexible buildings to respond to demand
- Civic buildings to respond to demand for uses (e.g. church vs community hall, etc).

As a minimum the development shall deliver the education, health facilities, community spaces.

Health Facility (XIII)

- Health facility will need to be part of the community infrastructure, and this should be carefully planned to ensure the integration encourages better healthier behaviours. The facility should focus on wellbeing and prevention and be an exemplar example of integrating diagnosis, treatment and proactive wellbeing onsite, set in a backdrop of nature, where prescribing healthy activity would be made possible by the integration of services.
- Integrating the health facility in proximity to recreation facilities.
- Actively encourages ‘sustainable healthcare’, embedding a design that encourages healthy living, eating, and activity. Design principles should demonstrate the key principles of Centre for Sustainable Health Care including: prevention; patient empowerment and self-care; lean systems; low carbon alternatives.

Educational Facility (XIII)

- Provision for primary and secondary should be provided in accordance with Essex County Council guidelines.

Community Facilities (XIII)

>>do we want to be specific? Feel this needs further workshop input with local community.

Emergency Services (XIII)

<<needs further work with health partners>> A building capable of accommodating a police facility as a base for a new safer neighbourhoods team is to be established in the first phases of development. This building will be in a form to be agreed following consultation with existing community representatives in the area. For firefighting purposes the development will provide water supply and fire hydrants Sports & Recreation.

Village Centre (XII)

- The main village centre should be central to the new community in and around the farmstead designed to be mixed-use, with a range of commercial and community uses along ground floor frontages and a mix of uses on upper floors including residential and small scale employment.
- Agglomerated services of community, retail, Flexible Employment Space. Mix of use classes to adapt to changing circumstances
- Suitable uses and facilities within the village centre.

Activity Nodes an Landmarks (XI)

>>should be in part informed by further site analysis and co design workshops.

Employment (XI)

- Primarily it is envisaged that employment space will be within use classes B1(a) offices, B1(b) research and development, and B1(c) light industry appropriate in a residential area.
- Development within use classes B2 general industrial and B8 storage will focus one. East Horndon and distribution will be supported where they are of a scale, design and form consistent and complementary with the overall character of the Garden Village.
- All employment provision is expected to be provided in appropriate locations on the site and be compatible with the wider residential environment of the Garden Village.
- Flexible business starter and incubation space will be provided as part of the mix of employment. This could include a business hub/centre offering a co-working space for local, small and medium enterprises, startups, entrepreneurs and freelancers in a variety of different units designed to be flexible, attractive and secure.
- Implement a Jobs Brokerage Scheme to ensure that the many new jobs created on site go to local people.

Active Travel (XIII)

- Development should incorporate Active by design measures to make walking and cycling accessible and prevalent and discourage car use for short internal trips, for example changing travel mode behaviours through design; i.e. streets narrow and 'village' in feel; dense network of streets, paths and parks ensures that it is faster and more enjoyable to walk and bike than to drive; less land to streets.
- Innovative public transport options, bearing in mind the topography of the site, making active travel challenging for some; incorporation of electric bike schemes to overcome this impediment.
- Segregated cycle and pedestrian routes should be provided, to encourage more to cycle and feel safe on the streets. These should integrate with quiet way options through green routes where possible.

Gateways and Access (XIII)

- Provision of mitigation measures to ensure only acceptable levels of impact occur to J28 on A127, as a result of predicted traffic generated from the site.
- Traffic calming measures at junctions xxx
- Main roads into the site from the A217 will be designed to slow down the traffic, making it clear that it is now a neighbourhood zone. Boulevard approach to design, with grass medians and verges and trees should be used as a tactic to slow down the traffic and give the road an instant village feel.
- >>insert info on any junction improvements into the site.

Public Transport (XX)

- Development delivers a dedicated bus route from the village to West Horndon station, together with the necessary road and station improvements to accommodate the bus and more usage
- Dedicated bus route taking pupils to nearby secondary school in the early phases of the work
- All houses should be no more than 400 m (10 min walk) to a bus stop
- The necessary West Horndon station improvements to allow for a bus terminus and turnaround, as well as infrastructure for bike storage.

Clean Vehicle Alternatives (XX)

- The transport sector is innovating fast and provision should be planned to future proof transport needs, behaviours. Network of electric vehicle charging points should be designed into the public realm in appropriate locations.
- Design placement proposals should demonstrate how they are suitably placed, do not obstruct pedestrian access, incorporate universal design principles and are discrete as far as possible.
- Proposals should also be incorporating car sharing clubs; EV only development; time limiting car parking in the central locations;
- discrete parking in residential areas; how we dealing with parking? Some prefer off street parking on front gardens leaving streets clean; others advocate for front gardens to be a space for socialising and biodiversity; which approach to be taken here? Should be informed by further design workshop.

Street Hierarchy (XIII)

- The development should be served by an attractive, accessible, networked and safe streets designed so that they promote the safe passage for pedestrians and cyclists along segregate routes.
- The roads will be designed to accommodate an electric bus as well as pedestrians and cyclists to discourage the use of the car for local journeys.
- A pedestrian and cycle connection from the streets to the woodland, linear natural parkland will be required as well as to key destinations such as the village centres, the schools, civic facilities.
- Cul-de-sacs should be an exception; street widths important to allow cycling and not allow the car to dominate, making them pedestrian friendly with opportunities for home zones to establish.
- The road hierarchy shall be designed to:
 - o Provide a legible and permeable framework making it a walkable neighbourhood.
 - o Ensure that vehicle and pedestrian routes are both well overlooked and busy;

- a 20 mile an hour zone within the development.
- street parking???
- Reflect the importance of routes according to the level of anticipated pedestrian, cycle and vehicular flow and the requirements of accessibility for servicing, refuse, emergency access and bus routing;
- materials, space and planting used in streets and at junctions in order to influence both the final character of the place and the movement patterns and priorities by mode; and
- Through an associated network of footpaths and cycle paths, to ensure safe routes to schools and other facilities.
- The access road off the A128 should not over dominate, will be the widest street and so a boulevard approach will be necessary to ensure traffic calming etc.
- Do we want to be specific?? This is more design guide detail: Check parameters:
 - 6.1m-7.3m width (widened on bends to accommodate bus route and on street parking where provided to ensure public transport vehicles are not impeded);
 - 3m shared footway and cycle path where appropriate on each side of the road;
 - Landscaping (including street trees) and street furniture where appropriate;
 - 3m landscaped verges where appropriate;
 - On street parking where appropriate; and
 - Bus stops at regular intervals (400m).

SuDS and Drainage (XX)

- Strategically designed and phased Sustainable Urban Drainage scheme to deal with surface water runoff from the steeper topography, including street verges that double up as rain gardens⁷⁷.

Potable and Non-potable Water (XX)

- >>?? Who is the water authority in the area? Discussion with them might be required?.

Energy (XX)

- All public buildings (e.g. school) to be BREAM excellent or other appropriate schemes??
- Xx % of energy should be generated from renewable resources
- Aim to achieve Zero carbon homes?? (review case studies)

Superfast Broadband (XX)

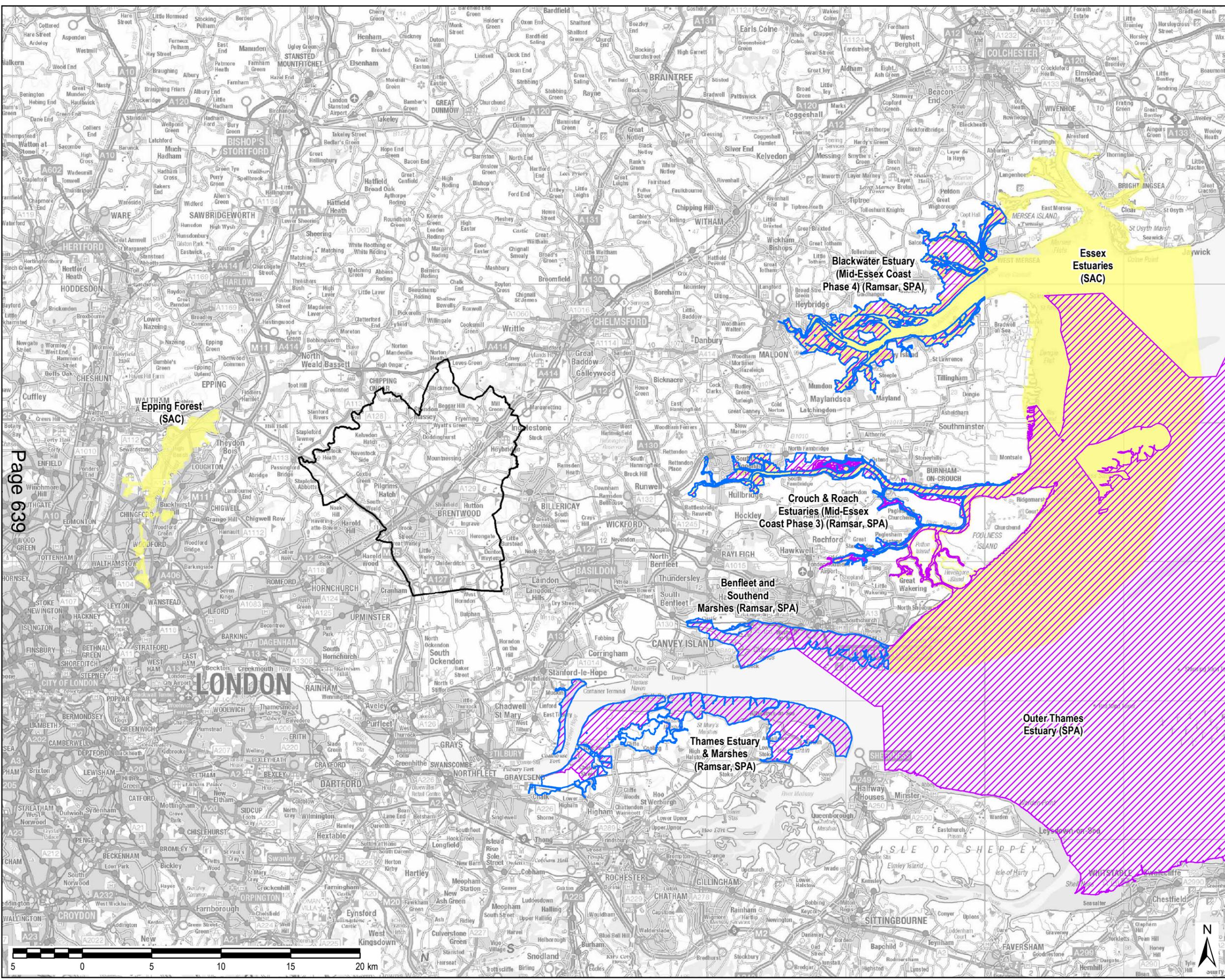
- >>insert requirements from IDP Work.

Housing (XX)

- >>insert IDP requirements
- Design – terraced streets; compact; front gardens
- Mix – tenures, sizes >>insert table from IDP work
- 35% of the scheme dwellings shall be affordable;

⁷⁷ <https://raingardens.info/wp-content/uploads/2012/07/UKRainGarden-Guide.pdf>

Policy	Description	HRA Implications
	<ul style="list-style-type: none"> - innovative ways to deliver affordability; models from abroad (i.e. incremental, leaving interiors up to the choice of home owner); materials used - <<how we dealing with self build plots?? Extracted from halsnead>>Serviced plots for self-build should not come forward until after strategic highways infrastructure has been provided, as the sale of serviced plots will not generate sufficient funds to pay for new roads and it is important not to impede the ability of standard housing development to progress and deliver the roads at an existing infrastructure to ensure that there is sufficient capacity available in order to cope with increased usage. - G&T provision 	
GV3: Design and Delivery of Dunton Hills Garden Community	<p>The design, development and phased delivery of DHGV must accord with all the following principles:</p> <ul style="list-style-type: none"> - The public sector working pro-actively and collaboratively with the private sector to: <ul style="list-style-type: none"> o secure high-quality of place-making in accordance with Policy GV2; o ensure the timely delivery of on-site and off-site infrastructure required to address the impact of these new communities; and o provide and fund a mechanism for future stewardship, management, maintenance and renewal of community infrastructure and assets; - Community and stakeholders involvement in the design and delivery from the outset and the delivery of a long-term community engagement strategy; - Prior to the submission of outline planning applications, developers must submit a supporting statement setting out a sustainable long-term governance and stewardship arrangement for the community assets including Green Infrastructure, the public realm and community and other relevant facilities to be funded by the developer; - A Strategic Masterplan must be developed along with a design guide to guide a coherent development across the allocation site, and illustrate key connections with surrounding GI and employment sites. - Strategic Master Plans and detailed design proposals must be reviewed and informed by the independent Quality Review Panel and be consistent with and adhere to the relevant Design Codes. - Covenants – use to include maintenance of front gardens and public realm (e.g. Blackheath model) <p>A suitable management body will need to be established to manage the assets of the DHGV over the long-term. The most suitable approach should emerge through the design and delivery process.</p>	<p>No Likely Significant Effect</p> <p>A development management policy relating to the design and delivery of Dunton Hills Garden Community. There are no linking impact pathways present and as such this policy can be screened out.</p>



THIS DRAWING IS TO BE USED ONLY FOR THE PURPOSE OF ISSUE THAT IT WAS ISSUED FOR AND IS SUBJECT TO AMENDMENT

- LEGEND**
- Brentwood Borough Boundary
 - Ramsar
 - Special Area of Conservation (SAC)
 - Special Protection Area (SPA)

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Purpose of Issue **DRAFT**

Client **BRENTWOOD BOROUGH COUNCIL**

Project Title **HABITATS REGULATIONS ASSESSMENT OF BRENTWOOD DISTRICT COUNCIL DRAFT (REGULATION 19) LOCAL PLAN: NOVEMBER 2019**

Drawing Title **LOCATION OF EUROPEAN SITES**

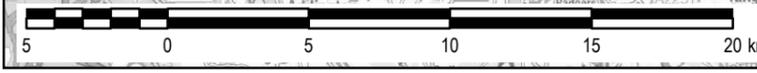
Drawn JW	Checked BB	Approved IHH	Date 25/10/2018
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Drawing Number **FIGURE B1**



File Name: K15004 - Information Systems\60543883 Brentwood HRA\02_Maps\Figure B1 Location of European Sites.mxd

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Brentwood Borough Council

Local Development Plan (LDP): Health Impact Assessment (HIA) (Draft)

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 - 3.1 Screening
 - 3.2 Establishing a need for a HIA
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Figure 4: Typical Household for Brentwood

Figure 5: Brentwood Economy

Figure 6: Brentwood Health and Fitness Profile

Executive Summary:

Following the completion January 2018 Site Selection Regulation 18 Consultation, the Brentwood Planning Policy Team, continue working on the emerging Local Development Plan policies and supporting evidence base in preparation for the Pre-Submission stage of the planning process. During this time it was determined that the LDP would benefit from a Health Impact Assessment (HIA) to ensure that the policies are robust as possible. The purpose of this report is to describe the steps and actions taken as a result of the HIA.

The purpose of a HIA is to:

- Identify the potential health consequences of a proposal on a specific population and/or community; and
- Maximise the positive health benefits and minimise potential adverse effects on health and inequalities

The Assessment found that there were a number of policies from the 2016 LDP which had a positive impact on health, but also identified where there were information gaps (modifications required), and the need for new policies. The HIA of the LDP has helped to demonstrate at a local level the impacts that development can have on health and wellbeing, and where there are opportunities to enhance health gains and mitigate against negative impacts. This in turn has led to the recommendation to further embed HIA in the planning process. **The HIA is a live document and regular updates will be made as required.**

1.0 Introduction:

The natural and built environments play a vital role in the health and wellbeing of the community. The benefits of planning for sustainable and healthy communities can have a positive effect on both established and developing communities which can last for generations. Good planning can result in safer communities, by reducing opportunities for criminal behaviour and stronger community cohesion, improved design and healthier living spaces, assist with reducing risk of obesity, and improving the communities overall physical and mental health. The challenge is determining how to provide sufficient homes for an ever-growing population whilst promoting health and wellbeing.

One means of influencing and promoting health and wellbeing through development is to ensure that the Local Development Plan is sufficiently robust to maximise health gains and where there is a risk of negative impacts, to mitigate against this. Undertaking a Health Impact Assessment (HIA) on Brentwood's emerging Local Development Plan (LDP) to make the LDP more robust. The HIA of the Local Development Plan has resulted in revision and improvements to the policies, inclusion of a Health and Wellbeing Strategic policy, and requirements for major development to submit a HIA along with other supporting documents for consideration at the pre-application stage.

1.1 Purpose of this report:

Following the completion January 2018 Site Selection Regulation 18 Consultation, the Brentwood Planning Policy Team, continue working on the emerging Local Development Plan policies and supporting evidence base in preparation for the Pre-Submission stage of the planning process. During this time it was determined that the LDP would benefit from a HIA to ensure that the policies are robust as possible. The purpose of this report is to describe the steps and actions taken. This report outlines the following:

- A brief description of the Brentwood Local Development Plan (LDP)

- What a Health Impact Assessment (HIA) is
- The process followed in undertaking the HIA
- Finding and actions taken as a result of the assessment
- Additional recommendations

1.2 What is the Brentwood Local Development Plan?

Brentwood Borough Council has been preparing a new Local Plan, a key part of the Brentwood's development plan. The Plan sets out a long-term vision for how the Borough should be developed over the next 15 years and the Council's strategy and policies for achieving that vision. The Plan proposes land allocations for development and planning policies to guide decisions on the location, scale and type of development and changes in the way land and buildings are used.

1.3 Vision:

“Bearing testimony to its market town origins, Brentwood will continue to thrive as a place of commerce and enterprise, strengthened by our proposals to protect existing employment sites, and enhance and develop new sites of economic opportunity, with good connectivity to wider markets.

Brentwood will continue to be a desirable, liveable place to live and visit, providing the ‘best of both worlds’ where the benefits of urban living can be enjoyed; the bustling high street can continue to thrive and provide opportunities for entertainment and culture; and where the surrounding countryside and numerous Country Parks will continue to provide havens to wildlife as well as beautiful and historic locations to explore.

We are a ‘Borough of Villages’ and we will continue to maintain our village character, ensuring development respects and enhances these environmental qualities that give Brentwood its distinctive character. We will encourage this through landscape-led development, where new development

responds to a 'design and build' with nature approach, firming embedding high quality green infrastructure through the public realm to create a seamless transition to our surrounding countryside."

The vision is underpinned by three overarching driving factors:

1. Meeting the Borough priorities as set out in the Corporate Plan – 'A Vision for Brentwood;
2. The Challenges and Opportunities which inform how the borough should better manage development and change; and
3. Meeting Brentwood's housing needs

1.4 Strategic Objectives and Policies:

The 2016 iteration of the LDP consisted of a number of Strategic Objectives which the policies within the Plan aimed to support. These Strategic Objectives were revised from 13 Strategic Objectives to 4 Strategic Objectives. These policies are split into two types – spatial and development management policies. The new Strategic Objectives within the Publication LDP are:

1. SO1: Managing Growth
2. SO2: Deliver a Healthy and Resilient Built Environment
3. SO3: Deliver Sustainable Communities with Diverse Economic & Social-cultural Opportunities; and
4. SO4: Deliver Beautiful, Clean and a Functional Natural Environment

Under each of these Strategic Objectives are a number of policies which will be used to inform planning application decisions. Each of these policies have been evaluated from a Health and Wellbeing perspective, which is described in greater details throughout this report. Appendix 1 includes a table of the evaluation of each of the policies for the 2016 LDP (Draft Local Plan) and 2018 LDP (Publication Local Plan). As changes are

made to the LDP throughout the process, this table will be updated to reflect any changes made from a Health and Wellbeing perspective.

The new LDP framework was informed by the revised NPPF (2018), which has the principals of healthy, inclusive, and sustainable developments embedded throughout the Framework. The revised LDP Framework is illustrated below in Figure 1.

Figure 1: LDP Framework

Insert to show: LDP Figure 1.1 (Document Structure)

1.5 National Planning Policy Framework (NPPF, 2018)

The Local Development Plan must be consistent with the National Planning Policy Framework (NPPF). The NPPF recognises that the planning system can play an important role in facilitating social interaction and creating healthy, inclusive communities. The recent update to the NPPF (2018) has made it clear their priorities in ensuring Plans are developed in such as way that they promote health and wellbeing as outlined in Chapter 8, para 91-95.

2.0 What is a Health Impact Assessment (HIA)?

A Health Impact Assessment (HIA) is a practical approach that seeks to assess how a proposal will impact on a person's or communities health. HIA is typically used to assess the likely significant specific health impacts and allow an assessment of the overall health impacts of proposals be that a strategy or specific development. Health is affected by a number of determinants including, but not limited to, transport, housing, education, environment and economic activities. The analysis using HIA results in recommendations that can inform developers and decision-makers.

2.1 The purpose of a HIA is to:

- Identify the potential health consequences of a proposal on a specific population and/or community; and
- Maximise the positive health benefits and minimise potential adverse effects on health and inequalities

There are a number of HIA tools available. These tools all follow a similar process which include:

1. Screening: identify whether or not an HIA would be useful;
2. Scoping: planning the HIA;
3. Assessment: identifying groups / populations affected and quantifying health impacts;
4. Recommendations: suggesting practical actions to promote positive health and minimise negative effects;
5. Reporting: presenting the results from the HIA; and
6. Monitoring and evaluating: determining the HIA's impact on the decision and health status.

3. Health Impact Assessment Process

3.1 Screening:

The screening stage considers the need for and type of HIA required

3.2 Establishing the need for an HIA:

While there are no statutory requirements to undertake an HIA when preparing a Local Plan, national and regional policies and local strategy all recognise the important

connections between planning and the health and wellbeing of communities, and led to the decision to proceed with an HIA:

National Planning Policy Framework (2018) para 91 states:

“Planning policies and decisions should aim to achieve healthy, inclusive and safe places which:

- a. Promote social interaction, including opportunities for meetings between people who might not otherwise come into contact with each other – for example through mix-used developments, strong neighbourhood centres, street layouts that allow for easy pedestrian and cycle connections within and between neighbourhoods, and active street frontages;*
- b. Are safe and accessible, so that crime and disorder, and the fear of crime, do not undermine the quality of life or community cohesion – for example through the use of clear and legible pedestrian routes, and high-quality public space, which encourage the active and continual use of public areas; and*
- c. Enable and support healthy lifestyles, especially where this would address identified local health and well-being needs – for example through the provision of safe and accessible green infrastructure, sports facilities, local shops, access to healthier food, allotments and layouts that encourage walking and cycling”*

Planning Practice Guidance states:

“Local planning authorities should ensure that health and wellbeing, and health infrastructure are considered in local and neighbourhood plans and in planning decision making. Public health organisations, health service organisations, commissioners and providers, and local communities should

use this guidance to help them work effectively with local planning authorities in order to promote healthy communities and support appropriate health infrastructure.”

Essex Design Guide:

“The health and wellbeing theme was established to recognise how the positive characteristics and qualities of an environment can help people to achieve and experience better quality lifestyles.”

Brentwood’s Health and Well-being Strategy:

“Growing from a market town to the diverse economy it is today, future development should capitalise on this evolution ensuring not only a balance of diverse employment opportunities for all - adapting to a changing economic context - but that vibrant hubs of economic and social-cultural activity evolve to provide attractive, connected, walkable, lively and stimulating destinations that provide the necessary facilities, recreation opportunities and services required to sustain healthy communities.”

3.3 Selecting an HIA Approach:

There are three main types of HIA:

1. Prospective HIA – at the start of the development of a project proposal, or plan
2. Concurrent HIA – runs alongside the implementation of the project (or policy)
3. Retrospective HIA – assesses the effect of an existing project or policy and can be used as an evaluation tool. Retrospective assessments can also be made of unexpected events, as a way of learning lessons for future similar events.

Within any of the above, HIA can take one of the three different forms, depending on the focus and the time and resources available:

1. Desktop HIA – encompasses a small number of participants around the table using existing knowledge and evidence to assess a proposal, policy, or plan.
2. Rapid HIA – establishing a small steering group and often uses the approach of a participatory stakeholder workshop. This typically involves a brief investigation of health impacts, including a short literature review of quantitative and qualitative evidence and the gathering of knowledge and further evidence from a number of local stakeholders.
3. Comprehensive HIA – in-depth analysis, with extensive literature searches and collection of primary data.

Often, however, a HIA fits in between two of these categories as the approach taken will be determined by the nature of the proposal, the timescales involved and the human, organisational and financial resources available to undertaking the process.

The Planning Policy Team decided to undertake a Desktop HIA of the Local Development Plan because:

- The Council wanted to ensure compliance with the new NPPF (2018) and PPG which highlights the importance of including elements of health and wellbeing throughout the policies within a Local Plan as well as the commitments made by the Essex Planning Officers Association (EPOA) regarding HIA.
- There was existing knowledge and evidence to inform the HIA.
- The need to take into account a number of underpinning policies within a short time frame made workshops impractical and the planned wider consultation of the Local Development Plan as required under Regulation 19 of the Town and Country Planning (Local Planning)(England) Regulations 2018.

4. Health Impact Assessment

4.1 Scoping:

This step defines the scope and scale of the HIA. Table 1 below highlights the steps involved and the Councils approach.

Table 1: Scoping – Steps and Approach

Steps	What's involved	Councils Approach
Purpose	Establishing the terms of reference, roles and responsibilities and agreed plan for the HIA	Roles and responsibilities were agreed
Timescales	Establishing the decision-making timescales of the proposal to ensure the HIA can have an opportunity to inform decisions.	HIA was produced alongside the review of the LDP policies in preparation for Regulation 19.
Geographical Boundaries	Understanding of the geographical boundaries of the HIA.	Brentwood Borough
Resources	Clear understanding of the financial and time resources available for the purpose of carrying out the study	Due to limited financial resources and availability of in-house knowledge, resources were limited to Officers time.
Internal and External Support	Refers to the commissioning of the HIA to external resources for those studies which are more in-depth.	Inter-department resources were utilised and well as assistance from Essex County Council.
Type of Assessment	Identifying which of the three assessment types – Desktop, Rapid,	Given time and resource constraints, as well as the level

Steps	What's involved	Councils Approach
	or Comprehensive – is most suitable given the purpose, timescales and resources available.	of detail required a Desktop approach was deemed most appropriate.

5. Appraisal:

This stage is focused on information gathering about the potential nature, size, likelihood and distribution of the proposal’s health impacts. It also provides an opportunity to suggest possible ways of maximising the health benefits and minimising the risks, particularly to those whose health may be most vulnerable or the most disadvantaged population groups. It also provides an opportunity to identify and suggest actions that might address ‘gaps’ in the proposal or plan.

5.1 Summary of Evidence used to inform Brentwood’s Local Development Plan:

Table 2 below outlines the various key pieces of evidence used to help form the policies within the LDP.

Table 2: LDP Evidence Base

Category	Title	Date Published
Economy	Economic Futures 2013-2033	January 2018
	Retail and Commercial Leisure Study	December 2014
	Heart of Essex Economic Futures	June 2012
	Employment Land Review	September 2010
Environment	Green Belt Assessment:	October 2018

Category	Title	Date Published
	Parts 1-3	
	Landscape Review	October 2018
	Green Infrastructure Strategy	September 2015
	Habitats Regulations Assessment	January 2018
	Surface Water Management Plan for Brentwood Borough	January 2015
	Renewable Energy Study	April 2014
	Local Wildlife Sites Review	December 2012
	Mid Essex Landscape Character Assessment	September 2006
Housing & Demography	Strategic Housing Market Assessment (SHMA) Part I	October 2018
	Strategic Housing Market Assessment (SHMA) Part II – Objectively Assessed Need for Affordable Housing	June 2016
	Greater Essex Demographic Forecast 2012-2037 (Phase 7)	May 2015
	Heart of Essex Housing Growth Scenarios	June 2012
	Strategic Housing Land Availability Assessment (SHLAA)	October 2011
	Brentwood Gypsy and	October 2017

Category	Title	Date Published
	Traveller Accommodation Assessment	
	Viability Assessment	October 2018
Site Assessment	Site Assessment Methodology and Summary of Outcomes	January 2018
	Housing and Employment Land Availability Assessment (HELAA)	October 2018
Transport	Transport Assessment	October 2018
Leisure, Recreation & Town Centres	Open Space, Sport and Leisure Needs Assessment	August 2016
	Play Pitch Strategy (PPS)	October 2018
	Golf Course Needs Assessment	October 2018
	Brentwood Borough Council Leisure Strategy	(In development)
	Brentwood Town Centre Regeneration Strategy	May 2010
	Hotel & Visitor Accommodation Futures Study	April 2008

5.2 Brentwood Population Health Profile:

5.2.1 Geographic Characteristics of Brentwood:

Brentwood Borough is located in the south-west of Essex and east of Greater London. The Borough is approximately 15,300 hectares. The Borough is centred on the market town of Brentwood, which is surrounded by some suburban areas and villages set

amongst the Essex countryside. The Borough is only 20 miles from Central London with strong transport links, including the current development of Crossrail, into London. The Borough is 89% green belt, giving the community ample access to open green space. The cost of a house in Brentwood cost an average £320,000 which is £100,000 higher than the average house price within England. Despite this, approximately 80% of the population own their own home. Brentwood is one of the most affluent areas in England, within the least deprived 10% of the country.

Figure 2: Geographic Characteristics of Brentwood:

Insert to show:

- Location within Essex
- Size of Borough
- proximity to London
- affluent vs deprivation

5.2.2 Brentwood's Population Profile:

The population of Brentwood in 2011 was 73,601 (Census), of which approximately 70% live within Brentwood Town. The 2014 mid-year population estimates show's that this has increased to 75,600. A large portion of the population are retired with an aging population trend projected to continue. The proportion of the population from black and minority ethnic groups in the borough is well below average for the Eastern region and England. The largest non-white minority ethnic group is made up of Asian origins.

Figure 3: Brentwood's Population Profile:

Insert to show:

- Current population of Brentwood
- Age profile and life expectancy

- Ethnicity

5.2.3 Typical Household for Brentwood:

There are just over 32,000 homes in Brentwood Borough. The main property type is detached and semi-detached houses, which at almost 63% total stock is higher than the national level (53%). The main property size of stock is 3-bedrooms (25%) and 4-bedroom homes (23%). House prices in the borough are very high. This can cause issues preventing people from buying homes with entry level housing often too expensive for many newly forming households and the need for a significant deposit.

There is an established Gypsy and Traveller community in Brentwood. Local Planning Authorities must identify the need for pitches through a Gypsy and Traveller Accommodation Assessment (GTAA) to ensure this need is met. According to the Brentwood GTAA Need Summary during the period of the Local Plan, the borough will need to provide an additional 11 pitches, which the borough is planning to provide.

Figure 4: Brentwood Housing Stock

Insert to show:

- Typical housing stock
- Typical household profile
 - Comparison to the rest of Essex
- Home ownership vs rented accommodation
 - Comparison to the rest of Essex
- Average cost of a home vs average rent
- Travellers Population

5.2.4 Brentwood Economy:

Brentwood Borough has a successful local economy, providing over 30,000 jobs. Banking and finance are the main business sector followed by distribution/hotel/restaurants and public service. Office employment areas are mainly in Brentwood town centre, Brentwood station and Warley Business Park. Despite the Borough's rural character employment in agriculture is below the national average, as is manufacturing. Three quarters of the Borough population is of working age. This proportion has fallen over time as the population ages. There continues to be a rise in the number of people of working age in the Borough, but a disproportionate rise in the number of older people.

Brentwood has four rail stations – Ingatestone, Shenfield, and Brentwood stations on the Great Eastern Main line to London Liverpool Street, and West Horndon station on the London Fenchurch Street to Southend. Shenfield is also one of the future Crossrail stations. The borough is also well connected by a number of major roads such as the M25, A127, A12, and A13. There is a very high car ownership compared to the national average.

Figure 5: Brentwood Economy

Insert to show:

- Employment vs unemployment rate
- Average gross income per household
- Car ownership (and number of cars per household)
- Child poverty

5.2.5 Brentwood Health and Fitness Profile:

The health of people in Brentwood is varied compared with the England average, however life expectancy for both men and women is higher to the England average. According to Public Health England (2017), the key factors of Brentwood residents are:

- At year 6, the number of children classed as obese was 14.0%, which is lower than the regional figure of 17.9% and below the national average of 20%.
- Estimated levels of adult excess weight and smoking are lower than the regional and national averages.
- Death caused by CVD for under 75's is 53.2%, compared to the England average of 73.5%.
- Percentage of 16-64 year olds in employment is 72.3%, lower than the regional of 77.2% and national average of 74.4%.
- GCSE attainment is 69.3%, above the national average of 57.8%.

The Public Health England definition for physical activity states that people should participate in 150 minutes or equivalent of at least moderate intensity activity per week. Based on this definition 21.8% of adults within Brentwood are doing enough physical activity to benefit their health (i.e. three times or more times per week), the second highest in the county and above the national average of 17.6%.

Table 3: Physical Active vs Inactive rates

Rate	Brentwood	Essex	England
% Active	67.6%	61.6%	61.8%
% Inactive	25.1%	26.3%	25.7%

Figure 6: Brentwood's Fitness Profile

Insert to show:

- Percentage of those involved in a sport
- Most popular sports within Brentwood
- Percentage of those participating in 30 minutes of physical activity at least once a week or more

5.3 Assessment of Policies:

Applying the Wales Health Impact Assessment tool, the Local Development Plan and all the underpinning policies were assessed according to the chapters found within the LDP framework:

- Spatial Strategy – Vision and Strategic Objectives;
- Managing Growth;
- The Built Environment;
- Sustainable, Healthy and Prosperous Community;
- Natural Environment; and
- Site Allocations

The Health Impact Assessment table found in appendix 1 is organised based on the chapters found within the 2018 emerging LDP Framework, as identified in section 1.4 of this report

The policies were assessed based on the following key:

Table 4: Coding System Use

Description	Symbol
Those policies that make a significant contribution to the overall health and wellbeing community	(++)
Those policies that make a positive contribution to the overall health and wellbeing of the community	(+)
Those policies which do not affect health and wellbeing – neither positive or negative	(N)
Those policies which have a minor negative impact on health and wellbeing which should be considered for review	(-)
Those policies which have significant negative impact on the health and wellbeing of the community and require review	(--)

Details outlining the impacts of the draft LDP policies on health and wellbeing can be found in appendix 1. At the time this assessment was being conducted the Brentwood Planning Policy team were updating policies in preparation for a Regulation 19th Pre-Submission Consultation of the Local Development Plan. The 2016 Draft Local Plan and previous consultation responses were used to assist in informing the development of the Health Impact Assessment. In addition to changes being made to existing policies, new policies were identified. These new policies are identified as such within the table found in appendix 1.

Where a policy has a score 'N/A' this indicates that this policy did not exist in that version of the LDP. For the 2016 version those scored as 'N/A' were new policies which serve the purpose of filling an information gap. In the situation where 'N/A' is listed under the 2018 LDP, it indicates that this policy no longer exists, and in most cases has been included as part of a new policy.

5.4 Roles and Responsibilities

The following departments within the Council and external groups were also consulted with to ensure health and wellbeing was embedded throughout the Local Development Plan:

- Assets;
- Corporate Health & Safety;
- Community Safety;
- Community Services;
- Environmental Health;
- Finance;
- Housing;
- Planning Development Management;
- Waste/Refuse; and

- Active Brentwood.

6. Findings:

The HIA process highlighted where there were possible gaps in policies requiring either additional work / evidence to strengthen the policy and/or the creation of new policies. The assessment also helped to identify where there were no gaps and thus needed no changes. A more detailed key appraisal of finding of the policies can be found within appendix 2. The overall findings were:

- The LDP Framework was restructured to ensure Health and Wellbeing, Inclusive Developments, Environmental Protection, and Sustainable Developments were a cross-cutting theme throughout the LDP and in line with the revised NPPF (2018);
- The 2016 LDP consisted of a number of policies that had a positive score on health and wellbeing, although information gaps were identified and as a result, new policies were created, such as assessing energy infrastructure, education facilities, and three additional Dunton Hills Garden Village section.
- Specific policies related to health and wellbeing were included in the LDP to strengthen the importance of health and wellbeing throughout the Plan; and

It is important to note that the LDP policies are supported and enhanced by additional national and local policies, such as Building Regulations, Essex Design Guide, and Licensing Policy, and so on which in themselves have been developed to benefit the community. These wider policies and regulations along with the National Planning Policy Framework were not considered as part of this HIA.

In response to the findings of the HIA revisions were made to the LDP. Some of the key changes made to the LDP were:

- Embedding health and wellbeing throughout the LDP;
- Restructuring the LDP Framework so that it was aligned with the principles of sustainable development – environmental, social, and economical;
- Including a Strategic Health and Wellbeing Policy and a Health Impact Assessment Policy to highlight the importance of health and wellbeing to those wishing to develop and invest in the borough;
- Ensuring strong support for active travel through improved access to cycle and walking paths, car limited policy;
- More in-depth policies were established for Dunton Hills Garden Village, to ensure this development takes advantage of the Garden Village Principles, that design strategies are used to create a sense of place / community, limit environmental impacts, and promote a health throughout the development.

7. Recommendations:

As a result of the HIA process, in addition to changes being made the LDP policies to ensure health and wellbeing is embedded throughout the LDP, the following additional recommendations / actions will be carried out:

- Inclusion of a Health Impact Assessment policy in the LDP requiring all major developments conduct a HIA (included as part of a major application check list and required at the pre-application stage) and encouraging minor developments to voluntarily prepare a HIA to ensure all potential health impacts have been considered. Minor changes to the Promoting Health and Wellbeing policy may be required following the Regulation 19 Pre-Submission consultation, as the EPOA is currently in the process of updating the HIA Guidance Note which is expected to come into effect in December 2018. Once the updated EPOA HIA Guidance

Note has been published, if any additional recommendations and/or requirements are listed these will be updated within the LDP and HIA if needed;

- Ongoing joint working with both internal and external departments such as the Active Brentwood Board and Health and Wellbeing Board;
- Review of the HIA in 5 years at the same time as the review of the LDP, and make the necessary changes to policies in regards to improving the health and wellbeing of the community and natural environment within the borough.

8. Conclusions:

In order for the borough to meet its need in regards to housing, employment, and the associated infrastructure, development within the borough is unavoidable. One of the objectives of the LDP is to ensure that development and growth are carefully planned in order to optimise the benefits for the community and environment and to mitigate any negative impacts.

As the HIA of the Brentwood Local Development Plan (LDP) has shown, the undertaking of the HIA has not only identified and addressed areas where there were policy gaps in the LDP, it has also contributed to assurances that many of the underpinning policies and planning processes had already taken into account the relationship between planning and health, thus requiring no modifications.

The HIA of the LDP has helped to demonstrate at a local level the impacts that development can have on health and wellbeing, and where there are opportunities to enhance health gains and mitigate against negative impacts. This in turn has led to the recommendation to further embed HIA in the planning process. **The HIA is a live document and regular updates will be made as required.**

9. Next Steps:

This HIA supports the Pre-Submission version of the Brentwood LDP which is subject to public consultation (Regulation 19). Following the consultation process the Council will review and consider the consultation responses received prior to submitting the LDP to the Secretary of State for Communities and Local Government for Examination in Public (EiP) by an independent Planning Inspector. The HIA will be updated to reflect any changes made to the LDP before it is submitted to the Secretary of State.

Following the EiP, the Council will review the Planning Inspector's report and make any necessary changes as identified through the examination process. The HIA will be revisited at this stage and any changes made to the LDP will be reflected in a further update of the HIA prior to adoption of the LDP.

Appendix 1: Health Impact Assessment of the 2016 and 2018 Local Development Plan

Category	Policy Name	2016 LD Policies Impact on Health	Changes made to the 2016 Draft Policy (if needed) related to Health and Wellbeing	Justification for changes (if made)	Changes Impact on Health (2018)
Spatial Vision, Strategic Objectives and Strategy	Managing Growth (new)	N/A			(++)
	Deliver a Healthy and Resilient Built Environment (new)	N/A			(++)
	Deliver Sustainable Communities with Diverse Economic & Social-cultural Opportunities (new)	N/A			(++)
	Deliver Beautiful, Biodiverse, Clean and a Functional Natural Environment (new)	N/A			(++)
Managing Sustainable Growth					
	Sustainable Development (new)	N/A			(++)
	Managing Growth	N/A			(++)
	Construction Management	N/A			(+)
	Monitoring	N/A			(N)
Chapter 5 - The Built Environment					
	Housing Growth (new)	N/A			(N)
	Housing Type, Mix, Size and Tenure / Housing Mix	(++)			(++)
	Residential Density	(N)			(N)

Category	Policy Name	2016 LD Policies Impact on Health	Changes made to the 2016 Draft Policy (if needed) related to Health and Wellbeing	Justification for changes (if made)	Changes Impact on Health (2018)
	Protecting the Existing Housing Stock	N/A			(+)
	Specialist Housing / Specialist Accommodation	(+)			(+)
	Affordable Housing	(+)			(+)
	Housing Space Standards / Residential Space Standards	(N)			(N)
	Gypsy and Traveller	(N)	Consideration is needed to identify which sites have the capacity to be intensified and over what period of time, as well as identify what is the maximum density to ensure overcrowding does not occur.	The Gypsy and Traveller policy was split into five policies to address specific situations experienced within the borough. There is often a conflict between the green belt policies, the location of traveller pitches, and borough's ability to meet its need. The five policies aim to resolve this so that when a need for additional pitches is identified planning permission can be granted within a specific criteria.	N/A
	Provision for Gypsies and Travellers (new)	N/A			(N)
	Regulating suitable existing traveller sites (new)	N/A			(+)

Category	Policy Name	2016 LD Policies Impact on Health	Changes made to the 2016 Draft Policy (if needed) related to Health and Wellbeing	Justification for changes (if made)	Changes Impact on Health (2018)
	Proposals for Gypsies, Travellers and Travelling Showpeople Sites on Unallocated Land Outside Development Frameworks (new)	N/A			(N)
	Safeguarding permitted sites (new)	N/A			(N)
	Sub-dividing Pitches or Plots (new)	N/A			(+)
	Sustainable Construction and Efficient Resource Management	(++)		This policy was split into two - Sustainable Construction and Efficient Resource Management, and Carbon Reduction, Renewable Energy and Water Efficiency - to allow for ease of reading and applying the policy where applicable.	(++)
	Carbon Reduction, Renewable Energy and Water Efficiency (new)	N/A			(++)
	Establishing Low Carbon and Renewable Energy Infrastructure Network (new)	N/A			(++)
	Assessing Energy Infrastructure (new)	N/A			(+)
	Improving Energy Efficiency Existing Dwellings (new)	N/A			(++)

Category	Policy Name	2016 LD Policies Impact on Health	Changes made to the 2016 Draft Policy (if needed) related to Health and Wellbeing	Justification for changes (if made)	Changes Impact on Health (2018)
	Managing Heat Risk (new)	N/A			(++)
	Sustainable Drainage	(++)			(++)
	Communications Infrastructure	(+)			(+)
	Connecting New Developments to Digital Infrastructure (new)	N/A			(+)
	Creating Successful Places (new)	N/A			(++)
	Responding to Context (new)	N/A			(+)
	Permeable and Legible Layout (new)	N/A			(++)
	Building Design	(+)	Policy could include something about using design to ensure the development of inclusive environments.		(++)
	Paving Over Front Garden (new)	N/A			(N)
	Designing Landscape and the Public Realm (new)	N/A			(++)
	Open Space in New Development	(+)			(+)
	Open Space, Community, Sport and Recreational Facilities	(++)			(++)
	Green Infrastructure / Green & Blue Infrastructure	(++)	Policy name change from Green Infrastructure to Green & Blue Infrastructure		(++)
	Access to Nature (new)	N/A			(++)

Category	Policy Name	2016 LD Policies Impact on Health	Changes made to the 2016 Draft Policy (if needed) related to Health and Wellbeing	Justification for changes (if made)	Changes Impact on Health (2018)
	Community Food Growing (new)	N/A			(+)
	Protecting Land for Gardens (new)	N/A			(N)
	Conservation and Enhancement of Historic Environment	(N)			(N)
	Listed Buildings	(N)			(N)
	Local List (new)	N/A			(++)
	Conservation Areas	(+)			(+)
	Scheduled Monuments and Archaeological Remains	(N)			(N)
Chapter 6 - Sustainable, Healthy and Prosperous Community					
	Strong and competitive Economy (new)	N/A			(++)
	Job Growth and Employment Land (new)	N/A			(N)
	Employment Land Allocation	(+)			(+)
	Development and Expansion of Business Space (new)	N/A			(+)
	Protection of Business Space (new)	N/A			
	Employment Development Criteria (new)	N/A			(+)
	Supporting the Rural Economy	(+)			(+)

Category	Policy Name	2016 LD Policies Impact on Health	Changes made to the 2016 Draft Policy (if needed) related to Health and Wellbeing	Justification for changes (if made)	Changes Impact on Health (2018)
	New Retail and Commercial Leisure Development / Retail and Commercial Leisure Growth	(+)	Poicy name changed		(+)
	Retail Hierarchy and Designated Centres (new)	N/A			(+)
	Brentwood Town Centre	(+)			(+)
	Mixed Use Development in Designated Centres (new)	N/A			(++)
	Primary Shopping Areas (new)	N/A			(+)
	Non-Centres Uses (new)	N/A			(+)
	Night Time Economy (new)	N/A			(++)
	Protecting and Enhancing Community Assets (new)	N/A			(++)
	Infrastructure and Community Facilities / Securing new infrastructure and facilities	(+)			(+)
	Education Facilities (new)	N/A			(+)
	Buildings for Institutional Purposes	(+)	policy could be strengthened by including text about ensuring design and location are utilised to create an inclusive environment with the existing community.	This policy was split into two - Education Facilities (new) and Building for Institutional Purposes as recommended by ECC.	(+)

Category	Policy Name	2016 LD Policies Impact on Health	Changes made to the 2016 Draft Policy (if needed) related to Health and Wellbeing	Justification for changes (if made)	Changes Impact on Health (2018)
	Healthy Planning (new)	N/A			(++)
	Promoting Health and Wellbeing (new)	N/A			(++)
Chapter 7 - Natural Environment	Conserving and Enhancing the Natural Environment (new)	N/A			(+)
	Recreational Disturbance Avoidance and Mitigation Strategy (RAMS) (new)	N/A			(++)
	Tree, Woodlands, Hedgerows (new)	N/A	This policy has been created to merge the previous 2016 LDP policies Landscape Protection and Woodlands, and Wildlife and Nature Conservation.		(++)
	Wildlife and Nature Conservation	(++)	This policy has been renamed / added into a new policy named Trees, Woodlands, Headerows.		N/A
	Landscape Protection and Woodland Management	(+)	This policy has been renamed / added into a new policy named Trees, Woodlands, Hedgerows.		N/A
	Thames Chase Trust Community Forest	(++)			(++)
	Green Infrastructure (new)	N/A			(++)
	Air Quality	(+)			(+)
	Flood Risk	(+)			(+)

Category	Policy Name	2016 LD Policies Impact on Health	Changes made to the 2016 Draft Policy (if needed) related to Health and Wellbeing	Justification for changes (if made)	Changes Impact on Health (2018)
	Contaminated Land and Hazardous Substances	(+)			(+)
	Contaminated Land and Hazardous Substances	(+)			(+)
	Green Belt	(+)			(+)
	New Development, Extension and Replacement of Buildings in Green Belt	(N)			(N)
	Established Areas of Development and Structure in the Green Belt	(N)			(N)
	Previously Developed Land in the Green Belt	(+)			(+)
	Site Allocations in Green Belt	(-)	need to include that the de-allocation of GB sites will be determined based on appropriate evidence base to ensure minimal harm to the to the natural environment and most sustainable locations for new developments		(N)
	Agricultural Workers Dwellings	(N)			(N)
	Re-Use and Residential Conservation of Rural Buildings	(+)			(+)
Dunton Hills Garden Village					

Category	Policy Name	2016 LD Policies Impact on Health	Changes made to the 2016 Draft Policy (if needed) related to Health and Wellbeing	Justification for changes (if made)	Changes Impact on Health (2018)
	Dunton Hills Garden Village	(N)	Consider making reference to the Health and Wellbeing Policy given that the development will provide more than 50 units. Also, include some of the elements that will be considered within the Masterplanning process that will ensure a healthy community such as cycle paths, walkable neighbourhoods, design elements to improve the inclusiveness of the community.	The single policy on Dunton was considered sufficient and additional policies were identified as being needed. This policy has been spilt into three policies with the overarching themes of garden village principals, spatial design, and management specific for the Dunton Hills Garden Village. Note that these policies are also sign posted to the relevant LDP core policies.	N/A
	Dunton Hills Garden Village - Policy 1 (Garden Village Principals) (new)	N/A			(+)
	Dunton Hills Garden Village - Policy 2 (Spatial Design)(new)	N/A			(+)
	Dunton Hills Garden Village - Policy 3 (Management)(new)	N/A			(+)

Appendix 2: Key Appraisal Findings

The Health Impact Assessment process was structured around the 2018 chapter structure of the LDP as outlined in section 5.3 Assessment of Policies of this report. This identified gaps in the policies, policies that have positive impacts on health, and those policies that could be further enhanced to improve health outcomes. Section 6.0 provides a brief summary of the assessment and section 7.0 outlines the actions that were taken. This appendix provides greater detail of the process undertaken.

(i) Strategic Policies:

These strategic policies were established as they apply to all development in the Borough. The Plan's vision, strategic objectives and planning policies are all underpinned by the spatial strategy. The Spatial Strategy Policies within the LDP set out the aims of the Strategy. The Strategic and Development Management Policies provide the framework for this to be delivered. It was felt that this new document structure and framework ensures that the overarching spatial strategy aims – transit-oriented growth, Developing Naturally and Sustainably and Healthy Communities – were considered throughout the LDP.

(ii) Managing Sustainable Growth

Development of any kind can have an impact on health and wellbeing. The policies found within the LDP aimed to promote healthy, inclusive, and sustainable developments. The Managing Sustainable Growth policies set out how sustainable development is to be achieved, the optimal locations to ensure accessible and sustainable growth, and what development proposals must respond to.

New policies included to ensure sustainable development is made a priority are:

- Sustainable Development;
- Managing Growth;
- Construction Management; and
- Monitoring

(iii) Planning for Healthy and Resilient Built Environment

These policies focus on how developments can be more efficient and resilient so that the borough can adapt better to changes as a result of climate change and other treats. Resilience-building strategies can be considered to be 'reactive' or 'proactive'. A reactive approach focuses on mitigating consequences, maintaining stability and the status quo, whereas a proactive approach focuses on change and adaptation and looks more towards addressing long term stresses. Both approaches are incorporated in the LDP.

There were a number of new policies established within this chapter to ensure information gaps were addressed. Some of the new policies which were established to strengthen this chapter include:

- Sustainable means of travel and walkable streets;
- Establishing Low Carbon and Renewable Energy Infrastructure Network;
- Managing Heat Risk; and
- Creating Successful Places

One policy from the 2016 LDP was strengthen from a health and wellbeing perspective, Building Design, which now includes the requirement of creating inclusive environments through design.

(iv) Sustainable, Healthy and Prosperous Community

The policies found within this chapter of the LDP consist of a wide variety of subjects including employment, mixed use developments, and educational facilities. All these types of developments can have either a positive or negative impact on a person's / community's health and wellbeing.

The previous 2016 policy, Non-Retail Uses was determined to have a negative impact on health, due to the lack of guidance on where fast food / take away restaurants could be located as well as the hours of operation deemed acceptable by the Council. The Council removed this policy and replaced it with Mixed Use Development in Designated Centres. There is now a requirement within the policy to ensure new eateries are not located within 400 meters from a school and outlines appropriate hours of operation in an effort to encourage children to develop healthier eating habits.

Several new policies were also established to strengthen the Council's commitment to developing sustainable, healthy, and prosperous communities, such as:

- Planning for Inclusive Community;
- Protecting and enhancing Community Assets; and
- Promoting Health and Wellbeing

(v) Beautiful, Biodiverse, Clean and Functional Natural Environment

Access to green space / open space can have a very positive impact on a person's health and wellbeing. Brentwood Borough is 89% green belt, which means the community has significant access to open space. All but one per-existing policies from the 2016 LDP was found to have a positive impact on health. The 2016 Site Allocations in Green Belt policy was highlighted as needing additional work / evidence to support the policy to ensure health and wellbeing was adequately considered. This update was made allowing the policy to receive a neutral score.

New policies were also identified for strengthening the protection of the borough's open spaces such as:

- Conserving and Enhancing the Natural Environment; and
- Safeguarding the Historic and Natural Heritage Landscape Character

(vi) Dunton Hills Garden Village

The 2016 LDP consisted of a single policy on Dunton Hills Garden Village (DHGV). Given the number of homes planned for this site an entire chapter was created to ensure that the spatial vision and aspirations for the development are achieved. Three aims were identified for DHGV, one of which states, *“to create a distinctive and well-designed new settlement at Dunton Hills that responds to its spatial context, and incorporates all the necessary components to achieve a healthy, liveable and self-sustaining Garden Village”*. None of the new policies were found to have a negative impact on health and wellbeing, as this principle was considered throughout the process of developing the new policies. Details on how each of these policies scored are illustrated in appendix 1.



Interim Draft

This is a live document in that it is being regularly updated and will be completed for submission to the Secretary of State for Examination.

Draft Equalities Impact Assessment 2018 V.1.0

Brentwood Draft Local Plan Policies (2018)

Last Update: October 2018

Summary

This document contains the Equality Impact Assessment (EqIA) tables for Brentwood Borough's development management policies contained within the Draft Local Plan 2018 (Regulation 19 consultation version). This is an iterative process in that it feeds into the development of the planning policies in the Draft Local Plan and this is then reflected in updated versions of the Equality Impact Assessment. This process is ongoing as to when the Draft Local Plan is submitted to the Secretary of State for their consideration.

The purpose of the EqIA is to ensure that equality is placed at the centre of policy development and review and identifies the likely impact of this Plan on the existing and future communities. The EqIA can anticipate and recommend ways to avoid any discriminatory or negative consequences for a particular group.

The duty to carry out an EqIA of new policy is set out in the Equality Act 2010. The Act protects people from discrimination on the basis of certain characteristics, which are known as protected characteristics. The protected characteristics are:

- Age;
- Disability;
- Ethnicity/Race;
- Gender/Sex;
- Gender reassignment;
- Marriage and Civil Partnership;
- Pregnancy and maternity;
- Religion or beliefs and;

- Sexual orientation.

The Duty requires public bodies to have due regard for the need to eliminate discrimination, advance equality of opportunity, and foster good relations between different people when carrying out their activities and Brentwood Borough has considered the commentary in the EqIA assessment tables for the 2016 Draft Local Plan produced in 2017 in the drafting of policies for the 2018 Draft Local Plan.

Proposed Table of Contents:

1. Introduction
 - 1.1 EqIA and the Local Plan
2. What is an Equalities Impact Assessment (EqIA)?
 - 2.1 The Purpose of an Equalities Impact Assessment
3. Appraisal
 - 3.1 Population Profile
 - 3.1.1 Geographic Characteristics of Brentwood
 - 3.1.2 Brentwood Population Profile
 - 3.2 Assessment of Policies
 - 3.3 Roles and Responsibilities
4. Findings
 - Table XXX Coding System

1. Introduction

1.1 EqIA and the Local Plan

Once adopted, the Local Plan will replace the adopted Replacement Local Plan (2005) and sets out the spatial strategy for future growth and development for the period 2016-2033. The Local Plan is expected to be adopted in 2019.

The Local Plan will integrate with other policies and strategies of Brentwood Borough Council and other organisations. The Local Plan aims to address priorities set out in the Council's Corporate Plan - 'A Vision for Brentwood', under the themes: Environment and Housing Management; Community and Health; Economic Development; Planning & Licensing; and Transformation. The Local Plan will be one of the ways in which the aims and objectives of the Corporate Plan are achieved.

Supporting the delivery of this vision are a series of strategic objectives and spatial development principles outlining how growth and change is to be managed across the borough through the Plan period. The Spatial Strategy described in the Local Plan (Chapter 3) provides the framework for managing change and shaping how the area develops in future.

Principally, the spatial strategy sets out the level and location of development and growth and the key areas of change up to 2033, highlights the borough's built and natural assets to be safeguarded and enhanced.

The Local Plan is subject to Sustainability Appraisal/Strategic Environmental Assessment and Habitats Regulation Assessment to assess its environmental, social and economic performance at each stage of plan making. It has also been informed and shaped by a number of public and stakeholder consultations. This and all future consultations are carried out in accordance with the Council's SCI.

The Council's Authority Monitoring Report will continue to measure progress with preparing and implementing the Local Plan, with reports will also be presented, when appropriate, to Council Committees.

The Local Plan seeks to promote social inclusion and ensure that all people (including vulnerable groups) have access to the services and opportunities that they may need such as housing, employment, public transport and community facilities (e.g. education, health and local shopping). This will work towards meeting the public sector equality duty as the needs of these individuals are being incorporated into the Local Plan.

2. What is an Equalities Impact Assessment (EqIA)?

This document is the Equality Impact Assessment (EqIA) for the Brentwood Borough Draft Local Plan Regulation 19 consultation version of the Local Plan. The purpose of the EqIA is to ensure that equality is placed at the centre of policy development and review and identifies the likely impact of this Plan on the borough's community. The EqIA can anticipate and recommend ways to avoid any discriminatory or negative consequences for a particular group.

The duty to carry out an EqIA of new policy is set out in the Equality Act 2010. The Act protects people from discrimination on the basis of certain characteristics, which are known as protected characteristics. The protected characteristics are:

- Age
- Disability
- Ethnicity/Race
- Gender/Sex
- Gender reassignment
- Marriage and Civil Partnership
- Pregnancy and maternity
- Religion or beliefs and;
- Sexual orientation

The duty requires public bodies to have due regard for the need to eliminate discrimination, advance equality of opportunity, and foster good relations between different people when carrying out their activities.

The EqIA has been prepared following an iterative process. This involved identifying the likely impacts arising from each draft policy and then considering these impacts as positive, negative or neutral in light of the thrust of the relevant policy. This was set against known facts, information and evidence gathered from the Council's robust evidence base which underpins the Local Plan and which relates specifically to the protected characteristics listed in the Equality Act 2010. Recommendations on ways by which the negative impacts could be removed or mitigated and the positive impacts strengthened were then sought. The draft policies affected are then reconsidered and re-examined again in the same iterative process until they emerge with no known negative impacts and became more acceptable.

3. Appraisal

3.1 Population Profile

To be added

3.1.1 Geographic Characteristics of Brentwood

To be added

3.1.2 Brentwood Population Profile

To be added

3.2 Assessment of Policies

Descriptive text to be added in full (refer to Table of Policy Assessment (Appendix 1).

3.3 Roles and Responsibilities

To be added

4. Findings

To be added

Table 1: Coding System

Description	Symbol
Those policies that make a significant positive impact to the identified protected characteristic	(++)
Those policies that make a positive impact to the identified protected characteristic	(+)
Those policies which do not have a positive or negative impact to the identified protected characteristic	(N)
Those policies which have a minor negative impact to the identified protected characteristic	(-)
Those policies which have significant negative impact to the identified protected characteristic	(--)

5. Recommendations

To be added

Appendices

Appendix 1. Table of Policy Assessment

Appendix 1. Table of Policy Assessment

Policy Title	Age;	Disability;	Ethnicity / Race;	Gender / Sex;	Gender reassignment;	Marriage & Civil Partnership	Pregnancy & maternity;	Religion or beliefs	Sexual orientation	Commentary
Strategic Policies										
POLICYSP01:	(++)	(++)	(++)	(++)	(++)	(++)	(++)	(++)	(++)	Positive approach to reflect presumption of sustainable development for new homes and employment.
POLICYSP01:	(++)	(++)	(++)	(++)	(++)	(++)	(++)	(++)	(++)	Aiming to fulfil requirement for growth for new homes, in line with Government requirements, increasing number and variety of accommodation available for all.
POLICYSP01:	(++)	(++)	(++)	(++)	(++)	(++)	(++)	(++)	(++)	Promoting healthier and inclusive environments for all.
POLICYSP01:	(++)	(++)	(++)	(++)	(++)	(++)	(++)	(++)	(++)	Financial contributions to meet new infrastructure requirements
POLICYSP01:	(+)	(+)	(N)	(N)	(N)	(N)	(N)	(N)	(N)	Considerate construction, minimising impact on existing residents and business
POLICYSP01:	(++)	(++)	(++)	(++)	(++)	(++)	(++)	(++)	(++)	More new homes, in line with Government requirements, increasing number and variety of accommodation available for all from constructive masterplanning .
05 . Resilient Built Environment										
POLICYBE01: Future Proofing	(++)	(+)	(+)	(+)	(+)	(+)	(+)	(+)	(+)	Considering future changes and beyond immediate time horizons. Minimising shock and impact of stresses of future

Policy Title	Age;	Disability;	Ethnicity / Race;	Gender / Sex;	Gender reassignment;	Marriage & Civil Partnership	Pregnancy & maternity;	Religion or beliefs	Sexual orientation	Commentary
										events. Particular positive impact on the young.
POLICY BE02: Sustainable Construction and Resource Efficiency	(++)	(+)	(+)	(+)	(+)	(+)	(+)	(+)	(+)	Particular positive impact on the young of more sustainable resource use to consider future generational impact.
POLICY BE03: Carbon Reduction, Renewable Energy and Water Efficiency	(++)	(+)	(+)	(+)	(+)	(+)	(+)	(+)	(+)	Positive resource use and home efficiency for all with particular positive impact on the young of more sustainable resource uses to consider future generational impact.
POLICY BE04: Establishing Low Carbon and Renewable Energy Infrastructure Network	(N)	(N)	(N)	(N)	(N)	(N)	(N)	(N)	(N)	Community led initiative for renewable and low carbon energy. Positive development initiative with generally neutral impact on protected characteristic.
POLICY BE05: Assessing Energy Infrastructure	(++)	(+)	(+)	(+)	(+)	(+)	(+)	(+)	(+)	Positive resource use and home efficiency for all with particular positive impact on the young of more sustainable resource uses to consider future generational impact.
POLICY BE06: Improving Energy Efficiency in Existing Dwellings	(++)	(++)	(+)	(+)	(+)	(+)	(+)	(+)	(+)	Positive resource use and home efficiency for all with particular positive impact on the young of more sustainable resource uses to consider future generational impact and improvement for older persons

Policy Title	Age;	Disability;	Ethnicity / Race;	Gender / Sex;	Gender reassignment;	Marriage & Civil Partnership	Pregnancy & maternity;	Religion or beliefs	Sexual orientation	Commentary
										and those with disabilities who may be more home-bound.
POLICY BE07: Managing Heat Risk	(++)	(++)	(+)	(+)	(+)	(+)	(+)	(+)	(+)	Positive resource use and impact of extreme heat for all with particular positive impact on the young of more sustainable resource uses to consider future generational impact and improvement for older persons and those with disabilities who may be more home-bound.
POLICY BE08: Sustainable Drainage	(++)	(++)	(++)	(++)	(++)	(++)	(++)	(++)	(++)	Positive for all, implementation of flood resilience schemes impact on new and existing residents alike.
POLICY BE09: Communications Infrastructure	(+)	(+)	(+)	(+)	(+)	(+)	(+)	(+)	(+)	Positive for all, implementation of improved communication infrastructure impact on new residents alike, overall improvement to infrastructure likely to benefit existing residents and businesses.
POLICY BE10: Connecting New Developments to Digital Infrastructure	(+)	(+)	(+)	(+)	(+)	(+)	(+)	(+)	(+)	Positive for all, implementation of improved communication infrastructure impact on new residents.
POLICY BE11: Strategic Transport Infrastructure	(+)	(+)	(+)	(+)	(+)	(+)	(+)	(+)	(+)	Improvement to strategic transport infrastructure offers benefits to all
POLICY BE12: Car-Limited Development	(N) (-)	(N) (-)	(++)	(++)	(++)	(++)	(++)	(++)	(++)	Car limited development may be positive for those with full mobility to use alternatives. Neutral -negative to those who find non-car travel more

Policy Title	Age;	Disability;	Ethnicity / Race;	Gender / Sex;	Gender reassignment;	Marriage & Civil Partnership	Pregnancy & maternity;	Religion or beliefs	Sexual orientation	Commentary
										challenging. Design and location of development will need to consider this.
POLICY BE13: Sustainable Means of Travel and Walkable Streets	(++)	(++)	(++)	(++)	(++)	(++)	(++)	(++)	(++)	Better options for travel and improved streetscapes are positive for all
POLICY BE14: Sustainable Passenger Transport	(+)	(+)	(+)	(+)	(+)	(+)	(+)	(+)	(+)	Sustainable passenger transport that considers community facilities, schools, specialist older person housing. Positive for all
POLICY BE15: Electric and Low Emission Vehicle	(++)	(+)	(+)	(+)	(+)	(+)	(+)	(+)	(+)	Considering future transport changes and beyond immediate time horizons. Minimising shock and impact of stresses of future transport change. Particular positive impact on the young.
POLICY BE16: Mitigating the Transport Impacts of Development	(N)	(N)	(N)	(N)	(N)	(N)	(N)	(N)	(N)	Avoidance of negative impact from new development. Neutral to all
POLICY BE17: Parking Standards	(N)	(N)	(N)	(N)	(N)	(N)	(N)	(N)	(N)	Design standards for parking provision for new homes. Neutral impact on protected characteristic groups.
POLICY B18: Housing Mix	(++)	(++)	(++)	(++)	(++)	(++)	(++)	(++)	(++)	New homes that offer an inclusive, accessible environment.
POLICY BE19: Protecting the	(N)	(N)	(N)	(N)	(N)	(N)	(N)	(N)	(N)	No net loss of homes. Neutral impact

Policy Title	Age;	Disability;	Ethnicity / Race;	Gender / Sex;	Gender reassignment;	Marriage & Civil Partnership	Pregnancy & maternity;	Religion or beliefs	Sexual orientation	Commentary
Existing Housing Stock										
POLICY BE20: Residential Density	(+)	(+)	(+)	(+)	(+)	(+)	(+)	(+)	(+)	Introducing new homes that are appropriate for the location
POLICY BE21: Specialist Accommodation	(++)	(++)	(N)	(N)	(N)	(N)	(N)	(N)	(N)	Accommodation to fit the identified need, particularly with appropriate access, internal layout and location.
POLICY BE22: Affordable Housing	(++)	(+)	(+)	(+)	(+)	(+)	(+)	(+)	(+)	Affordable home may particularly benefit the young and new families
POLICY BE23: Standards for new housing	(+)	(+)	(+)	(+)	(+)	(+)	(+)	(+)	(+)	Beneficial to all groups to provide appropriate Accomodation of a positive size
POLICY B24: Provision for Gypsies and Travellers	(N)	(N)	(++)	(N)	(N)	(N)	(N)	(N)	(N)	Particularly beneficial to Gypsy and Traveller community to meet identified need
POLICY BE25: Regularising suitable existing traveller sites	(N)	(N)	(++)	(N)	(N)	(N)	(N)	(N)	(N)	Particularly beneficial to Gypsy and Traveller community to meet identified need
POLICY BE26: Safeguarding permitted sites	(N)	(N)	(++)	(N)	(N)	(N)	(N)	(N)	(N)	Particularly beneficial to Gypsy and Traveller community to meet identified need
POLICY BE27: Sub-Division of Pitches or Plots	(N)	(N)	(++)	(N)	(N)	(N)	(N)	(N)	(N)	Particularly beneficial to Gypsy and Traveller community to meet identified need
POLICY BE28: Proposals for	(N)	(N)	(++)	(N)	(N)	(N)	(N)	(N)	(N)	Particularly beneficial to Gypsy and Traveller, and Travelling

Policy Title	Age;	Disability;	Ethnicity / Race;	Gender / Sex;	Gender reassignment;	Marriage & Civil Partnership	Pregnancy & maternity;	Religion or beliefs	Sexual orientation	Commentary
Gypsies, Travellers and Travelling Showpeople On Windfall sites										Showpeople community to meet identified need
POLICY BE29: Planning for Inclusive Communities	(++)	(++)	(++)	(++)	(++)	(++)	(++)	(++)	(++)	Positive for all – beneficial for inclusiveness to all communities.
POLICY BE30: Creating Successful Places	(++)	(++)	(++)	(++)	(++)	(++)	(++)	(++)	(++)	Positive for all – beneficial for inclusiveness to all communities.
POLICY BE31: Responding to Context	(++)	(++)	(++)	(++)	(++)	(++)	(++)	(++)	(++)	Positive for all – beneficial for sense of place for all communities.
POLICY BE32: Permeable and Legible Layout	(++)	(++)	(++)	(++)	(++)	(++)	(++)	(++)	(++)	Positive for all – beneficial for access to all communities.
POLICY BE33: Buildings Design	(++)	(++)	(++)	(++)	(++)	(++)	(++)	(++)	(++)	Positive for all – beneficial for inclusiveness to all communities.
POLICY BE34: Paving over Front Garden	(++)	(++)	(++)	(++)	(++)	(++)	(++)	(++)	(++)	Positive for all – beneficial for sense of place and flood impact to all communities.
POLICY BE35: Designing Landscape and the Public Realm	(++)	(++)	(++)	(++)	(++)	(++)	(++)	(++)	(++)	Positive for all – beneficial for inclusiveness to all communities.

Policy Title	Age;	Disability;	Ethnicity / Race;	Gender / Sex;	Gender reassignment;	Marriage & Civil Partnership	Pregnancy & maternity;	Religion or beliefs	Sexual orientation	Commentary
POLICY BE36: Green & Blue Infrastructure	(++)	(++)	(++)	(++)	(++)	(++)	(++)	(++)	(++)	Positive for all – beneficial for inclusiveness and access to natural environment for all communities.
POLICY BE37: Access to Nature	(++)	(++)	(++)	(++)	(++)	(++)	(++)	(++)	(++)	Positive for all – beneficial for inclusiveness and access to natural environment for all communities.
POLICY BE38: Allotments and Community Food Growing Space	(++)	(+)	(++)	(++)	(++)	(++)	(++)	(++)	(++)	Positive social integration, contribute to improved mental and physical wellbeing. Access needs consideration.
POLICY BE39: Protecting Land for Gardens	(+)	(+)	(+)	(+)	(+)	(+)	(+)	(+)	(+)	Retention of gardens contribute to improved mental and physical wellbeing
POLICY BE40: Open Space in New Development	(++)	(++)	(++)	(++)	(++)	(++)	(++)	(++)	(++)	Positive social integration, contribute to improved mental and physical wellbeing. Access needs consideration.
POLICY BE41: Open Space, Community, Sport and Recreational Facilities	(++)	(++)	(++)	(++)	(++)	(++)	(++)	(++)	(++)	Positive social integration, contribute to improved mental and physical wellbeing. Access needs consideration.
POLICY BE42: Conservation and Enhancement of Historic Environment	(++)	(+)	(+)	(+)	(+)	(+)	(+)	(+)	(+)	Protection and enhancement, for all of the community, particularly positive for future generations.

Policy Title	Age;	Disability;	Ethnicity / Race;	Gender / Sex;	Gender reassignment;	Marriage & Civil Partnership	Pregnancy & maternity;	Religion or beliefs	Sexual orientation	Commentary
POLICY BE43: Listed Buildings	(++)	(+)	(+)	(+)	(+)	(+)	(+)	(+)	(+)	Protection and enhancement, for all of the community, particularly positive for future generations.
POLICY BE44: Conservation Areas	(++)	(+)	(+)	(+)	(+)	(+)	(+)	(+)	(+)	Protection and enhancement, for all of the community, particularly positive for future generations.
POLICY BE45: Local Heritage Assets	(++)	(+)	(+)	(+)	(+)	(+)	(+)	(+)	(+)	Protection and enhancement, for all of the community, particularly positive for future generations.
POLICY BE46: Scheduled Monuments and Archaeological Remains	(++)	(+)	(+)	(+)	(+)	(+)	(+)	(+)	(+)	Protection and enhancement, for all of the community, particularly positive for future generations.
06. Prosperous Community										
POLICY PC01: Cultivating a Strong and Competitive Economy	(++)	(++)	(++)	(++)	(++)	(++)	(++)	(++)	(++)	Promotion and support for employment and economic locations, positive for all
POLICY PC02: Job Growth and Employment Land	(++)	(++)	(++)	(++)	(++)	(++)	(++)	(++)	(++)	Promotion and support for employment and economic locations, positive for all
POLICY PC03: Employment Land Allocations	(++)	(++)	(++)	(++)	(++)	(++)	(++)	(++)	(++)	Promotion and support for employment and economic locations, positive for all
POLICY PC04: Development	(++)	(++)	(++)	(++)	(++)	(++)	(++)	(++)	(++)	Promotion and support for employment and economic locations, positive for all

Policy Title	Age;	Disability;	Ethnicity / Race;	Gender / Sex;	Gender reassignment;	Marriage & Civil Partnership	Pregnancy & maternity;	Religion or beliefs	Sexual orientation	Commentary
and Expansion of Business Space										
POLICY PC05: Employment Development Criteria	(++)	(++)	(++)	(++)	(++)	(++)	(++)	(++)	(++)	Promotion and support for employment and economic locations, positive for all
POLICY PC06: Supporting the Rural Economy	(++)	(++)	(++)	(++)	(++)	(++)	(++)	(++)	(++)	Promotion and support for employment and economic locations, positive for all
POLICY PC07: Retail and Commercial Leisure Growth	(++)	(++)	(++)	(++)	(++)	(++)	(++)	(++)	(++)	Promotion and support for employment and economic locations, positive for all
POLICY PC08: Retail Hierarchy of Designated Centres	(++)	(++)	(++)	(++)	(++)	(++)	(++)	(++)	(++)	Promotion and support for retail, employment and economic locations, positive for all
POLICY PC09: Brentwood Town Centre	(+)	(+)	(++)	(++)	(++)	(++)	(++)	(++)	(++)	Promotion and support for retail, employment and economic locations, positive for all. Access must be considered.
POLICY PC10: Mixed Use Development in Designated Centres	(++)	(++)	(++)	(++)	(++)	(++)	(++)	(++)	(++)	Promotion and support for employment and economic locations, positive for all
POLICY PC11: Primary Shopping Areas	(++)	(++)	(++)	(++)	(++)	(++)	(++)	(++)	(++)	Promotion and support for employment and economic locations, positive for all

Policy Title	Age;	Disability;	Ethnicity / Race;	Gender / Sex;	Gender reassignment;	Marriage & Civil Partnership	Pregnancy & maternity;	Religion or beliefs	Sexual orientation	Commentary
POLICY PC12: Non-centre Uses	(++)	(++)	(+)	(+)	(+)	(+)	(+)	(+)	(+)	Promotion and support for employment and economic locations, positive for all. Local facilities provides better facilities for those where mobility is more challenging.
POLICY PC13: Night Time Economy	(+)	(N)	(N)	(N)	(N)	(N)	(N)	(N)	(N)	Opportunity for increased out of hours employment and social locations. In particular for younger adults.
POLICY PC14: Protecting and Enhancing Community Assets	(++)	(++)	(++)	(++)	(++)	(++)	(++)	(++)	(++)	Protection and enhancement, for all of the community
POLICY PC15: Education Facilities	(++)	(++)	(++)	(++)	(++)	(++)	(++)	(++)	(++)	Beneficial for all of community
POLICY PC16: Buildings for Institutional Purposes	(++)	(++)	(++)	(++)	(++)	(++)	(++)	(++)	(++)	Beneficial for all of community
07. Natural Environment										
POLICY NE01: Protecting and enhancing the natural environment	(++)	(++)	(++)	(++)	(++)	(++)	(++)	(++)	(++)	Seeking to achieve sustainable, well-designed places that promote community wellbeing and protecting and enhancing natural environment.
POLICY NE02: Recreational disturbance	(++)	(++)	(++)	(++)	(++)	(++)	(++)	(++)	(++)	Seeking to achieve sustainable, well-designed places that promote community wellbeing and protecting and enhancing natural environment.

Policy Title	Age;	Disability;	Ethnicity / Race;	Gender / Sex;	Gender reassignment;	Marriage & Civil Partnership	Pregnancy & maternity;	Religion or beliefs	Sexual orientation	Commentary
Avoidance and Mitigation Strategy (RAMS)										
POLICY NE03: Trees, Woodlands, Hedgerows	(++)	(++)	(++)	(++)	(++)	(++)	(++)	(++)	(++)	Seeking to achieve sustainable, well-designed places that promote community wellbeing and protecting and enhancing natural environment.
POLICY NE04: Thames Chase Community Forest	(++)	(++)	(++)	(++)	(++)	(++)	(++)	(++)	(++)	Seeking to achieve sustainable, well-designed places that promote community wellbeing and protecting and enhancing natural woodland environment.
POLICY NE06: Air Quality	(++)	(++)	(++)	(++)	(++)	(++)	(++)	(++)	(++)	Seeking to achieve sustainable, well-designed places that promote community wellbeing and protecting and enhancing air quality
POLICY NE07: Flood Risk	(++)	(++)	(++)	(++)	(++)	(++)	(++)	(++)	(++)	Seeking to achieve sustainable, well-designed places that protect against flood risk.
POLICY NE08: Contaminated Land and Hazardous Substances	(++)	(++)	(++)	(++)	(++)	(++)	(++)	(++)	(++)	Seeking to achieve sustainable, well-designed places that promote healthy places and enhancing natural environment.
POLICY NE09: Floodlighting and Illumination	(++)	(++)	(++)	(++)	(++)	(++)	(++)	(++)	(++)	Seeking to achieve sustainable, well-designed places protect and enhancing the light environment.
POLICY NE12: Green Belt	(++)	(++)	(++)	(++)	(++)	(++)	(++)	(++)	(++)	Seeking to achieve sustainable, well-designed places that protect and enhancing Green Belt locations.

Policy Title	Age;	Disability;	Ethnicity / Race;	Gender / Sex;	Gender reassignment;	Marriage & Civil Partnership	Pregnancy & maternity;	Religion or beliefs	Sexual orientation	Commentary
POLICY NE13: New Development, Extension and Replacement of Buildings In Green Belt	(++)	(++)	(++)	(++)	(++)	(++)	(++)	(++)	(++)	Seeking to achieve sustainable, well-designed places that protect and enhancing Green Belt locations.
POLICY NE14: Established Areas of Development and Structures In The Green Belt	(++)	(++)	(++)	(++)	(++)	(++)	(++)	(++)	(++)	Seeking to achieve sustainable, well-designed places that protect and enhancing Green Belt locations.
POLICY NE15: Previously Developed Land in Green Belt	(++)	(++)	(++)	(++)	(++)	(++)	(++)	(++)	(++)	Seeking to achieve sustainable, well-designed places that protect and enhancing Green Belt locations.
POLICY NE16: Site Allocations in Green Belt	(++)	(++)	(++)	(++)	(++)	(++)	(++)	(++)	(++)	Seeking to achieve sustainable, well-designed places that protect and enhancing Green Belt locations.
POLICY NE17: Agricultural Workers Dwellings	(++)	(++)	(++)	(++)	(++)	(++)	(++)	(++)	(++)	Seeking to achieve sustainable, well-designed places that protect and enhancing Green Belt locations.
POLICY NE18: Re-Use and Residential	(++)	(++)	(++)	(++)	(++)	(++)	(++)	(++)	(++)	Seeking to achieve sustainable, well-designed places that protect and enhancing Green Belt locations.

Policy Title	Age;	Disability;	Ethnicity / Race;	Gender / Sex;	Gender reassignment;	Marriage & Civil Partnership	Pregnancy & maternity;	Religion or beliefs	Sexual orientation	Commentary
Conversion Of Rural Buildings										
08. Site Allocations										
Dunton Hills Garden Village Strategic Allocation.	(++)	(++)	(++)	(++)	(++)	(++)	(++)	(++)	(++)	New inclusive community with appropriate facilities and infrastructure, to benefit communities now and into the future.
Housing/Site Allocations	(++)	(++)	(++)	(++)	(++)	(++)	(++)	(++)	(++)	New inclusive homes with appropriate facilities and infrastructure, to benefit communities now and into the future.

01 Introduction

WHAT IS THE INFRASTRUCTURE DELIVERY PLAN?

- 1.1 This Infrastructure Delivery Plan (IDP) provides a schedule of infrastructure requirements to help support new development growth planned within Brentwood Borough Council's Local Plan in the period up to 2033.
- 1.2 The IDP is intended to be a 'live' working document and as such a micro site has been developed which is updated with regular date-referenced significant updates.¹ It is intended to publish the IDP annually as a hard copy linked to the Council's Authority Monitoring Report – generally in December each year.
- 1.3 The IDP is intended to be a user-friendly publication, which allows the reader to identify and understand quickly the connection between land use planning and related infrastructure demands.
- 1.4 The broad approach to developing the IDP is set out below in Figure 1.1.

Figure 1.1: IDP Development



¹ www.brentwoodidp.org

- 1.5 As a practical document, the IDP enables the Council to:
- gather a thorough understanding of existing infrastructure provision in the Borough;
 - plan and co-ordinate new infrastructure required to support new development growth;
 - provide an evidence base to support the deliverability of the new Local Plan, and
 - provide a user-friendly set of information which can be updated and reviewed as part of overall plan monitoring.

THE IMPORTANCE OF INFRASTRUCTURE PLANNING: PLANNING POLICY

- 1.6 The new National Planning Policy Framework (NPPF) (2018) is clear under para 20 of the importance of infrastructure planning in the development of Local Plans stating that local planning authorities should include strategic policies to deliver:
- infrastructure for transport, telecommunications, security, waste management, water supply, wastewater, flood risk and coastal change management, and the provision of minerals and energy (including heat);
 - community facilities (such as health, education and cultural infrastructure), and
 - conservation and enhancement of the natural, built and historic environment, including landscapes and green infrastructure, and planning measures to address climate change mitigation and adaptation.

- 1.7 Under para 20 of the NPPF, plans should set out the contributions expected from development.

'This should include setting out the levels and types of affordable housing provision required, along with other infrastructure (such as that needed for education, health, transport, flood and water management, green and digital infrastructure). Such policies should not undermine the deliverability of the plan'.

- 1.8 It is also noted under the NPPF (para 26) that:

'Effective and on-going joint working between strategic policy-making authorities and relevant bodies is integral to the production of a positively prepared and justified strategy. In particular, joint working should help to determine where additional infrastructure is necessary, and whether development needs that cannot be met wholly within a particular plan area could be met elsewhere'.

- 1.9 Within the NPPF there are also various references to understanding and planning for particular types of infrastructure provision including transport, green infrastructure, infrastructure to support economic growth and communications and digital infrastructure.

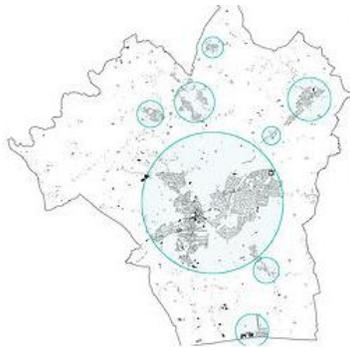
ABOUT BRENTWOOD

- 1.10 The Borough of Brentwood is located within south west Essex to the north east of Greater London and is made up of the Brentwood Urban Area consisting of connected local centres such as Brentwood, Shenfield, Hutton, Warley, Brook Street and Pilgrims Hatch; local village service centres, such as Ingatestone and a wide range of villages set within countryside designated as Metropolitan Green Belt.
- 1.11 The Borough is well located for access to the strategic transport network with direct access to the M25, A127, A12, Great Eastern Mainline (calling at Shenfield and Brentwood) and the c2c rail line connecting London Fenchurch Street with South Essex (with a connection at West Horndon Station). The Crossrail project which terminates at Shenfield Rail Station will further increase the accessibility of the area.
- 1.12 The Great Eastern Mainline and A12 bisect the centre of the main urban areas in Brentwood and Shenfield, while the A127 and C2C line presents strong physical features towards the south of the Borough. As an important location for transport corridors, Brentwood acts as a gateway to the wider Essex area.
- 1.13 Brentwood has been defined in the Local Plan as a ‘borough of villages’. People choose to live and work here because of the excellent transport links connecting us to London and the rest of the country, along with access to the surrounding countryside and green spaces. Brentwood is defined by Green Belt which covers 89% of the borough.

Figure 1.2: Brentwood Borough and Proximity to London

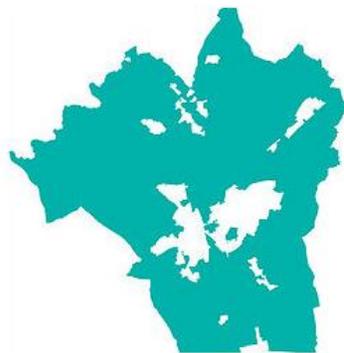


KEY BOROUGH CHARACTERISTICS – A SNAPSHOT



Spatial

Brentwood Borough has a total area of approximately 15,300 hectares. At the heart of the Borough is the market town of Brentwood and its wider urban area, which is surrounded by villages set amongst the countryside and attractive natural landscape.



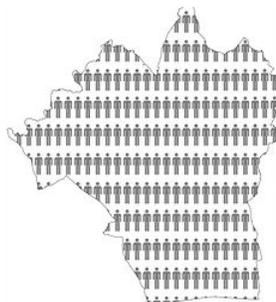
Green Belt

89% of the Borough is within London's Metropolitan Green Belt. This is the sixth highest in England by percentage of total area.



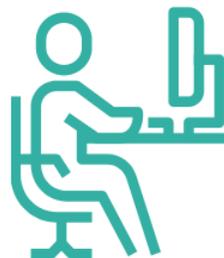
Environment

The Borough has a rich tapestry of natural assets, including two County Parks, 15 SSSI units, and 147 Local Wildlife Sites. The Borough is also fortunate to have almost 13 Conservation Areas covering 600 ha; 12 Scheduled Ancient Monuments, and over 500 listed buildings.



Population

In 2011, the Borough had a usual resident population of 73,601 (Census 2011 – QS102EW) (up by 7.56% from 2001) and a high density per head of 4.8 persons per hectare (compared to 3.1 for East of England and 4.1 for England). In 2011, the Borough had a higher percentage of residents aged 45+ than the East of England and England averages, with a median age of 43 compared with 39 for England (National Statistics – KS102EW). The largest ethnic group is White English and at 89.2% significantly above regional and national averages (85.3% for East of England and 79.8% for England as a whole - National Statistics – KS201EW). Brentwood has the second lowest number of existing households in Greater Essex (Essex Growth Infrastructure (GIF) Framework Nov 2016)



Employment

ONS data (annual population survey – Jul 2015-June 2016) indicates an economic activity rate of 79%, slightly lower than the regional rate of 80.1% but higher than the GB rate of 77.9%. Notably the number of self-employed persons was at 12.5% which was significantly above East of England (10.7%) and GB (10.3%) averages. Long-term unemployed rates were less than both regional and national averages. According to the 2011 Census data, for both male and females, a high proportion of the residents were employed in senior, professional and associate professional occupations compare to both regional and England averages. There was also a significantly higher proportion of females employed in administration and secretarial occupations (24.5%) than the regional and England averages (National Statistics – KS610EW).



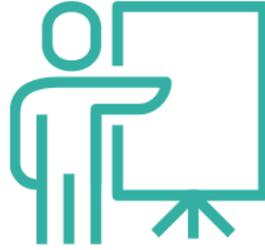
Housing

In 2011, the Borough consisted of 32,067 dwellings. At that point, the percentage of household tenure which is owned in the Borough (75.1%) is significantly above regional (67.6%) and England (63.34%) averages (National Statistics – QS405EW). Consequently the levels of shared ownership, and social and private rented are significantly below East of England and England averages. In 2011, the dwelling stock consists of a higher percentage of detached (31%), semi-detached (31.9%) and flatted (17.9%) dwelling types compared to the regional and England averages for each type. The percentage of terraced dwellings (15.7%) was significantly lower than East of England 22.8% and England average (24.5%) (National Statistics – KS401EW). The average house price for Brentwood Borough in September 2016 was £420,111 compared to £217,888 for the UK (Land Registry).



Health and Wellbeing

The health of people in Brentwood is generally better than the England average. Deprivation is lower than average, however about 10.8% (1,400) children live in poverty. Life expectancy for both men and women is higher than the England average. Local health priorities include improving the health of older people, increasing vaccination coverage, and reducing cardiovascular disease by reducing the prevalence of obesity.



Education and Skills

ONS annual population survey data (Jan 2015-Dec 2015) indicates a lower percentage of the population within Brentwood Borough with NVQ Level 2, 3 and 4 qualifications, than the national average. However, compared to the Essex rate, Brentwood has above average rates of people with NVQ4+ qualifications (GIF 2016).



Earnings

ONS annual population survey data (Jan 2015-Dec 2015) indicates that workers tend to earn significantly above regional and national averages - £756.60 per week compared with £569.40 and £541.00 per week respectively.



Transport and Movement

Travel to Work data from the 2011 Census indicates that driving by car remains the most popular method of travel in the Brentwood Borough (53.06%) up slightly from 52.39% in 2001. However this rate is below the regional rate of 61.66% and England rate of 57.01%. Brentwood has high rates of travel to work by train at 23.13% in 2011 (up from 20.15% in 2001), which is strongly aligned to the Borough's commuter proximity to London. This rate is significantly higher than the East of England rate of 7.20% and England rate of 5.34%. 2011 Census data records Brentwood as having the second lowest level of cycling in Essex with less than 1% of journeys to work being made by bike. The Census date from 2001 to 2011, also indicates a slight reduction in cycle to work activity over the census periods.



Economy and Enterprise

ONS Business Register and Employment Survey (2015) indicates that the top three employee jobs by industry in the Brentwood Borough are M: Professional, Scientific and Technical (12.5%); N: Administrative and Support Services (12.5%), and G: Wholesale and Retail Trade (11.1%). Employee groupings for M and N are above regional and national averages. The Inter Departmental Business Register (ONS) UK Business Counts (2016) indicates a strong bias towards micro enterprises (90.6%) in the Brentwood Borough which is higher than the East of England figure of 89.7%. The percentage of small, medium and large enterprises are lower than the comparative regional figures. Brentwood has higher levels of economic sector specialisations in knowledge based services (GIF 2016)



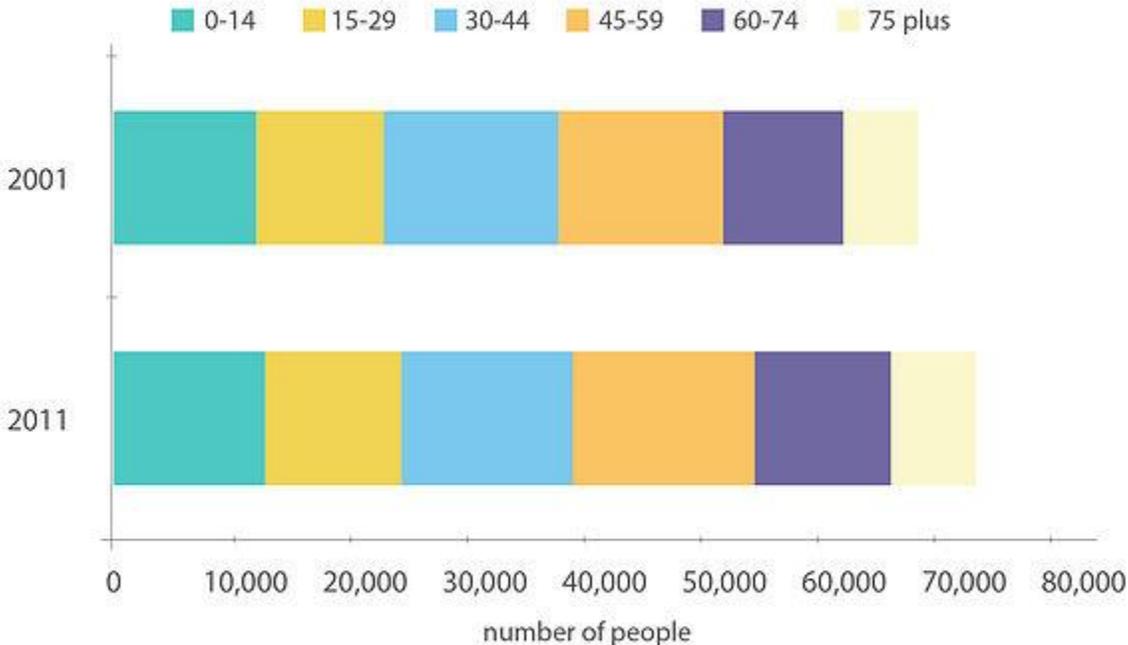
Utilities and Telecoms

Essex as a whole is identified as an area of Serious Water Stress (Identifying Areas of Water Stress, Environment Agency 2007) Brentwood Borough includes some of the driest areas of the country and as such face particular challenges including a general lack of new water resources, growing demand and uncertainty from climate change. The Borough suffers from a number of surface water issues – focused around West Horndon, the Brentwood Urban Area and Ingatestone. The Borough suffers from Broadband coverage deficits in rural areas to the north east, north west and south east. Deficits in mobile phone coverage tend to follow similar patterns to that of Broadband coverage.

DEMOGRAPHIC PROJECTIONS AND HOUSING REQUIREMENTS

1.14 It is noted in the Borough Profile that at the time of the 2011 Census, the Borough had a usual resident population of 73,601. The resident population for the Borough was up by 7.56% from the 2001 Census – almost 5,150 people. In comparison the population of the East region increased by 7.9% between the 2001 and 2011 Census, whilst the population of England grew by 8.9%. Figure 1.3 below highlights the changes in the profile of the population between the two Census dates, which indicates an increase in the number of people aged over 45 and aged 15-29, but a decrease in people aged 30-44.

Figure 1.3 Population Composition in Brentwood (2001 and 2011)²



1.15 The Objectively Assessed Housing Need (OAHN) for the Local Plan is set at 380 dwellings per annum. Further technical information on how the OAHN is calculated and associated matters is available through the technical evidence base for the Local Plan. 380 dwellings per annum is a challenging growth rate for the

² [1]: Figure and analysis text reproduced from pp7-8 - Strategic Housing Market Assessment Part 2 – Objectively Assessed Need for Affordable Housing (HDH Planning and Development Ltd / Peter Brett Associates – June 2016)

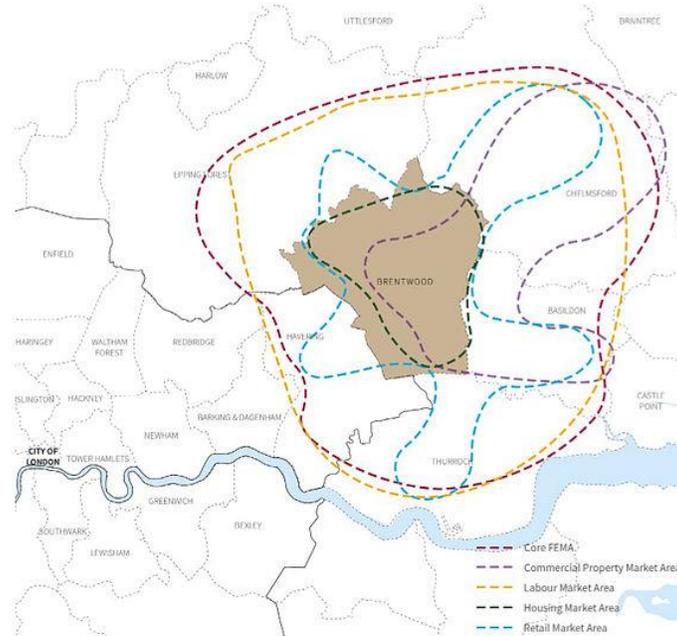
Borough. Historically, through the early part of the plan period (2013 to 2017), the borough has obtained an average housing completion rate of circa 132 dwellings per annum.

- 1.16 Objectively assessed housing need for the Borough does not take into consideration specialist accommodation need linked to residential care homes or nursing homes (classified as C2 – ‘residential institutions’ under the Use Classes Order), and Gypsy & Traveller pitches and accommodation provision.

EMPLOYMENT LAND AND FORECASTS

- 1.17 Brentwood is an attractive business location with a high-quality environment, within close proximity to London, a well-qualified workforce and good transport links. The evidence base on employment land need and supply (Economic Futures Report 2013-2033: Final Draft Report) was updated to ensure that the right level and range of employment land is available to support a dynamic local economy and that the economic forecasts are as up to date as possible and align to the current plan period.
- 1.18 The Council has run work on housing need and employment land need and supply in parallel to ensure that any cross-over issues are considered and addressed in both the SHMA and Economic Futures update report. Further information on the Economic Futures Report is available as technical evidence to the Local Plan.
- 1.18 The updated economic evidence includes an indicative assessment of the Borough’s Functional Economic Market Area (FEMA)(essentially the Borough’s economic geography looking at travel to work, where people access shops and services and other factors), various economic forecasts and an assessment of employment land supply to meet need. The FEMA is set out below in Figure 1.4.

Figure 1.4: Brentwood FEMA



1.19 Figure 1.5 below taken from the Economic Futures report sets out the Local Plan’s total employment land need, taking into consideration econometrical forecast requirements and losses. This totals a combined requirement of between 33.76 to 45.96ha.

Figure 1.5 Total Employment Land Need

Land	
New Requirements	
Forecast Requirement for Employment Land (B Class Uses)	8.1ha to 20.3ha
Forecast Loss of Employment Land by Re-allocations for other uses	21.01ha
Forecast Loss of Existing Employment Allocations through structural change, changes in allocation threshold and permitted development	4.65ha
Combined Requirement	33.76ha to 45.96ha

1.20 The Local Plan analysis of land need and supply is detailed below in Figure 1.6. This indicates with the proposed allocations of 47.39ha a small surplus. Details on housing and employment land allocations are discussed under the typology chapter of the IDP.

Figure 1.6: Employment Land Need and Supply

Land	
New Requirements	
Forecast Requirement for Employment Land (B Class Uses)	8.1ha to 20.3ha
Forecast Loss of Employment Land by Re-allocations for other uses	21.01ha
Forecast Loss of Existing Employment Allocations through structural change, changes in allocation threshold and permitted development	4.65ha
Combined Requirement	33.76ha to 45.96ha
New Supply	
Proposed Allocations	47.39ha
Reduction	
Forecast Pipeline Change of Uses (2017-18) monitoring period (estimate)	-1ha
Initial Surplus / Shortfall	+0.43

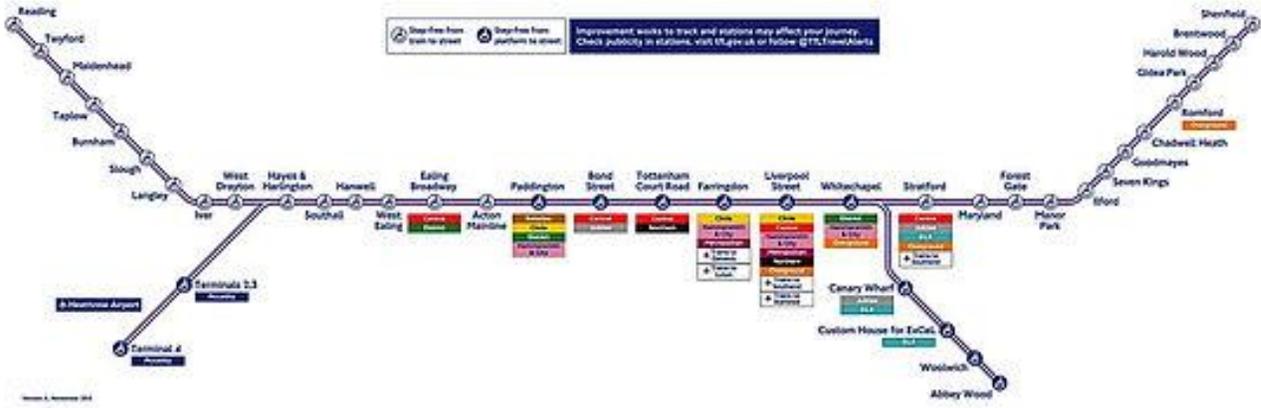
CURRENT MAJOR INFRASTRUCTURE PROJECTS

- 1.21 There are several regionally important infrastructure projects which will have an impact on local planning within the Brentwood Borough area. These are detailed below in this section.

Crossrail

- 1.22 Crossrail began in 2009 and is currently Europe’s largest infrastructure project and identified in the National Infrastructure Delivery Plan (2016-2021). The project creates a new railway for London and the South East (to be known as the Elizabeth line), linking Reading in the west through London and onto eventually Shenfield in the east (See Figure 1.7). The arrival of Crossrail has led to upgraded essential station facilities at Shenfield and Brentwood Stations within the Borough. Further work is required on improving the public realm, access and circulation around both stations.

Figure 1.7: Crossrail



Lower Thames Crossing

- 1.23 A new Lower Thames Crossing is planned to reduce congestion at the existing Dartford crossing and support growth plans, including new homes in Essex and Kent. In April 2017, it was announced by Government that Route 3 was the preferred option - this route was supported by the Borough Council during the public consultation.
- 1.24 Consultation on updated plans for the new Lower Thames Crossing started in October 2018. Discussions are progressing with Highways England and other parties over the implications of the project for access arrangements to the proposed Brentwood Enterprise Park Local Plan allocation off M25 Junction 29.

M25 Junction 28

- 1.25 Highways England consulted in 2017 on options to improve Junction 28 of the M25, which plays a vital role in connecting the motorway with the A12, as well as providing local access to Brentwood via the A1023 (Brook Street). It's a heavily used junction which features a roundabout mainly controlled by traffic lights. Up to 7,500 vehicles per hour currently travel through the roundabout at peak times.
- 1.26 The preferred route option for the scheme is Option 5F which is illustrated in Figure 1.8. This option consists of a two-lane loop road, widening of a short section of the M25 and reconfiguration of A12. At the time of the original consultation, the cost of the scheme was estimated at circa £79.8m, with a construction duration of 27 months.



Figure 1.8 M25 J.28 Proposals

A12 Corridor

- 1.27 Highways England consulted during 2017 on high-level options to improve the A12 from junctions 19 (Boreham Interchange) to 25 (Marks Tey interchange) to reduce congestion and improve network safety. The works are programmed to start from 2020/21 at a cost of between £100 to £250m. The A12 route (whole route) is also planned for a technology upgrade to include vehicle detection loops, CCTV cameras and driver information signs, to allow better information to drivers and active management of traffic on the route. The estimated cost of this project is £50-100m. The Road Investment Strategy, 2015 to 2020 (RIS1) indicated that schemes planned for the next Road Investment Strategy (RIS 2) period (strategy starting from 2020), potentially included widening the A12 to three lanes between the M25 and the Chelmsford bypass (junctions 11 to 15).

LOCAL PLAN PROGRESS AND INFRASTRUCTURE PLANNING

- 1.28 The Council is currently preparing a new Local Plan for the Borough which, once adopted, will supersede saved policies in the current Replacement Local Plan (2005). The Council consulted on a Draft Local Plan in January 2016 and undertook in January 2018 a focused consultation under Regulation 18 on proposed housing and employment sites. The Council is finalising its revised full Local Plan for public

consultation, then submission to the Secretary of State for public examination and onwards to formal adoption.

1.29 The Local Plan is informed by a range of technical evidence which also supports analysis contained within the IDP. This evidence base includes:

- Green Infrastructure Strategy (September 2015)
- Local Wildlife Site Review (December 2012)
- Economic Futures 2013-2033 Report (January 2018)
- Renewable Energy Study (April 2014)
- Brentwood Borough Local Plan - Transport Assessment (October 2018)
- Site Assessment Report (October 2018)
- Indoor Sports Facilities Strategy (May 2018)
- Playing Pitch Strategy (October 2018)
- Surface Water Management Plan (SWMP) (January 2015)
- Strategic Flood Risk Assessment (SFRA) (February 2011 and 2018 Update)
- Water Cycle Study (February 2011 and 2018 Update)

1.30 The IDP is also informed by:

- detailed work and discussions with stakeholders on early years and primary, secondary and special educational needs provision;
- detailed engagement with healthcare sector specialists;
- feedback from stakeholders as part of the previous consultation stages on the development of the Local Plan, and
- duty to co-operate activity.

1.31 The Council is currently updating its Community Infrastructure Levy (CIL) information and forward consultation / adoption programme. Under the regulations, infrastructure planning is required to demonstrate an aggregate funding gap to enable the imposition of a CIL in an area. The IDP is an important source of infrastructure costs and funding information and provides the basis for identifying the priorities for future infrastructure funding. The current CIL Guidance sets out that Charging Authorities need to identify the total cost of infrastructure that it desires to fund in whole or in part from CIL. This process will identify a Community Infrastructure Levy funding target. The Statutory CIL Guidance also states that the Charging Authority's infrastructure needs should be directly related to the infrastructure assessment that underpins the relevant Local Plan.

1.32 In parallel to CIL analysis, the Council also commissioned a whole plan viability study, which uses information in the IDP to inform site infrastructure cost values.

IDP METHODOLOGY

Information Collection

- 1.33 This IDP uses two main methodological approaches to collect information on infrastructure delivery and the consideration of infrastructure needs:
- understanding the delivery of services through interaction with infrastructure stakeholders, which can include a range of direct delivery information and future forecasting of issues and matters arising, and
 - where appropriate the application of infrastructure standards or estimates, which relate to linking infrastructure needs to population or growth levels.
- 1.32 There is no prescribed approach to undertaking infrastructure studies, but the Council considers that a balanced or hybrid methodology allows for a rounded consideration of issues. It also facilitates strong stakeholder involvement in the study development assisting with the 'ownership' of joint infrastructure priorities. The work has also involved considering the wide range of representations submitted by members of the public and organisations on infrastructure issues associated with plan-making.
- 1.33 The range and types of information contained within an IDP has a cross relation to plan monitoring work. While the current publication is fairly traditional in the use of information, there may be opportunities in the future to consider the use of 'smarter' data or more joined-up data resources to inform future editions of the IDP. Some of this work may come together through the implementation and delivery of development sites. Examples of smart, multi-layered or real time data include:
- collecting 'real-time' GPS vehicle data for forecasting traffic flows and junction impacts;
 - advanced transportation modelling and accessibility software which allow for multiple layered queries, linking specific groups in society (say older people) to specific types of infrastructure (say health facilities) and public transport planning;
 - development of software solutions to data-collection / feedback informed by regular direct community / stakeholder input rather set reporting periods.
 - building upon the data collected across Essex to inform individual IDPs and the strategic Growth Infrastructure Framework (GIF) to establish a knowledge hub of 'live' infrastructure information;
 - community driven and shared GIS mapping and linked data-sources – the Council currently provides a Datashare and My Property functions.

There are also opportunities to work with stakeholders and local residents on improving information sources and developing more dynamic approaches to infrastructure planning.

Partnership Working

- 1.34 This IDP has been developed through discussions with key infrastructure stakeholders and will continue to require focused involvement and development. Very early work on the IDP was reported to the Essex Community Infrastructure Group (ECIG), which is chaired by Essex County Council. The development of the Local Plan has also included a close working relationship with ECC, which has enabled a strategic approach to be taken on education infrastructure.

Defining Infrastructure

- 1.35 The starting point for defining infrastructure is the definition contained within Section 216 of the Planning Act 2008 as amended by the CIL Regulations 2010. This defines 'infrastructure' as including (but not limited to) the following:

- Roads and other transport facilities;
- Flood defences;
- Schools and other educational facilities;
- Medical facilities;
- Sporting and recreational facilities;
- Open spaces; and
- Affordable housing (removed by the CIL Regulations)

- 1.36 The Planning Act 2008 provides a relatively broad definition of what can be considered infrastructure. It is important to note that this infrastructure is actually delivered by a range of stakeholders and authorities and only a small proportion is or will be delivered by Brentwood Borough Council.

- 1.37 Work by Morphet (2016)³ on infrastructure delivery planning and the publication of the National Infrastructure Delivery Plan, provide a useful starting template for infrastructure categorisation (and sub-categorisation). The findings from this research has been adapted to reflect local issues to produce the infrastructure classifications detailed in Figure 1.9 below.

³ Morphet, J, 2016 Infrastructure Delivery Planning, Bristol: Policy Press 15-17

Figure 1.12: Infrastructure Categories



PHYSICAL INFRASTRUCTURE

- Transport: cycling, walking, public rights of way, bus travel, rail travel, community transport, taxis and private hire vehicles, freight movement and operations, road and junction infrastructure, vehicle parking and public realm.
- Energy: National Grid transmission networks, electricity and gas distribution networks, renewable energy.
- Water and Drainage: potable water supply, waste water treatment and sewage, surface water and fluvial flooding.
- Waste: strategic waste sites, household waste and recycling centres for household waste, kerbside collections.
- Telecommunications: broadband infrastructure, mobile communications, telephone boxes.



COMMUNITY INFRASTRUCTURE

- Education: early years and nursery provision, primary school provision, secondary schools (including sixth forms), post-16 education and training, adult learning.
- Health: public health, GP surgeries, hospitals and clinics, dentists and orthodontic surgeries, pharmacy services.
- Leisure and Community Facilities: formal play areas and facilities (including sports pitches and greens), informal recreation sites, village / community halls and centres, sports halls, swimming pools, indoor bowls and tennis facilities.
- Social, Voluntary and Community Services: children, family and adult specialist care, voluntary and community infrastructure, libraries, cemeteries, graveyards and crematoria.
- Rural Services and Post Offices: parish and rural projects, main post offices, sub-post offices, sorting offices and parcel distribution points.
- Cultural Facilities and Historic Assets: museums, galleries and arts / entertainment venues (including cinemas and theatres), markets, events and festivals, conservation areas, historic parks and gardens, statutory listed buildings, scheduled ancient monuments, buildings at risk, local heritage listings.
- Emergency Services: fire and rescue services, ambulance service, defibrillators, police service.



ENVIRONMENTAL INFRASTRUCTURE

- Parks and Gardens: county parks, borough parks and recreation grounds, historic parks and gardens.
- Ecological Assets, Natural and Semi-natural Greenspaces: Special Sites of Scientific Interest (SSSI), Local Nature Reserves (LNR), Local Wildlife Sites (LoWS), woodlands, geological assets, grasslands, other assets.
- Green and Blue Corridors: main rivers, large ordinary / non-main river watercourses, major tributaries, wetland, major road corridors, major rail corridors, cycling routes / network, pedestrian paths and rights of Way, protected lanes.
- Outdoor Sports Facilities: green surfaces – tennis courts, bowling greens, sports pitches, golf courses, school and other institutional playing fields, and other outdoor sports areas; green formal / informal recreation areas for children / teenagers.

Infrastructure Assessment Framework

- 1.38 The majority of infrastructure chapters in the IDP follow a set format which includes:
- a brief overview of the infrastructure topic;
 - a summary of existing infrastructure, gaps and any potential projects or plans;
 - an assessment of the implications, impact or opportunities of growth linked to infrastructure themes, and
 - financial considerations.

Where infrastructure topic information is limited, or more detailed information is to be gathered, a more streamline chapter structure is followed.

- 1.39 Once a reliable baseline has been established with regard to existing infrastructure provision, the impact of the proposed quantum and locations of new development can be assessed. It should be noted that the manner in which infrastructure planning and development plan making takes place is an iterative process. Therefore, the proposed spatial strategy of the Local Plan has considered the emerging infrastructure evidence base to modify proposals or identify particular local infrastructure priorities.

- 1.40 In terms of overall format the IDP is split into two elements:

Part A – review of infrastructure by theme, and

Part B – cumulative assessment of impact.

02 Development Typology

SPATIAL STRATEGY

- 2.1 This section of IDP focuses upon the proposed quantities of growth associated with the new Local Plan and breaks the proposed housing and employment sites into more detailed elements, such as the type of dwellings (flats, houses etc) expected to be delivered. This allows for consistent measures to be applied to primarily forecasting for potential new pupil numbers for early years and education facilities.
- 2.2 The Local Plan sets out a clear spatial vision and strategy for the Borough, with an emphasis upon protecting and enhancing local character while fostering sustainable communities by concentrating new development on land within the Borough's transport corridors. Brentwood and Shenfield are the main focus for development in the A12 Corridor supported by two major strategic allocations in the A127 Corridor, bringing forward new homes, businesses and employment opportunities.
- 2.3 In terms of total development quantities the Local Plan sets out to meet a total housing need of 380 dwellings per annum. The housing led allocations are split by area is detailed below:
- brownfield land within Brentwood Urban Area / settlement boundary - 1152 dwellings;
 - greenfield land within Brentwood Urban Area / settlement boundary - 95 dwellings;
 - brownfield land within settlement boundary - other locations - 580 dwellings;
 - green belt land - edge of Brentwood Urban Area - 1440 dwellings;
 - green belt land - edge of Ingatestone - 218 dwellings;
 - green belt land - larger villages - 133 dwellings, and
 - strategic allocation - Dunton Hills Garden Village - 2500 dwellings (within plan period).
- 2.4 The Local Plan proposes to allocate just over 47ha of new employment land, with over 50% of the new employment land focused upon a new strategic enterprise park at M25 J.29. Most of the new employment allocations are centred along the A127 corridor, and also includes land at Childerditch, East Horndon and Dunton Hills.

TPOLOGY OF PROPOSED DEVELOPMENT SITES

2.5 The development typology adopted in the IDP uses the following:

- land uses;
- dwelling forecasts;
- types of dwellings;
- employment land floorspace forecasts, and
- job estimates.

2.6 The development of the typology is not an exact science and there are many variables to consider, but the analysis provides an initial baseline from which to consider the impact of development.

Residential Sites

2.7 The Local Plan proposes a mixed portfolio of housing-led allocations which are set out below in Figure 3.1. This figure also includes an estimate of the type of residential units which may come forward for each individual site, split by:

- Discounted Units (DU) – studios, 1-bedroom flats and houses plus senior housing;
- Flats (F) – apartments with 2 or more bedrooms.
- Houses (H) – dwellings with 2 or more bedrooms.

The typology is based upon submitted site sponsor information and professional judgement using site yield calculations plus an assessment of capacity based upon the surrounding built form and comparative schemes from other locations. The mix of dwellings types may change as sites move forward from potential allocations through the planning process to planning applications.

Figure 2.1: Local Plan Residential Typology

Allocation Ref	Site Name	DU	F	H	Total	2018-23 Total	2023-28 Total	2028-33 Total	2033-38 Total	Grand Total
079A	Land Adjacent to Ingatestone By-pass	0	16	41	57	50	7	0	0	57
128	Ingatestone Garden Centre, Roman Road	20	20	80	120	0	120	0	0	120
106	Site adjacent to Ingatestone Garden Centre (former A12 works site)	15	0	26	41	41	0	0	0	41
020	West Horndon Industrial Estates	50	40	110	200	50	125	25	0	200
021 / 152	West Horndon Industrial Estates	140	80	160	380	80	200	100	0	380
200	Dunton Hills Garden Village (200)	330	610	2560	3500	100	1150	1250	1000	3500
076	Land south of Redrose Lane, north of Orchard Piece, Blackmore	10	0	20	30	30	0	0	0	30
077	Land south of Redrose Lane, north of Orchard Piece, Blackmore	10	0	30	40	0	40	0	0	40
294	Chestnut Field, Blackmore Road	0	0	5	5	5	0	0	0	5
085B	Land adj Tipps Cross Community Hall, Blackmore Road	0	0	5	5	5	0	0	0	5
075	Land off Stocks Lane, Kelvedon Hatch	5	0	25	30	30	0	0	0	30
194	Brizes Corner Field, Blackmore Road, Kelvedon Hatch	5	0	18	23	23	0	0	0	23
044 / 178	Land at Priests Lane, Brentwood	0	0	95	95	75	20	0	0	95
002	Brentwood railway station car park	70	30	0	100	0	0	100	0	100
039	Westbury Road Car Park, Westbury Road, Brentwood	18	9	18	45	45	0	0	0	45
040	Chatham Way / Crown Street Car Park Brentwood	15	0	16	31	31	0	0	0	31
041	Land at Hunter House, Western Road, Brentwood	37	11	0	48	0	48	0	0	48
102	William Hunter Way	115	150	35	300	25	240	35	0	300
083	Land west of Warley Hill, Pastoral Way, Warley	6	12	22	40	0	40	0	0	40
022	Land at Honeypot Lane, Brentwood	40	0	160	200	0	200	0	0	200
032	Land East of Nags Head Lane, Brentwood	10	10	105	125	50	75	0	0	125
081	Council Depot, The Drive, Warley	43	65	15	123	0	123	0	0	123
117A & 117B	Ford Headquarters, Warley	150	100	100	350	0	0	350	0	350
027	Land adjacent to Carmel, Mascalls Lane, Warley	0	0	9	9	9	0	0	0	9

186	Land at Crescent Drive, Shenfield	10	35	10	55	30	25	0	0	55
311	Eagle and Child Pub, Shenfield	6	14	0	20	20	0	0	0	20
003	Wates Way Industrial Estate, Ongar Road, Brentwood	60	20	0	80	16	64	0	0	80
010	Sow and Grow Nursery, Ongar Road, Pilgrims Hatch	20	0	18	38	38	0	0	0	38
023	Land off Doddinghurst Road, either side of A12	30	0	170	200	0	200	0	0	200
034 / 235 / 087 / 276	Officer's Meadow, Alexander Lane / Chelmsford Road, Shenfield	90	20	400	510	0	375	135	0	510
263	Land east of Chelmsford Road, Shenfield	30	0	170	200	0	200	0	0	200
158	Land north of A1023 Chelmsford Road, Shenfield	0	0	100	100	0	100	0	0	100

Employment Sites

2.8 The Local Plan proposes to allocate seven new or additional employment allocations which are detailed below in Figure 2.2. The table includes information on site area and the estimated employment floorspace. This information is then used to calculate job estimates, according to average employment densities by potential business type¹. Work was also undertaken using similar types of analysis in the Economic Futures 2013-2033 Report (January 2018).

Figure 2.2: Local Plan Employment Typology

Employment Site			Use Split	Gross Site Area (m2)	Plot Ratio (Lichfields in part)	GEA (m2)	GIA (m2) (5% reduction rule of thumb)	NIA (m2) (5% industrial / 15% offices reduction rule of thumb)	Employment Density (sqm per job) (HCA 2015 Guide) (Median if range and rounded or middle if by type)	Job Estimates
Gross Site Area (ha)	Dunton Hills Employment Zone (200)		5.5	55000						
Business Uses	B1a Business		0.2	11000	0.4	4400	4180	3553	12	296
	B1b R&D		0.2	11000	0.4	4400	4180	3553	50	71
	B1c Industrial		0.1	5500	0.4	2200	2090	1986	47	42
	B2 General Industrial		0.05	2750	0.4	1100	1045	993	36	29
	B8 Storage and Distribution		0.05	2750	0.4	1100	1045	993	77	14
	Mixed B Class - Small Business Workspace	Incubator	0.1	5500	0.65	3575	3396	2887	45	64
		Maker Spaces	0.1	5500	0.65	3575	3396	2887	28	103
		Studio	0.1	5500	0.65	3575	3396	2887	30	96
		Co-working	0.1	5500	0.65	3575	3396	2887	13	222

¹Homes and Communities Agency (HCA) Employment Density Guide 3rd Edition – November 2015

		Managed Workspaces	0	0	0.65	0	0	0	30	0
	B8 / SG - Data Centres		0	0	0.4	0	0	0	575	0
	Totals		1.0	55000		27500	26125	22624		938
Gross Site Area (ha)	Land adjacent to Ingatestone by-pass (part bounded by Roman Road) (079C)		2.06	20600						
Business Uses	B1a Business		0	0	0.4	0	0	0	12	0
	B1b R&D		0	0	0.4	0	0	0	50	0
	B1c Industrial		0	0	0.4	0	0	0	47	0
	B2 General Industrial		0	0	0.4	0	0	0	36	0
	B8 Storage and Distribution		0	0	0.4	0	0	0	77	0
	Mixed B Class - Small Business Workspace	Incubator	0.2	4120	0.65	2678	2544	2162	45	48
		Maker Spaces	0.2	4120	0.65	2678	2544	2162	28	77
		Studio	0.2	4120	0.65	2678	2544	2162	30	72
		Co-working	0.2	4120	0.65	2678	2544	2162	13	166
		Managed Workspaces	0.2	4120	0.65	2678	2544	2162	30	72
	B8 / SG - Data Centres		0	0	0.4	0	0	0	575	0
	Totals		1	20600		13390	12721	10812		436
Gross Site Area (ha)	Childerditch Industrial Estate (112D and 112E (a))		5.87	58700						
Business Uses	B1a Business		0.1	5870	0.4	2348	2231	1896	12	158
	B1b R&D		0	0	0.4	0	0	0	50	0

	B1c Industrial		0.3	17610	0.4	7044	6692	6357	47	135
	B2 General Industrial		0.3	17610	0.4	7044	6692	6357	36	186
	B8 Storage and Distribution		0.3	17610	0.4	7044	6692	6357	77	91
	Mixed B Class - Small Business Workspace	Incubator	0	0	0.65	0	0	0	45	0
		Maker Spaces	0	0	0.65	0	0	0	28	0
		Studio	0	0	0.65	0	0	0	30	0
		Co-working	0	0	0.65	0	0	0	13	0
		Managed Workspaces	0	0	0.65	0	0	0	30	0
	B8 / SG - Data Centres		0	0	0.4	0	0	0	575	0
	Totals		1	58700		23480	22306	20968		571
Gross Site Area (ha)	Brentwood Enterprise Park (Codham Hall Extension) (101C)		0.61	6100						
Business Uses	B1a Business		0.1	610	0.4	244	232	197	12	16
	B1b R&D		0	0	0.4	0	0	0	50	0
	B1c Industrial		0.3	1830	0.4	732	695	661	47	14
	B2 General Industrial		0.3	1830	0.4	732	695	661	36	19
	B8 Storage and Distribution		0.3	1830	0.4	732	695	661	77	10
	Mixed B Class - Small Business Workspace	Incubator	0	0	0.65	0	0	0	45	0
		Maker Spaces	0	0	0.65	0	0	0	28	0
		Studio	0	0	0.65	0	0	0	30	0

		Co-working	0	0	0.65	0	0	0	13	0
		Managed Workspaces	0	0	0.65	0	0	0	30	0
	B8 / SG - Data Centres		0	0	0.4	0	0	0	575	0
	Totals		1	6100		2440	2318	2179		59
Gross Site Area (ha)	Land at East Hordon (109 and 187)		5.5	55000						
Business Uses	B1a Business		0.2	11000	0.4	4400	4180	3553	12	296
	B1b R&D		0.2	11000	0.4	4400	4180	3553	50	71
	B1c Industrial		0.2	11000	0.4	4400	4180	3971	47	84
	B2 General Industrial		0.1	5500	0.4	2200	2090	1986	36	58
	B8 Storage and Distribution		0.1	5500	0.4	2200	2090	1986	77	29
	Mixed B Class - Small Business Workspace	Incubator	0	0	0.65	0	0	0	45	0
		Maker Spaces	0.1	5500	0.65	3575	3396	2887	28	103
		Studio	0	0	0.65	0	0	0	30	0
		Co-working	0	0	0.65	0	0	0	13	0
		Managed Workspaces	0.1	5500	0.65	3575	3396	2887	30	96
	B8 / SG - Data Centres		0	0	0.4	0	0	0	575	0
	Totals		1.0	55000		24750	23513	20822		738
Employment Site	Land north of A1023, Shenfield		Use Split	Gross Site Area (m2)	Plot Ratio (Lichfields in part)	GEA (m2)	GIA (m2) (5% reduction rule of thumb)	NIA (m2) (5% industrial / 15% offices reduction rule of thumb)	Employment Density (sqm per job) (HCA 2015 Guide) (Median if range and rounded or middle if by type)	Job Estimates
Gross Site Area (ha)			2	20000						
Business Uses	B1a Business		0.2	4000	0.4	1600	1520	1292	12	108

	B1b R&D		0	0	0.4	0	0	0	50	0
	B1c Industrial		0.2	4000	0.4	1600	1520	1444	47	31
	B2 General Industrial		0.2	4000	0.4	1600	1520	1444	36	42
	B8 Storage and Distribution		0	0	0.4	0	0	0	77	0
	Mixed B Class - Small Business Workspace	Incubator	0.2	4000	0.65	2600	2470	2100	45	47
		Maker Spaces	0.2	4000	0.65	2600	2470	2100	28	75
		Studio	0	0	0.65	0	0	0	30	0
		Co-working	0	0	0.65	0	0	0	13	0
		Managed Workspaces	0	0	0.65	0	0	0	30	0
	B8 / SG - Data Centres		0	0	0.4	0	0	0	575	0
	Totals		1	20000		10000	9500	8379		302
Gross Site Area (ha)	Brentwood Enterprise Park (M25 Junction 29 works site)		25.85							
Business Uses	B1a Business					15289	14525	12346	12	1029
	B1b R&D									
	B1c Industrial					15670	14887	14142	47	301
	B2 General Industrial					8597	8167	7759	36	227
	B8 Storage and Distribution					67669	64286	61071	77	879
	Mixed B Class - Small Business Workspace	Incubator								
		Maker Spaces								
		Studio								

		Co-working								
		Managed Workspaces								
	B8 / SG - Data Centres									
	Totals					107225	101864	95318		2435
		Other uses								121
		Totals								2556

03 TRANSPORT AND MOVEMENT



OVERVIEW

3.1 This chapter of the IDP is concerned with transport and movement. It integrates analysis of the public realm with more traditional transport concerns. Much of the technical analysis on transport impact and mitigation is based upon the recently published Transport Assessment which accompanies the Local Plan.¹

National Issues and Strategies

3.2 Transport planning and strategy is devolved in the UK to country and local levels. The Government's Transport Investment Strategy published in 2017² sets out a number of clear investment ambitions:

- create a more reliable, less congested, and better-connected transport network that works for the users who rely on it;
- build a stronger, more balanced economy by enhancing productivity and responding to local growth priorities;
- enhance our global competitiveness by making Britain a more attractive place to trade and invest, and
- support the creation of new housing.

3.3 Within Essex, the county council has set out its broad transport vision in the adopted Local Transport Plan (LTP)³:

Our Vision is for a transport system that supports sustainable economic growth and helps deliver the best quality of life for the residents of Essex.

¹ PBA Brentwood Transport Assessment 2018 in conjunction with DUP (David Ubaka Placemakers) - www.davidubakaplacemakers.co.uk

² Department for Transport – Transport Investment Strategy: Moving Britain Forward July 2017

³ Essex County Council – Essex Transport Strategy: The Local Transport Plan for Essex (2011)

Through the transport plan, the Essex County Council is seeking to achieve five broad outcomes:

- provide connectivity for Essex communities and international gateways to support sustainable economic growth and regeneration;
- reduce carbon dioxide emissions and improve air quality through lifestyle changes, innovation and technology;
- improve safety on the transport network and enhance and promote a safe travelling environment;
- secure and maintain all transport assets to an appropriate standard and ensure that the network is available for use, and
- provide sustainable access and travel choice for Essex residents to help create sustainable communities.

3.4 Transport pressure groups such as Transport Focus⁴ highlight five key transport user issues (particularly within the context of passenger transport):

- accessibility – around five percent of rail and more than 20 per cent of bus journeys are made by people with disability or long-term illness and accessibility is also an issue with heavy luggage or people with small children;
- disruption – changes to services and cancellations can cause significant problems;
- retailing – the complexity and confusing nature of ticket purchases for public transport;
- tickets and enforcement – developing a more nuanced approach to tackling payment avoidance, and
- future trends / transport – transport on demand, electronic and low emission vehicles, technological innovation, mobile mapping.

There are also been well-documented recent examples of bus services being dramatically cut in England and populations split over the value of road building and rail investment. Transport policy in England is complex and contested.⁵

3.5 One of the interesting recent findings on transport is that we travel less today, per head of population, than we did one or two decades ago. We make 16% fewer trips than 1996, travel 10% fewer miles than in 2002 and spend 22 hours less travelling than we did a decade ago. This is potentially the outcome of societal shifts - how we work and how we shop, changing demographics, shifts in income across the population as well as policies in the transport sector which have encouraged urbanisation; recessionary cycles; the shift to mobile internet and other advances in information and

⁴ <https://www.transportfocus.org.uk/>

⁵ Further information on key transport campaign issues - <https://bettertransport.org.uk/>

communication technologies, plus a range of other factors.⁶ The use of mobile technology and ‘on call’ or subscription transport services is also a potential set of trends.⁷

Infrastructure Snapshot

- 3.6 The Borough is well located for access to the strategic transport network with direct access to the M25, A127, A12, Great Eastern Mainline (calling at Shenfield and Brentwood) and the c2c rail line connecting London Fenchurch Street with South Essex (with a connection at West Horndon Station). The Crossrail project which terminates at Shenfield Rail Station will further increase the accessibility of the area. The Great Eastern Mainline and A12 bisect the centre of the main urban areas in Brentwood and Shenfield, while the A127 and c2C line presents strong physical features towards the south of the Borough.
- 3.7 For strategic transport planning purposes, Brentwood Borough falls within the sub-regional area of the Heart of Essex (Brentwood, Chelmsford and Maldon local authority areas). *The Essex Transport Strategy (June 2011)* (LTP 3) identifies the main centre settlement and local centres within each of the four sub-regions. Chelmsford is identified as the main centre within the Heart of Essex. Brentwood is identified as one of the Local Centres but is identified as serving as an important functional centre in its own right.

Transport and Movement – Local Patterns and Characteristics

- 3.8 According to the 2011 Census data, Brentwood has the highest percentage of residents travelling to work by train in Essex (15.83%) and also the lowest level of driving by car or van to work (36.32%). The East of England travel to work by train figure is 4.83% and travelling by car is 41.39%. Cycling, walking and bus travel to work, are lower in Brentwood than the East of England figures.⁸ A summary of the Census Travel to Work data is detailed below in Table 3.1.

Table 3.1 Census Travel to Work Data (2001 to 2011)⁹

Method of Travel	2001	% of All Workers	2011	% of All Workers	Percentage point Change
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⁶ Information taken from - First Report of the Commission on Travel Demand – All Change: The Future of Travel Demand and the Implications for policy and planning 2018

⁷ <https://www.topgear.com/car-news/future-tech/lynkco-future-car-ownership>

⁸ Method of Travel to Work (QS701EW) (2011)

⁹ There is not an exact comparison available for the datasets in 2001, people who recorded their place of work as working mainly at or from home were considered to have their mode of travel to work as working mainly at or from home (available in dataset UV39). In 2011, people working mainly at or from home could record, for example, that they travelled to work as a driver in a car or van, despite being based at home.

Works mainly at or from home	3197	6.46%	2239	4.23%	- 2.23
Underground, metro, light rail or tram	342	0.69%	683	1.29%	+ 0.6
Train	6612	13.35%	8385	15.83%	+ 2.48
Bus, minibus or coach	755	1.53%	655	1.24%	- 0.29
Taxi or minicab	201	0.41%	227	0.43%	+ 0.02
Driving a car or van	17189	34.72%	19234	36.32%	+ 1.6
Passenger in car or van	1420	2.87%	1219	2.30%	- 0.57
Motorcycle, scooter or moped	295	0.60%	238	0.45%	- 0.15
Bicycle	317	0.64%	337	0.64%	0
On Foot	2376	4.80%	2828	5.34%	+ 0.54
Other Method of Travel to Work	103	0.21%	206	0.38%	+ 0.17
Not in Employment	16707	33.74%	16708	31.55%	- 2.19
All People	49514	100%	52959	100%	

3.9 Census data also provides an insight into commuting patterns. Figure 3.2 below summarises the position, with the main destinations for out-commuters including Westminster, the City of London, Chelmsford and Tower Hamlets, while in-commuters mainly came from Basildon, Havering, Chelmsford and Thurrock. The destinations show that Brentwood has strong outward commuting connections with London and much of the Borough's in commuting workforce comes from the surrounding local

authorities. There is little out commuting from central London to Brentwood, suggesting that the commuting relationship between Brentwood and London is not reciprocal.¹⁰

Figure 3.2 Commuting Patterns

Variable	Brentwood
Number of Working Residents	36,620
Number of Workplace Workers	26,620
Live and Work in Brentwood	16,560
Out Commuting Workers	20,060
Top Out Commuting Destinations	Westminster/City of London, Havering, Basildon, Chelmsford Tower Hamlets
In- Commuting Workers	17,750
Top In Commuting Destinations	Basildon, Havering, Chelmsford, Thurrock, Epping Forest
Net Outflow of Workers	2,310

- 3.10 It is generally acknowledged that congestion on the M25, A12 and A127 is commonplace, especially at peak times leading to unpredictable journey times within the strategic road network. In recent times there has been some capacity improvements through a Highways Agency major four lane widening scheme to the M25 between Junctions 27-30 completed in Summer 2012. An improvement scheme to Junction 28 Brook Street Interchange was also completed in March 2008.
- 3.11 The main local road network within Brentwood and Shenfield also suffers from traffic congestion especially at peak times and during school terms.
- 3.12 At a non-technical level, there are a number of key local trip destinations within Brentwood town centre which include a number of local authority and independent schools, NHS and private healthcare facilities alongside key town centre shopping, retail and leisure functions. While this is not dissimilar to most comparative sized and located towns, there is a particular concentration of facilities (particularly schools), which add significantly to peak congestion.
- 3.13 What makes Brentwood different to many towns is that there has been no major relief, gyratory or one-way system within the town centre. Therefore, traffic continues to be funnelled into road/route system that has not significantly changed for hundreds of years. The narrowness of the roads in the town centre minimises the scope of local highway interventions.

Strategic Transport Projects

- 3.14 The Brentwood Transport Assessment highlights that a number of studies have been progressing, being led by Essex County Council, on the A127 corridor between

¹⁰ Information and Figure reproduced from Brentwood Economic Futures 2013-2033 Final Report – January 2018 (Lichfields)

Southend-on-Sea in the East to the M25 in the west. The final section of this road is within the Borough, including M25 junction 29. The study involves all local authorities, as well as Highways England. Within the Borough, this route is of strategic importance and much of the proposed growth with the Local Plan is proposed along this corridor.

- 3.15 Highways England are currently undertaking work to develop improvements at M25 Junction 28¹¹. A preferred option has been developed for the junction which involves provision of an additional loop which removes northbound M25 to eastbound A12 traffic from the junction.
- 3.16 The Elizabeth Line is a major infrastructure project, which will provide rail services between Reading in the west to Shenfield in the East and which will provide services across London. The project is expected to be completed by late 2018 and will provide very frequent services from both Shenfield and Brentwood Stations, to and through London. At peak times the current planned timetable includes 12 services per hour from both stations to London¹², on top of the existing services that serve these two stations. This will provide a very large increase in capacity for rail travel, as well as the improved service frequencies. In addition, the Elizabeth Line will provide improved access to parts of London and beyond, including Heathrow, which were not previously served directly.
- 3.17 The Lower Thames Crossing is a proposed new road crossing of the River Thames which will connect the counties of Essex (north) and Kent (south). The scheme is being developed by Highways England, a decision on the preferred route for the crossing was made on 12 April 2017.¹³ The planned route is expected to run from the M25 near North Ockendon, cross the A13 at Orsett before crossing under the Thames east of Tilbury and Gravesend. A new link road will then take traffic to the A2 near Shorne, close to where the route becomes the M2. The Lower Thames Crossing Statutory Consultation commenced on October 10th 2018¹⁴.

Local Emissions and Pollution

- 3.18 According to the Essex Transport Strategy (June 2011) (LTP3), road transport is one of the largest sources of CO2 emissions within Essex, accounting for 30% of all the county's emissions. Road Transport-related CO2 emissions emitted for Brentwood amounted to 228 tonnes, when measured in 2008¹⁵. This was significantly lower than the top emission Essex Districts (Chelmsford, Braintree, Colchester and Basildon), which accounted for over 40% of total CO2 emissions.

¹¹ <https://highwaysengland.co.uk/projects/m25-junction-28-improvements/>

¹² <http://www.crossrail.co.uk/route/eastern-section/>

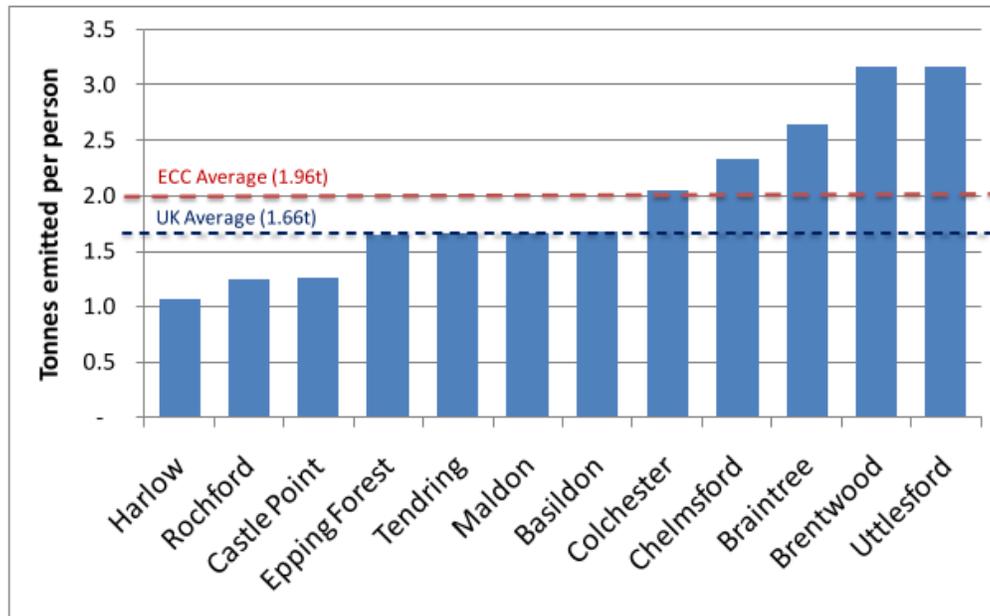
¹³ <https://www.gov.uk/government/news/new-lower-thames-crossings-to-cut-congestion-and-create-thousands-of-jobs>

¹⁴ <https://highwaysengland.citizenspace.com/ltc/consultation/>

¹⁵ National Indicator 186 Local Authority CO2 Emissions – this information will be updated shortly.

3.19 When considering CO2 emissions from road transport on a per person basis, Brentwood has the second highest level of emissions per person in Essex (over 3 tonnes emitted per person). Further information is detailed below in Figure 3.3 and indicates that the figures for Brentwood are significantly higher than the UK and County averages.

Figure 3.3 Road Transport-related Co2 emissions per person by Essex District



3.20 Figure 3.4 (below) also provides information on the Air Quality Management Areas (AQMA) which have been declared by Brentwood Borough Council¹⁶. Declaring an Air Quality Management Area does not mean that the air quality will improve, but the Council has to produce an action plan to help to reduce the effects of pollution by working with the Highways Agency (the Government body responsible for the major roads such as the M25 and the A12) and Essex County Council (responsible for other main roads such as the A128 and A1023) to examine ways of improving the quality of air in Brentwood. Four of the original AQMAs declared in Brentwood have now been revoked, following several years of compliance with the Air Quality Objectives and a trend towards improved air quality - these AQMAs were associated with the A12.

¹⁶ https://uk-air.defra.gov.uk/aqma/local-authorities?la_id=33

Figure 3.4: Air Quality Management Areas

AQMA	Description	Date Declared	Date Amended	Date Revoked	Pollutants
Brentwood AQMA No.1	The AQMA comprises parts of Nags Head Lane, Brentwood and the M25.	10/01/2005		01/01/2017	Nitrogen dioxide NO ₂
Brentwood AQMA No.2	The AQMA comprises parts of Brook Street, Brentwood and the A12.	10/01/2005			Nitrogen dioxide NO ₂
Brentwood AQMA No.3	The AQMA comprises parts of Greenshaw and Porters Close, Brentwood and the A12.	10/01/2005		01/01/2017	Nitrogen dioxide NO ₂
Brentwood AQMA No.4	The AQMA comprises parts of Warescot Road, Hurstwood Avenue and Ongar Road, Brentwood and the A12.	10/01/2005			Nitrogen dioxide NO ₂
Brentwood AQMA No.5	The AQMA comprises parts of Roman Road and Burnthouse Lane, Mountnessing and the A12.	10/01/2005		01/01/2017	Nitrogen dioxide NO ₂
Brentwood AQMA No.6	The AQMA comprises parts of Fryerning Lane, Pemberton Avenue and Trimble Close, Ingatestone and the A12.	10/01/2005		01/01/2017	Nitrogen dioxide NO ₂
Brentwood AQMA No.7	The AQMA comprises parts of Ongar Road, Ingrave Road, High Street and Shenfield Road, Brentwood in proximity to Wilsons Corner (the junction of the A128 and A1203).	10/01/2005			Nitrogen dioxide NO ₂

Public Spaces and Movement

- 3.21 There is a strong relationship between enhancing the public realm and strategies which make places more walkable, legible and connected. The provision of good quality pedestrian and cycling environments can form part of the overall vision for an area in terms of the place-making and redevelopment. Design Council CABI described attractive and well-used outdoor spaces as one of the seven principles of successful places.¹⁷ In areas where there has been an investment in the public realm it demonstrates a sense of civic pride and a value attached to public life. The public realm including such spaces as squares, paved areas, streets and parks can be designed to bring energy, connectivity and a sense of character to an area. Investment in the public realm also makes long term economic sense- stimulating growth in the visitor economy, raising property values and increasing income and profit for local businesses.

¹⁷ CABI 2011 Seven Principles of Good Design

- 3.22 Brentwood Town has seen some significant public realm investment in its main High Street, Crown Street and St. Thomas Road, which included shared surfacing, crossings, seating and other works. The scheme was shortlisted for the Essex Design Initiative Award in 2010 and was runner up for the RICS Award 2010: Community Benefit.

Walking

- 3.23 The Local Plan places a policy emphasis upon enhancing and increasing options for walking to reduce dependencies on private car use and improvements to public transport – particularly along the Southern Growth Corridor and strategic growth sites. Policy in the LTP also encourages increasing walking levels and the use of Public Rights of Way (PROW). Policy 15 – Walking and Public Rights of Way, highlights that:

The County Council will promote walking and use of the Public Rights of Way network by:

- *promoting the benefits of walking;*
 - *facilitating a safe and pleasant walking environment that is accessible to all;*
 - *improving the signage of walking routes;*
 - *ensuring that the public rights of way network is well maintained and easy to use by walkers, cyclists and equestrians.*
- 3.24 ECC has also produced the Essex Walking Strategy (2010) for the County which focuses upon a wide range of pedestrian related issues including:
- Improving pedestrian routes and networks (signage and specific action areas)
 - Improving the environment for walking (maintenance, street lighting, street cleaning, utilities works, parking on the footpath and specific action areas)
 - Pedestrianisation (commercial considerations, accessibility, pedestrian security and action planning)
 - Planning and designing for sensory and mobility impairment
 - Road safety and speed reduction
 - Making crossing easier
 - Public transport interchanges
 - Walking and cycling infrastructure
 - Crime and fear of crime
 - Recreational walking

- Travel plans and safer journeys to school
- Promotion and health benefits

3.25 While Census figures indicate a low percentage of people travelling to work by foot, Department for Transport analysis taken from the Sport England Active People survey indicates that a higher than Essex and England percentage of adults walk at least once per month (90.6%); once per week (86.2%) and at least three times per week (62.7%). Walking for both recreation and utility purposes score above Essex and England averages. Brentwood is also the only Essex Borough which scores higher than the Essex and England averages for percentage of adults usually walking recreationally across all lengths of time per day.¹⁸

Cycling

3.26 The Local Transport Plan provides a strong focus upon enabling and promoting increases in cycling activities for all types of trips. Policy 14 – Cycling states:

The County Council will encourage cycling by:

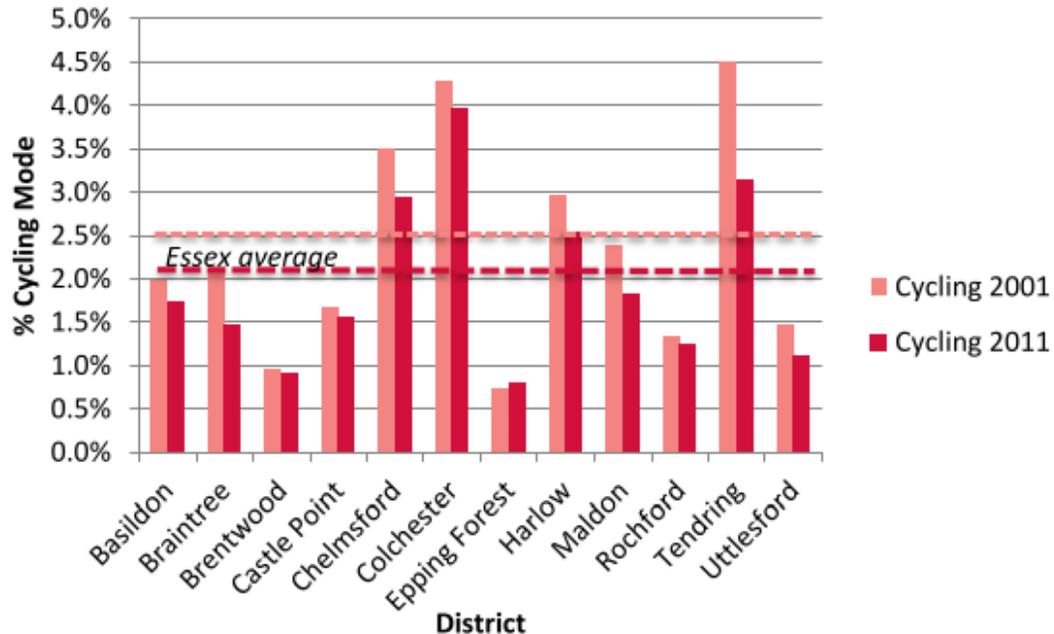
- *Promoting the benefits of cycling;*
- *Continuing to improve the cycling facilities within the main urban areas of Basildon, Chelmsford, Colchester and Harlow;*
- *Developing existing cycling networks in other towns where cycling offers an appropriate local solution;*
- *Working with schools and employers to improve facilities for cyclists;*
- *Improving access to local services by integrating the Public Rights of Way, walking and cycling networks to form continuous routes; and*
- *Providing training opportunities to school children and adults.*

3.27 Baseline data in the Brentwood Cycle Strategy (Sept 2014) (BCS) on cycling activity in Brentwood Borough indicates a very low level of participation. Figure 3.5 below is taken from the BCS and indicates that Brentwood has the second lowest level of cycling to work in Essex, with less than 1% of journeys to work being made by bike. When comparing the Census periods, the statistics indicate a slight reduction in cycle to work activity in 2011 compared to 2001. Department for Transport data (based upon Sport England survey analysis) suggests that a lower than Essex average percentage of adults cycle at least once per month and 3 times per week. The data would tend to suggest a very small proportion of the adult population who cycle for recreation at least 5 times per week, at a percentage rate which is significantly higher than the Essex averages. Brentwood scores low for adults who cycle for utility against Essex, East of England and England averages.¹⁹

¹⁸ Department for Transport – Local Area Walking and Cycling in England: 2015 to 2015 (Published July 2016)

¹⁹ Department for Transport – Local Area Walking and Cycling in England: 2015 to 2015 (Published July 2016)

Figure 3.5: Cycling to Work



- 3.28 When comparing national Census Cycling to Work 2011 data indicates that In Cambridge, 29% of working residents cycled to work, making it the local authority with highest rate of cycling to work. The next highest rate was in Oxford (17%) followed by Isles of Scilly and Hackney at 14%. The data also indicates that there are 31 local authorities where over 5% of working residents cycled to work. The proportion was greater than 10% in six of these local authorities. There were also 29 local authorities where less than 1% of working residents cycled to work (including Brentwood). The four local authorities with the lowest rates were all in Wales with Merthyr Tydfil the lowest with 0.3% of working residents cycling to work in 2011.²⁰
- 3.29 The Census data pre-dates the London 2012 and Rio 2016 Olympics, with research conducted by the London School of Economic (LSE)²¹ suggesting that people are increasingly taking up cycling for fun with family and friends as a recreational pursuit rather than just transport, with a connection being made between elite sporting success and grassroots participation. The ‘Olympics effect’ has raised the profile of cycling across the UK and it would be unreasonable to consider that there has not been an impact in Essex, although this is difficult to measure. This effect has also potentially

²⁰ ONS ‘2011 Census Analysis – Cycling to Work’ 26 March 2014 (England and Wales)

²¹ LSE September 2012 ‘The Olympic Cycling Effect’ (Report Prepared for Sky and British Cycling)

been enhanced by recent UK success in the Tour de France and other major cycling events.

- 3.30 In 2016, Brentwood Borough Council started to develop through a partnership of local cycling enthusiasts, highways engineers, rights of way specialists, planners, healthcare and environmental health specialists a comprehensive network of existing and potential cycle routes covering the Borough and beyond. Some of this work is now informing an update to the current cycle action plan for Brentwood.
- 3.31 The Local Plan places a policy emphasis upon supporting cycle friendly developments across the Borough and with a particular focus upon strategic sites, including Dunton Hills Garden Village. The LTP also encourages increasing walking levels and the use of Public Rights of Way (PROW). Policy 15 – Walking and Public Rights of Way, highlights that:

The County Council will promote walking and use of the Public Rights of Way network by:

- *promoting the benefits of walking;*
- *facilitating a safe and pleasant walking environment that is accessible to all;*
- *improving the signage of walking routes;*
- *ensuring that the public rights of way network is well maintained and easy to use by walkers, cyclists and equestrians.*

Passenger Transport – Bus

- 3.32 When a bus network is operating effectively it has a number of key benefits for society including:
- Freeing up time, the time of users to catch-up on correspondence or simply sit back and relax;
 - Providing an economical form of transport particularly if multi-purchase / seasonal tickets are purchased;
 - Convenient – can link people close to services and facilities with bus information now available online and in real time;
 - Can help improve mental and physical health by walking to and from the bus stop;
 - Improve road safety by taking more cars off the road (one bus can do the job of 40 cars) and reducing the incidents of road accidents;

- Cut congestion and reduce the cost of delays and constraints on growth to the economy and
- Help reduce greenhouse gases - just one person opting to take the bus rather than drive to work every day can reduce their carbon footprint by up to 3.8 tonnes per year²².

3.33 Census data for England and Wales indicates that workers commuting by public transport increased by 14.5 percentage points in 2001 to 15.9 percentage points in 2011²³. However, Bus / coach travel dropped from 7.4 to 7.2 percentage points in total. When comparing Census data for the Brentwood area, it indicates a slight reduction in bus, minibus and coach travel.²⁴

3.34 Figure 3.6 below benchmarks bus travel to work 2011 Census data with Essex District, East of England and England data.

Figure 3.6: Benchmarking Bus Travel

Locations	% of Travel to Work by Bus, Minibus or Coach	Lowest Quartile	Highest Quartile
Basildon	2.23		
Braintree	1.55		
Brentwood	1.24		
Castle Point	2.27		
Chelmsford	2.74		
Colchester	3.83		
Epping Forest	1.42		
Harlow	3.70		
Maldon	1.04		
Rochford	2.21		
Tendring	1.31		
Uttlesford	1.04		
East of England	2.50		
England	4.85		

²² Benefits and information taken from Travel York – Why Take the Bus?

²³ Dataset - 2011 Census Analysis - Method of Travel to Work in England and Wales Report

²⁴ Datasets – Methods of Travel to Work – Resident Population (UV39) 2001 Census, and Method of Travel to Work (QS701EW) All Usual Residents Aged 16-74, 2011 Census

3.35 From this Census analysis it indicates that bus travel to work within Brentwood Borough is within the lowest quartile of districts within Essex, with only Maldon and Uttlesford showing lower levels of bus travel to work. Chelmsford, Colchester and Harlow are showing the highest level of travel to work by bus in Essex, based upon this 2011 Census data analysis.

Passenger Transport – Rail

3.36 The method of travel to work rates by rail in Brentwood are by percentage of usual residents, the highest in Essex and significantly higher as a percentage than the regional and England rates. Figure 3.7 below provides a summary of comparative travel to work by train data for Essex.²⁵

Figure 3.7 Method of Travel to Work by Train

Local Authority Area	Number of Residents Travelling by Train to Work	Percentage of All Usual Residents (aged 16-74)
Basildon	13737	10.92%
Braintree	6295	5.90%
Brentwood	8385	15.83%
Castle Point	5747	8.89%
Chelmsford	11364	9.19%
Colchester	6655	5.18%
Epping Forest	2732	3.01%
Harlow	1723	2.94%
Maldon	2339	5.15%
Rochford	6423	10.63%
Tendring	2815	2.90%
Uttlesford	3495	6.12%
East of England	205077	4.83%
England	1343684	3.46%

3.37 Figure 3.8 below provides an analysis of the number of entries and exit per railway station within the Brentwood Borough over the time-period 2010/11 to 2014/15. It can be noted that Shenfield has witnessed the highest number increase in passengers entering and exiting the station - up by 550,344 from the 2010/11 baseline position - a

²⁵ Datasets – Methods of Travel to Work – Resident Population (UV39) 2001 Census, and Method of Travel to Work (QS701EW) All Usual Residents Aged 16-74, 2011 Census

percentage growth of 18.74%. Ingatestone Station has witnessed a lower growth in the overall total number of passenger exits / entries, but the highest percentage growth of any of the stations (based upon the original baseline) at 19.41%. West Horndon Station's growth levels are very modest.²⁶

Figure 3.8 Railway Station Usage – Exits and Entries

	2010/11 total number of entries and exits made at the station	2011/12 total number of entries and exits made at the station	Number and % Growth (2010/11 - 2011/12)	2012/13 total number of entries and exits made at the station	Number and % Growth (2011/12 - 2012/13)	2013/14 total number of entries and exits made at the station	Number and % Growth (2012/13 - 2013/14)	2014/15 total number of entries and exits made at the station	Number and % Growth (2013/14 - 2014/15)	Total Number of Passenger exits / entries (2010/11 to 2014/15)	Total % Growth (based upon 2010/11 baseline)
Brentwood Railway Station	2420930	2495480	74550	2701998	206518	2809578	107580	2871330	61752	450,400	
% Growth			3.08%		8.28%		3.98%		2.20%		18.60%
Shenfield Railway Station	2936428	2991100	54672	3131298	140198	3314120	182822	3486772	172652	550,344	
% Growth			1.86%		4.69%		5.84%		5.21%		18.74%
Ingatestone Railway Station	636170	694754	58584	715974	21220	750746	34772	759626	8880	123,456	
% Growth			9.21%		3.05%		4.86%		1.18%		19.41%
West Horndon Railway Station	338058	329908	-8150	350210	20302	355416	5206	355630	214	17,572	
% Growth			-2.41%		6.15%		1.49%		0.06%		5.20%
Benchmarks											
Chelmsford	7335952	7876686	540734	8002126	125440	8286879	284753	8381166	94287	1,045,214	
% Growth			7.37%		1.59%		3.56%		1.14%		14.25%

²⁶ Data for Table 4.5 extracted from Office for Rail and Road Estimates of Station Usage Time Series – 1997/98 to 2014/15

Community Transport, Taxis and Private Hire Vehicles

- 3.38 Community and voluntary transport can play an important role in the provision of transport for people who are unable to access conventional public transport services, due to a variety of reasons including impaired mobility, lack of public transport provision and cost of transport.
- 3.39 Taxi services (more formally known as hackney carriages) and Private Hire Vehicles (PHV) provide an individual, mostly door-to-door micro transit system offered to the public by commercial businesses at a local level. They provide services which fill the gap left by public transport services and can provide a flexible alternative to private car use. In 2008, the average person made 11 trips in taxis or private hire vehicles. Taxis and PHVs are used by all social groups, with low-income young women (amongst whom car ownership is low) being one of the largest groups of users. Taxis and PHVs are also increasingly used in innovative ways - for example as taxi-buses - to provide innovative local transport services.²⁷

Private Vehicles

- 3.40 Comparative Census travel to work data indicates that those travelling to work in Brentwood by car or van has increased from 17,189 (2001) or 34.72% to 19,234 (2011) or 36.32%. However, it can be noted that the figures for 2011 are still lower than the England rate of 36.90% and the East of England figure of 41.39%.²⁸
- 3.41 According to the Census 2011, there is an average access to 1.43 cars / vans per household in Brentwood, which is higher than the East of England rate of 1.33 and England rate of 1.17. In the Brentwood area, where households have an available vehicle there are higher levels of accessibility across all quantities of vehicle access (households with 1, 2, 3 and 4+ vehicles), than the regional and national (England) rates. Only 14.86% of households did not have access to cars / vans, this compares to 18.55% for East of England and 25.80% for England.²⁹
- 3.42 In line with earlier observations about declining levels of travel, the Brentwood Transport Assessment indicates that the reliance on private car overall is also falling in recent years. Figure 3.9 shows that whilst population has increased between 2002 and 2014, car traffic has remained static and car traffic per capita and average distance travelled has decreased over the same period. Whilst the past may not be a full indication of future trends, this should be considered important in the context of Local Plan growth³⁰.

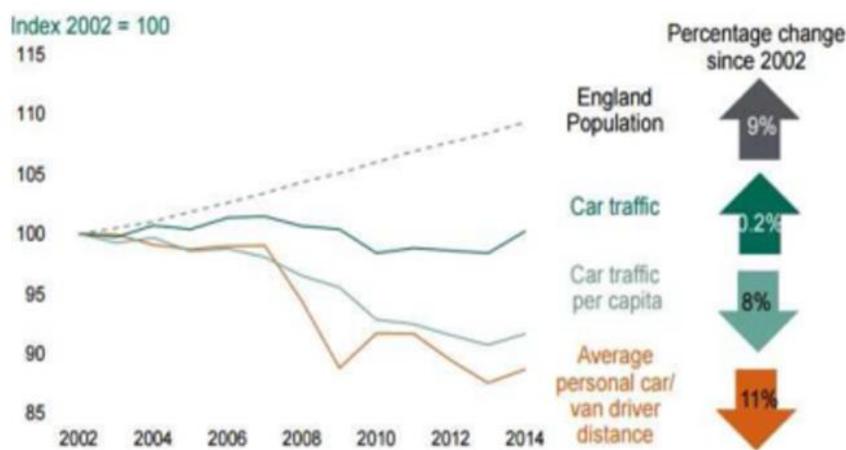
²⁷ Information from DfT Taxi and Private Hire Vehicle Licensing – Best Practice Guidance March 2010

²⁸ Census data – Method of Travel to Work (QS701EW) (2011)

²⁹ Census data – Car or Van Availability (QS416EW) (2011)

³⁰ Information from PBA Brentwood Transport Assessment 2018 p4

Figure 3.9: Traffic and Travel Trends 2002 to 2014



Source: On the Move 2, Dec 2016, Peter Headicar & Gordon Stokes on behalf of ITC

Freight

- 3.43 With the proximity of Essex to international gateways and the ports at Felixstowe, London Gateway and Tilbury in close proximity to the county’s boundaries, significant volumes of freight are transported through Essex. Around 6% of traffic on Essex’s roads is made up of HGVs, rising to nearly a fifth on the Essex section of the M25, 16% on the M11 and around 14% on sections of the A12 and A1208. In addition, around 50 freight trains pass through Essex each day, travelling mainly between Felixstowe and the North-West via London³¹.

EXISTING INFRASTRUCTURE, GAPS AND PROJECTS

- 3.44 This section of the transport chapter reviews existing infrastructure in more detail and pulls out key gaps or infrastructure pressures and any initiatives to tackle current infrastructure problems.

Modelling Brentwood’s Highways Network

- 3.45 Traffic modelling work has been undertaken by PBA on behalf of the Council to inform the transport assessment to support the Local Plan³². To derive traffic volumes for the assessment a three-stepped approach has been undertaken:
- obtaining base data from observed counts – The Base Case Scenario;

³¹ Information from the LTP3 (2011)

³² This section of the IDP uses extracted information from the Brentwood Transport Assessment – further technical details are available in the main publication.

- applying background growth – The Reference Case Scenario, and
- adding on trips associated with the Local Plan proposals – The Local Plan Growth Scenario.

The traffic modelling has been progressed using a spreadsheet model, which then provides for a series of modelled junction.

3.46 The key junctions modelled in the transport assessment are detailed below in Figure 3.10.

Figure 3.10: Modelled Junctions

ID	Junction	Junction Type
1	A1023 Chelmsford Road / Hutton Road / A1023 Shenfield Road	Signalised Junction
2	A129 Rayleigh Road / Hanging Hill Lane	Mini Roundabout
3	A128 Ongar Road / Doddinghurst Road	Mini Roundabout
5	A128 Ongar Road/William Hunter	Priority Junction
6	A128 Ongar Road / A1023 Shenfield Road / A128 Ingrave Road / A1023 High Street	Double Mini Roundabout
7	A128 Ingrave Road / B186 Queens Road	Mini Roundabout
8	A128 Ingrave Road / Middleton Hall Lane / Seven Arches Road	Signalised Junction
10	A1023 High Street/ B185 Kings Street	Signalised Junction
12	Western Road/William Hunter Way	Priority Junction
13	A127 / A128 Brentwood Road / A128 Tilbury Road	Roundabout
14	A127 / Childerditch Lane	Priority Junction
15	A128 Ingrave Road / The Avenue	Double Mini Roundabout
16	A128 Brentwood Road /Running Waters	Double Mini Roundabout
17	A1023 Brook Street /Mascalls Lane	Signalised Junction
18	B186 Warley Hill / Eagle Way / B186 Warley Road / Mascalls Lane	Signalised Junction

19	B186 Warley Street / A127 eastbound	Priority Junction
20	B186 Warley Street / A127 westbound	Priority Junction
22	A1023 Chelmsford Road / Alexander Lane	Priority Junction
23	A12 Junction 12	Roundabout
24	Roman Road / A12 Slip	Priority Junction
25	M25 Junction 28	Grade Separated Roundabout
26	M25 Junction 29	Grade Separated Roundabout
27	A128 Tilbury Road/Station Road	Priority Junction

- 3.47 Using a geographical information system, the road network was extracted from a digital road network for all of Essex, with mean link speeds derived from GPS data. Based upon a geographical zoning system, zone connectors were generated between each zone centroid(s) and its nearest node on the road network, then the road network and zoning system were imported into specialist transport modelling software. This was used to generate:
- travel-time and distance matrices for use in the trip distribution and mode share elements of trip modelling, and
 - after trip matrices had been calculated, assigning the trip matrices to the network to determine link flows and turning flows at road junctions.
- 3.48 Within the modelling, the origin of trips is assumed to be residential dwellings, which is used to determine how many people live in each defined zone and how many trips each person is likely to make. The trip modelling also includes variables for different levels of accessibility (for example urban / rural) and trend data indicating a reduction in commute trips per person over time. In the model homes-based generated trips were also separated by purpose (e.g. education or shopping trips) and non-homes based trips used a similar method. The trip distribution stage, produces a matrix of trips for each purpose, selected option and time-period. Further work was then undertaken to separate out mode share by type (walking, cycling, public transport and car-derived).
- 3.49 The outputs from the spreadsheet approach detailed above are used within specific junction models with associated specialist software to understand the performance of each junction (which are calibrated and validated), before and after Local Plan development levels is applied.

3.50 Based upon the approach detailed above, PBA then run an unconstrained (worst case) or reference case scenario to understand network and junction performance. It is assumed within a congested network that travellers will only accept a certain level of 'pain' before changing travel behaviour. The output from the worst-case scenario modelling shows a number of key junctions under stress, the worst being:

- A128 Ongar Road/William Hunter Way
- A128 Ingrave Road /B186 Queens Road
- A128 Ingrave Road / The Avenue / A128 Brentwood Road / Running Waters
- A1023 Brook Street/Mascalls Lane
- Warley Hill/Eagle Way
- M25 Junction 28
- M25 Junction 29

The A127/B186 junction is not included within this list, as there is a committed scheme which provides adequate capacity for growth.

3.51 Importantly, in order to more realistically model the change in travel behavior due to congested junctions, a hierarchy of choices approach has been used. The key elements of the hierarchy of choices approach include: route reassignment, peak spreading (people travelling earlier or later because of congestion) and sensitivity analysis applied to trip frequency (recognising the changing patterns and frequency of travel). To reduce the impact of developments on the overall road network, a wide range of sustainable transport mitigation is also considered as part of the transport assessment. The discussion on Local Plan development impact and mitigation is detailed further in this chapter under the 'Impact of Growth' sub-heading.

3.52 Local Highways Panels (LHP) have been set up by Essex County Council in all 12 Boroughs, City and Districts to make recommendations and set priorities for smaller (<£100k capital) highways schemes in their area. The panels meet on a quarterly basis and discuss a rolling work programme. The detailed programmes are not covered within this part of the IDP, but an indication of programmes and priorities is available in Part B of the IDP document.

Off-Street Car Parking

3.53 The Council commissioned JMP to develop a baseline report and parking strategy for LA off-street parking facilities within the Borough³³. A number of key issues and opportunities were highlighted during the baseline reporting and stakeholder engagement process. These are summarised below:

- There are some constraints on the level of parking provision within Brentwood, Shenfield and Ingatestone, with a number of central car parks operating close

³³ JMP Consultants Ltd Brentwood Parking Strategy – Baseline Report November 2016

to or at capacity. Projected future employment and housing growth is likely to increase parking demand within the three locations.

- Whilst the general condition of most Council-operated car parks is considered good, there are a number of locations that require improvements in order to provide high quality, safe and secure environment. Coptfold Road multi-storey is a notable example; however, other car parks in need of improvement works include Sir Francis Way and Westbury Road.
- Whilst on-street and off-street parking are managed by separate authorities, it is important that neither are considered in isolation.
- The provision of additional short-term parking in the three locations would be beneficial for accessing the available retail offer; however, geographical constraints impede the ability to expand current parking provision.
- Given the key role of Brentwood, Shenfield and Ingatestone as commuter locations, an appropriate balance between short-stay and commuter parking is required.
- The introduction of 'pay on exit' payment systems, as used at Coptfold Road, may encourage longer dwell times in the town centre.
- It is important that off-street parking is managed appropriately to ensure minimal impact upon wider traffic movements on the local highway network.
- Appropriate provision for disabled blue badge parking across the three locations is important.
- Improving way-finding and signage infrastructure can help improve navigation for visitors and help to identify the location of all car parks.
- Effective enforcement can help to improve the efficiency and management of parking and minimises incidences of inappropriate parking.

Since this report was finished investment works have been undertaken on the Multi-story car park.

- 3.54 Although not a focus of the car park strategy, there are clear opportunities within Brentwood to introduce public e-charging points in appropriate car park locations.

Brentwood Town Centre – Public Realm

- 3.55 The Brentwood Town Centre Regeneration Strategy³⁴, sets out a range of regeneration priorities which relate to the public realm including:

- Improving the pedestrian links and passages to William Hunter Way and Kings Road;

³⁴ Brentwood Town Centre Regeneration Strategy (2010)

- Physical improvements to Chapel of St Thomas a Beckett area and Baytree Centre;
- Enhancing the connectivity to Brentwood Railway Station;
- Improving the quality of the Town’s key side streets including Moores Place, South Street and Hart Street; and
- Tackling the wider issues, symptoms and cures surrounding town centre car use, congestion and car parking.

3.56 Building upon the Town Centre Regeneration work, Levitt Bernstein was commissioned in September 2016 to produce a Town Centre Design Plan which focuses upon place-shaping and ultimately producing a plan (effectively policy guidance) for Brentwood Town to help shape new buildings, spaces, links, and uses. This plan contains a number of observations on the town centre public realms including:

- the lack of spatial character of Kings Road compared to the High Street;
- the downscaling of certain streets in the centre (Crown Street and Hart Street in particular) has contributed to them becoming secondary public realm elements that complement the High Street, and
- the gateways to the High Street and entrance space north of Brentwood Train Station are important but currently lack place-making are poorly defined spatially and car dominated.

3.57 The key areas identified in the plan for site development and public realm enhancement include:

- William Hunter Way Car Park – significant potential to become an extended quarter of the town centre with residential and non-residential uses;
- Baytree Centre Area – improving the linkages and connections through the centres at various levels of intervention;
- Westbury Road Car Park – infill development that also looks to improve the western gateway to the High Street;
- Chatham Car Park – residential infill development and public realm enhancement to include possibly recovering the historic market square.

The study also recognises the importance of improving the spatial character of Kings Road, enhancements to the Chapel of St Thomas a Beckett area and the public realm surrounding Brentwood Railway Station. The public realm around the railway station has been subject to masterplanning in conjunction with Essex County Council, Brentwood Borough Council and the train operators.

Shenfield Railway Station and Surrounds

3.58 Shenfield Railway Station acts as a new terminus for Crossrail but suffers from significant congestion and a public realm environment within the immediate vicinity of

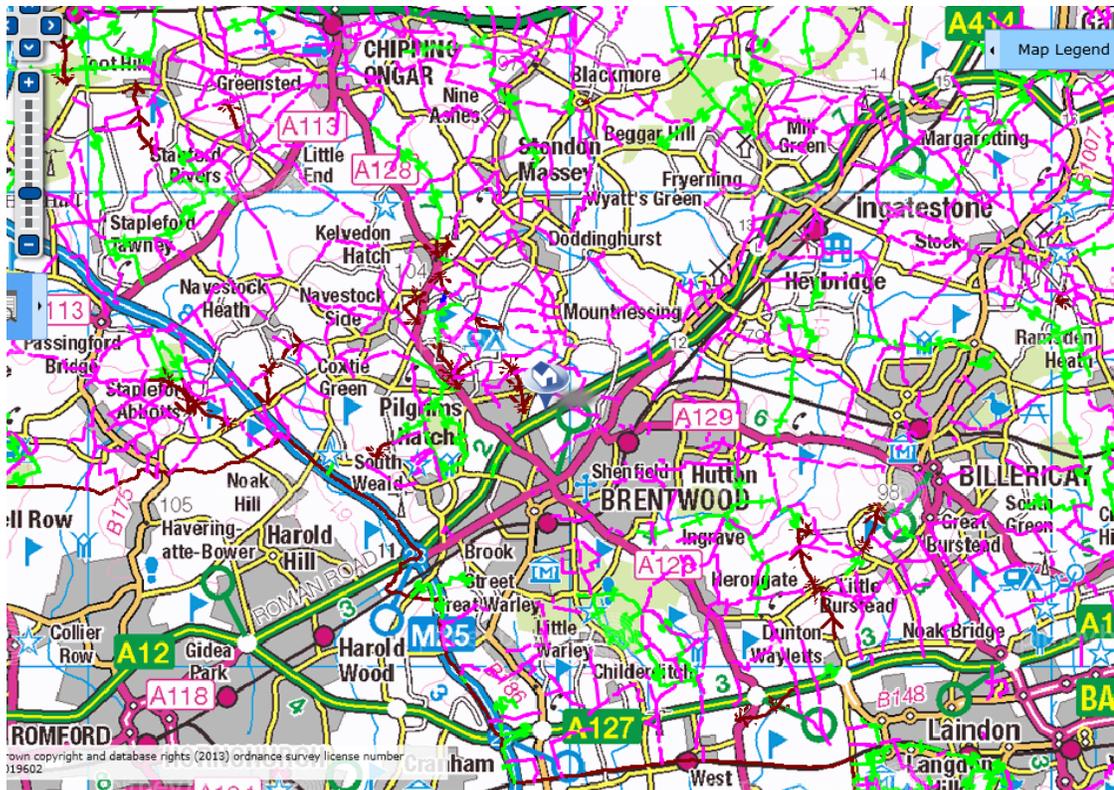
the station which is of extremely poor quality with limited disabled access and a confusing array of vehicle, pedestrian and cyclist movement. The main High Street is also of low quality in terms of the public realm with poor accessible connections to the car parks. Greater Anglia is currently working upon an Access to All bid for access improvements at the station. The public realm environment around the station has also been subject to masterplanning in conjunction with Essex County Council, Brentwood Borough Council and the Greater Anglia.

Walking and Public Rights of Way

- 3.59 Brentwood Borough Council encourages people to use the local countryside through access to defined Public Rights of Way (PROW). The Council works with the Brentwood Countryside Management Volunteers (BCMV) jointly to help maintain 243 km of rights of way in the Borough on behalf of Essex County Council. The network is made up of a diverse series of footpaths, bridleways and byways.
- 3.60 The PROW interactive map³⁵ is reproduced below (Figure 3.11) and illustrates a particularly strong network of routes to the north of Pilgrims Hatch with linkages to Doddinghurst and Kelvedon Hatch (routes in pink dashes). There is also a reasonably strong network of routes between Stondon Massey, Blackmore and beyond. There are more limited PROW networks south and south east of Brentwood Town, although there is strong connectivity through Thorndon Country Park.

Figure 3.11 Public Rights of Way – Brentwood Borough

³⁵ The interactive Map of Public Rights of Way is for general use only – it is not the statutory Definitive Map which is held at County Hall.



3.61 There are also cross-over issues between walking and some of the issues detailed under the public realm sections. There are also opportunities to improve connectivity and walkability to key destinations such as schools, health facilities and transport hubs.

Cycling

3.62 The current cycling infrastructure network and infrastructure within the Borough is poorly developed and consists mainly of:

- a limited fragmented range of urban on street cycle routes – primarily focused upon Brentwood Town;
- a fragmented network of off-road routes to the south of Brentwood but connected to part of Thorndon Country Park;
- linear longer routes (mixture of off-road and on-road) through and to the north and west of Pilgrims Hatch;
- a longer linear route to the north west of Shenfield, and
- well used railway station cycle parking, often of poor quality and lacking security or supporting facilities;

The cycle network appears to have developed organically in piecemeal manner rather than through a clear strategy. Figure 3.11 below provides an overview of current cycle network infrastructure within the Borough.

Figure 3.11 Current Cycle Networks

To insert

- 3.63 The Brentwood Cycling Group historically identified a range of barriers to the growth of cycling in the Brentwood Borough. These included:
- overcoming physical barriers to cycling, including strategic transport corridors and difficult road junctions;
 - high traffic speeds in rural areas;
 - improvements required to cycle-parking facilities – particularly linked to Town Centres and Transport Hubs;
 - lack of connected and segregated cycle lane infrastructure;
 - disconnected village and countryside routes, and
 - a lack of awareness of cycling opportunities locally.

It is understood that ECC is undertaking further work on a cycle action plan for Brentwood, building upon the original work of the group.

Bus Infrastructure

- 3.64 The frequency of services and extensiveness of the bus network within the Borough is illustrated thematically below in Figure 3.12.

Figure 3.12 Bus Network

To Insert

This figure has been informed by the bus service information contained in Appendix X³⁶.

- 3.65 The key headlines from the mapping of bus services includes:
- Brentwood, Hutton and Shenfield – Urban Core: Frequent linear and circular services. Shenfield Railway Station not as well served as Brentwood Railway Station for bus connections. Some of the suburban estate services are more limited.
 - North West of the Borough - Very frequent but limited stop weekday and Saturday services between Pilgrims Hatch and Brentwood Town and Brentwood Railway Station (no.37). More limited and often infrequent services north of

³⁶ Information was collected in 2016 and is subject to updating.

Pilgrims Hatch, covering rural areas and villages. The No.61 service (formerly 261 service) linking Brentwood with Blackmore was recently saved from closure by ECC and is currently run by Ensign Bus.

- South East of the Borough - Limited weekday and Saturday service via West Horndon (no.565).
- Connections to Other Locations: Fairly frequent daytime weekday and Saturday services between Brentwood and Basildon (no.9) and fairly frequent and extensive weekday, Saturday and Sunday service between Brentwood and Romford (no.498). Fairly frequent weekday and Saturday services between Brentwood and Chelmsford. More infrequent weekday and Saturday services to Grays (no. 268/269).
- Sunday and Evening Services: Very limited (every 2 hour) Sunday services to Pilgrims Hatch no.37; Mountnessing / Ingatestone / Chelmsford no.351; Brentwood circular via Shenfield and Hutton no 80A/C. Recent cut-backs in evening services (no.37).

3.66 Whilst Brentwood Town Centre is well serviced by daytime and evening bus services, services are restricted in both Shenfield and Ingatestone (and very restricted towards the south of the Borough). The majority of bus services that serve Shenfield offer either limited or no service at weekends. Similarly, no night buses serve Shenfield. Only one daytime bus service serves Ingatestone, and broadly follows the route of rail services, with no evening or night service serving the area. The provision of improved bus services, both in terms of locations served and service frequency may help to reduce parking demand in the main built-up areas. A series of measures such as Park and Ride, reduced car parking levels / premium priced spaces and express bus routing to key destinations may help improve bus viability.

Rail Infrastructure

3.67 The Borough is well served by rail transport with two active rail lines. The Abellio Greater Anglia (AGA) runs north east/south west across the Borough and the c2c line runs east/west across the southern portion of the Borough. As noted earlier in the chapter, the Travel to Work Census data indicates that rail travel is the second most popular form of transport to work (15.83% of the working population travel by this mode), with only travel by car / van being more popular (36.32%).

3.68 The AGA service connects London Liverpool Street with Norwich and there are stations serving Brentwood Town, Shenfield and Ingatestone. The c2c line connects Shoeburyness via Southend Central and Basildon with London Fenchurch Street with one rail station in the Borough at West Horndon. Shenfield represents the most strategically important as it is an interchange rail station which allows connections to the AGA branch to Southend Victoria and intervening stations to Stratford. Shenfield Station is also the north-eastern terminus of Crossrail which is currently under construction.

- 3.69 A significant proportion of the fast trains on the AGA call at Shenfield and all of the Southend Victoria bound train. Through trains serve Ingatestone on a less frequent basis and Brentwood Station is currently served solely by the slower Metro service (which will be effectively replaced by the Crossrail service) which stops at intervening stations to London Liverpool Street. West Horndon is served by trains to travelling east towards Shoeburyness and Southend and west towards London Fenchurch Street.
- 3.70 Crossrail will increase capacity especially at Brentwood Station from 12 trains in peak hours³⁷ to 24 trains. There is also a slight improvement in travel times to key London destinations. Shenfield Station will benefit from an increased frequency of train services to London and the convenience of services which enable passengers to travel to key London destinations without changing train. Fast services into Liverpool Street will be unaffected by the introduction of the new Crossrail service. Crossrail is planned to open on a phased basis from 2017, although full Crossrail services from Brentwood and Shenfield will be from December 2019.

Community Transport, Taxis and Private Hire Vehicles

- 3.71 Brentwood Community Transport (BCT) plays an important role in the provision of transport for people who are unable to access conventional public transport services, due to a variety of reasons including impaired mobility, lack of public transport provision and cost of transport.
- 3.72 In addition to the 898 Queens Shopper Bus service and 808 Community Hospital circular service, noted under bus services earlier in this chapter, the BCT also delivers a:
- **Social Car Scheme** - used by members when they need transport for – Shopping, Doctor, Dentist, Chiropodist, Optician, Visit Friends / Family, Hospital (visits only, not appointments), Social, Further Education, Lunch Clubs.
 - **Minibus Brokerage Scheme** - available to local non-profit making groups who need fully accessible transport. Bookings are subject to vehicle and driver availability. Groups can provide their own drivers, providing they meet our training standards. The minibuses can be booked for – Group Outings, Theatre Trips, Shopping, Kids Clubs, Restaurants, Social Clubs, Exercise Classes, Luncheon Clubs, Meetings. An annual membership fee is payable to join the scheme. Groups assist with the cost of the journey by making a contribution depending on usage.
 - **BCT Organised Day Trips**
Throughout the year, a number of outings are arranged on our accessible minibuses, using a volunteer driver. The trips are planned in advance and

³⁷ Morning peak 07.00-09.00, Evening Peak 17.00-19.00

members are notified. Trips can be around various parts of Essex, such as Essex Villages, or perhaps a trip to a shopping centre.

IMPLICATIONS OF GROWTH

- 3.73 This section of the chapter focuses upon the impact of growth on transport infrastructure and potential mitigation measures. The information in the IDP draws extensively from the Transport Assessment which accompanies the Local Plan.

Highways Modelling

- 3.74 The overall impact of growth has been measured using the proposed Local Plan development sites (housing and employment) plus any Local Plan or committed developments from adjacent local authorities that would be likely to have an impact upon highways within the Borough. Where no information was made available from Local Authorities (e.g. Thurrock), growth is included as part of the overall background growth. The growth from neighbouring authorities have been added to a 'reference case scenario' from which the Brentwood Local Plan sites are tested.

- 3.75 To reduce the impact of developments on the overall road network within Brentwood Borough the Transport Assessment considers alternative methods of transport other than the car to lessen the impact of strategic development sites. As required within NPPF and the Local Plan Transport Evidence base guidance, sustainable transport interventions will form the main part of any mitigation required to provide additional mobility capacity within the system. These issues are discussed in the relevant sections below (para x to x), before detailed consideration of physical highways mitigation measures.

Sustainable Transport

- 3.76 The potential to create an integrated sustainable transport network, linking railway stations, places of employment, new residential developments and existing development in the wider Brentwood area is key in achieving a reduction in car dependency and influencing other travel, where there is capacity already available or where it can be created through various travel initiatives. These will have an impact on travel, both related to specific Local Plan sites, but also the wider community, as the Local Plan facilitates the investment required.
- 3.77 A key part of the Transport Assessment mitigation strategy is to influence school travel, which is adding to congestion within Brentwood town centre in the AM peak. This creates not just issues with junction capacity but impacts on the ability of traffic to travel smoothly through the area, as parked vehicles cause conflicts. One example of

how improvements could be achieved in a relatively cheap and achievable way is through the provision of a School Clear Zone which is a key element is reducing peak hour trips within Brentwood town centre.

3.78 The Transport Assessment also sets out a range of measures to support the delivery of sustainable growth within the A127 growth corridor associated with Dunton Hills Garden Village, redevelopment of West Horndon Industrial Estate, expansion of Childerditch Industrial Estate and new strategic scale employment opportunities proposed Brentwood Enterprise Park. The key measures are set out below in Figure 3.14.

Figure 3.14 – Southern Growth Corridor: Sustainable Transport

To insert – DU plan

3.79 There are specific policy requirements within the Dunton Hills Garden Village to promote car light development and a strong network of walkways and cycleways throughout the scheme and the early adoption of bus infrastructure. There are also opportunities on the project to innovate with significant new infrastructure for e-charging, cycle hubs and smart infrastructure during the delivery period of the project. Establishing strong connectivity to West Horndon Railway station and wider areas through sustainable transport infrastructure will also be a key marker of success for the scheme. Both DHGV and West Horndon development will also necessitate the development of new village centres, with associated public realm infrastructure.

3.80 Figure 3.15 below pulls out the key headline sustainable transport projects from the Transport Assessment with supplements with a range of other measures linked to issues identified earlier in this chapter. The items in blue form part of the transport mitigation measures in the Transport Assessment. As a package of measures to reduce car dependency these projects need to be central to the Local Plan. It is recognised that further feasibility / business case analysis is required in some measures and the timing of delivery will be across the plan period, broadly in line with the timeframe outlined in the Figure 3.15. Long-term project concepts, which are potentially beyond the plan period such as the Essex Rapid Transit system are not included in Figure 3.15.

Figure 3.15: Sustainable Transport Measures

Item	Description	Timeline	Comment
	Mitigating the impact of traffic - BUA		
1	Create School Clear Zone to restrict all vehicles from stopping, parking for drop off during AM/PM	SHORT - MEDIUM	Parking allowed in legally designated car parks and spaces on the High St within the zone. Should reduce congestion at

	peaks from a specific area(s).		AM peak. Additional benefit of improving air quality at Wilson Corner. Public Transport exempt.
2	Deliver Park, Ride or Stride facilities for workers within Brentwood T.C. or drop/pick up off points for parents to drop off their children.	MEDIUM	Impact on local traffic patterns would need to be understood. Work needed with schools to re-educate parents. Consider an electric and ordinary bicycle hire scheme hub. Additional option to include bus service for schools from these hubs.
3	Policy requiring all new developments dependent on location to be 'Car light' and/or encourage e-vehicles.	SHORT	Difficult given political situation Consider partnership with car club company providing electric cars or low emission hybrids
4	Travel plans – support / promote personalised travel planning and smarter travel choice options	SHORT	Deliver a set of focused smarter travel programmes and supporting literature / web resources
Reduce vehicle emission levels and future-proof infrastructure			
5	Introduce electrical parking points to encourage use of such vehicles and plan and deliver other IT infrastructure redundancy to allow future implementation of emerging SMART systems.	SHORT / MEDIUM	All new residential and commercial developments should include e-charging spaces for car clubs using e-vehicles and charging hubs for e-bikes. Important to facilitate sustainable north/south movements from DHGV to Central Brentwood.
6	Ban all large freight vehicle from stopping deliveries within the Central Brentwood zone and A128 corridor during AM/PM peaks.	MEDIUM	New developments sites won't compete with Central Brentwood as the retail centre. The larger population could lead to more large vehicles stopping for extended periods to service new developments and a busier High Street.
7	Review of air quality management area (AQMA) action plan	SHORT	Focused review of existing action plan with updates on forward strategy
Public Realm Improvements			

8	Introduce a pedestrian wayfinding system like Legible London.	SHORT / MEDIUM	Residents and employees of new developments and the existing population should be encouraged to walk more.
9	Prioritise public realm improvements within Brentwood Town Centre linked to site development opportunities	MEDIUM / LONG	There are opportunities for significant enhancement of the public realm linked to key brownfield development sites including William Hunter Way.
10	Support major improvements to public realm at Shenfield and Brentwood Railway Stations	SHORT / MEDIUM	Building upon the stakeholder endorsed masterplanning work to introduce a series of public realm, accessibility and connected infrastructure improvements
Walking / Cycling			
11	Introduce new walking and cycling infrastructure within new developments – particularly strategic sites	MEDIUM / LONG	Site by site analysis required of options to introduce new walking and cycling infrastructure linked to new development and wider green infrastructure
Cycle Infrastructure			
12	Plan and deliver in phases cycle routes in Brentwood UA initially connecting Transfer Hubs to Town Centre schools. Feasibility analysis into wider network development options.	MEDIUM	Segregated routes where possible. Where not consider contra-flow cycling routes by creating new one-way streets. Consider 20mph in the zone.
13	Undertake feasibility / business case analysis into widening cycle networks across the Borough and beyond	MEDIUM / LONG	Work by the local cycle group identified a wide range of cycle network enhancement which require further analysis as part of cycle action planning
14	Introduce high quality cycle parking and supporting facilities at the Borough's railway stations	SHORT	Many of Brentwood's key rail stations suffer from poor cycle infrastructure, which requires upgrading.
Bus Infrastructure			
15	Feasibility study into bus service improvements –	SHORT	Some evidence that service improvements could be made to bus

	particularly linked to new developments and major transport hubs		services to support transport hubs such as Shenfield Station.
	Community Transport		
16	Create and/or promote a multiple service App making access to smart car hire/ car clubs / community buses/ booking bikes (including e-bikes) etc. easier.	SHORT	Partner with software organisation that creates community-based apps. Pays for itself through advertising
	Southern Growth Corridor		
17	Public Realm - New village centres / civic square at West Horndon industrial estate redevelopment	MEDIUM / LONG	Subject to detailed masterplanning there will be a need to provide high quality public realm or civic square associated with the redevelopment
18	Strategic Cycle Route – Connecting major development sites along the southern growth corridor	MEDIUM / LONG	Mixed environment cycle route with supporting infrastructure connecting DHGV, West Horndon, Childerditch Industrial Estate and Brentwood Enterprise Park
19	New Bus Route Infrastructure – new linked bus route serving key new developments within the southern growth corridor	MEDIUM	Early adoption of bus infrastructure within DHGV and other key extension / development sites supported with appropriate infrastructure with connection via West Horndon Transport Interchange. Also review changes to NHS hospital services and transport implications.
20	West Horndon New Transport Interchange - Create through phases a new multi-modal interchange at West Horndon Station	MEDIUM	This interchange will serve the DHGV, Childerditch, West Horndon and Enterprise Development sites, plus any future Northern Thurrock developments.
	Dunton Hills Garden Village		

21	Feasibility studies into green bridge (A127) and pedestrian underpass (A128)	SHORT	Options to be explored looking at feasibility of providing additional connectivity to surrounding areas.
22	Walkways / Cycleways - Network of new walkways / cycleways across the development potentially linked to rights of ways and key ecology corridors	MEDIUM / LONG	Significantly opportunities at an early stage in the development to engrain a series of strategic walkways / cycleways across the scheme
23	Cycle Hub and Charging Points - Dunton Hills e-bike / cycle hub – integrated cycle hub with supporting facilities	MEDIUM / LONG	Opportunity to engrain enhanced cycle facilities within the scheme to promote and support the uptake of e-cycles and conventional bikes / possible link to e-charging infrastructure
24	Public Realm - New pedestrian focused village centres / civic square at DHGV	MEDIUM / LONG	Subject to detailed masterplanning there will be a need to provide high quality public realm or civic square associated with the garden village

Highways Mitigations

3.81 Post implementation of sustainable transport measures as detailed above in Figure 3.15, there are a number of highways junction improvements which will need to be made connected to the impact of new growth across the Borough. These are detailed below in Figure 3.16.

Figure 3.16: Highways Mitigations

Location	Detail
M25 Junction 29 Brentwood Enterprise Park link road	Potentially a new link road required to access Brentwood Enterprise Park
A128 Ingrave Road / The Avenue	Junction mitigation measures - Double Mini-Roundabout - Widening of exit taper onto A128 Ingrave Road, Widening to three lanes between Junction 15 and 16.
A128 Brentwood Rd / Running Waters	Junction mitigation measures - Double Mini-Roundabout - Widening of A128 Brentwood Road to increase stacking capacity up to the roundabout.

Roman Road / A12 Slip	Junction mitigation measure - staggered priority - A12 Slip road widening to provide dedicated left and right turn lanes. Traffic signals implemented
A127 / A128 Brentwood Road / A128 Tilbury Road	Junction mitigation measures - Grade Separated Gyratory - Installation of signals at the end of the A127 westbound off-slip
Junction 27 A128 - Tilbury Road / Station Road	Junction mitigation measure - priority - Station Road widening to provide dedicated left and right turn lanes.

FINANCIAL IMPLICATIONS

- 3.82 Part B of the IDP outlines indicative costs associated with the various transport mitigation measures. Further work will be required on updating the costs as the Local Plan and its various supporting transport projects move forward.

04 Energy



OVERVIEW

- 4.1 The Council commissioned the University of Exeter to undertake a renewable energy study for the borough in 2014.¹ This study provides some useful insights into the current energy demand and carbon emissions in the Borough. Using sub-national energy statistics to 2011², the following findings are worth noting:
- Approximately half of all energy used was for transport, of which a fifth (10% of the Brentwood total) was due to road transport on the M25;
 - A third of energy used was for the domestic sector, with the remaining 18% of energy use in the commercial and industrial sectors;
 - Within the commercial and industrial sector the main fuel used was electricity (44%), followed by gas (36%) and petroleum products (17% - which is likely to be entirely due to the industrial sector).
 - Within the domestic sector approximately three quarters of energy use was gas, with almost all of the remainder electricity – there was a very small amount of oil use in homes.
 - Excluding energy use to the M25, the breakdown of energy use is 20% in the commercial and industrial sector; 37% in the domestic sector and 43% in the transport sector.
- 4.2 As an overview of the domestic, commercial and industrial energy use, the National Heat Map,³ provides a set of electronic maps showing heat demand from buildings. Figure 4.1 provides selected topic maps for Brentwood Borough, which indicates when comparing the proportion of dwellings at a LLSOA level, that high energy consumption is lowest where there are generally high proportions of terraced housing and flats. The majority of flats are located within the town of Brentwood. Brentwood has similar proportions of semi-detached houses and flats compared to the national average, though a much greater proportion of detached houses at the expense of terraced

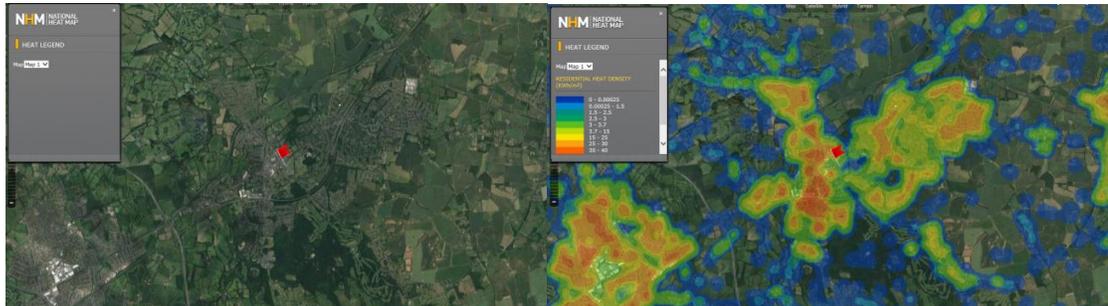
¹ University of Exeter – Renewable Energy Study for Brentwood Borough Council April 2014 – D Lash & A D S Norton

² <https://www.gov.uk/government/organisations/department-of-energy-climate-change/series/sub-national-energy-consumption> (accessed 09/10/13)

³ <http://tools.decc.gov.uk/nationalheatmap/> (accessed 21/02/16)

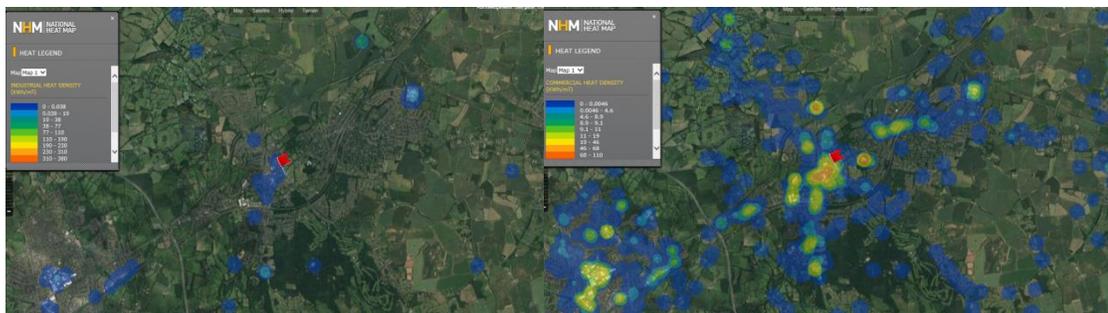
houses. This pattern of house types is likely to be related to its historical economic base and proximity to London.⁴

Figure 4.1: Heat Maps



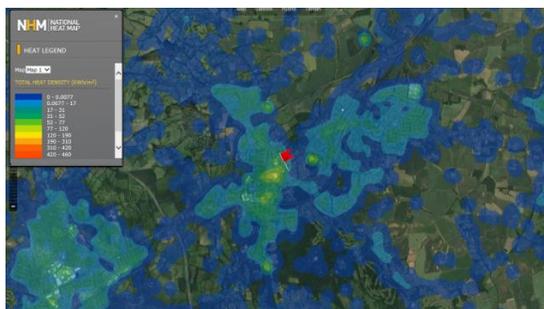
Brentwood Urban– No Energy Info

Brentwood Urban Residential Heat Density



Brentwood Urban – Industrial Heat

Brentwood Urban – Commercial Heat



Brentwood Urban – Total Heat Density

4.3 Statistical information from the Department for Business, Energy and Industrial Strategy (BEIS)⁵, indicates that the Brentwood Borough has relatively high levels of domestic gas and electricity consumption. Over the period 2010 -2015, Brentwood had the highest level of domestic customer mean gas consumption in the County and was also significantly higher than the England and East of England averages for the same period. Electricity usage for Brentwood ranks about 4th in the County and also significantly higher than the England and East of England averages for the period 2010-2015. Further information is detailed below in Figure 4.2 One of the reasons for the higher domestic energy use in Brentwood is generally that homes in the Borough are

⁴ Information reproduced from the University of Exeter study – also see pp10-13 for further analysis

⁵ BEIS Sub-national consumption statistics

13% larger than homes in England on average. Domestic emissions are sensitive to the weather, though over time have fallen mainly due to the impact of improved energy efficiency.⁶

Figure 4.2: Average Domestic Electricity and Gas Use (2010-2015)

Area	Average Domestic Electricity Consumption Per Household (kWh) 2010-2015	Average Domestic Gas Sales Per Meter (kWh) 2010-2015
Brentwood Borough	4627	17,034.50
Essex Average	4420	14,679.50
East of England	4281	14,099
England	3998	13,901

4.4 While this is a brief snapshot of Brentwood now, it is predicted that the energy landscape in the UK over the next 10 to 20 years will change significantly to a lower carbon system. Potential macro drivers of change include:

- technological innovation and investment to convert energy more efficiently, with a possible move to more locally produced or decentralised energy;
- domestic security and managing fluctuating fuel prices and disruptions to fuel supplies;
- a flexible range of reliable supplies to respond to energy peaks and demands;
- responding to the challenges of climate change and reducing the use of carbon-rich fuels;
- affordable energy supply to both suppliers and end customers
- societal change, including adaptation to new technology and use of energy.⁷

⁶ Information taken from P.8 University of Exeter – Renewable Energy Study for Brentwood Borough Council April 2014 – D Lash & A D S Norton

⁷ Insights from Innovate UK - <https://innovateuk.blog.gov.uk/2018/03/06/predictions-the-future-of-energy/> and <https://www.edfenergy.com/future-energy/uk-energy>

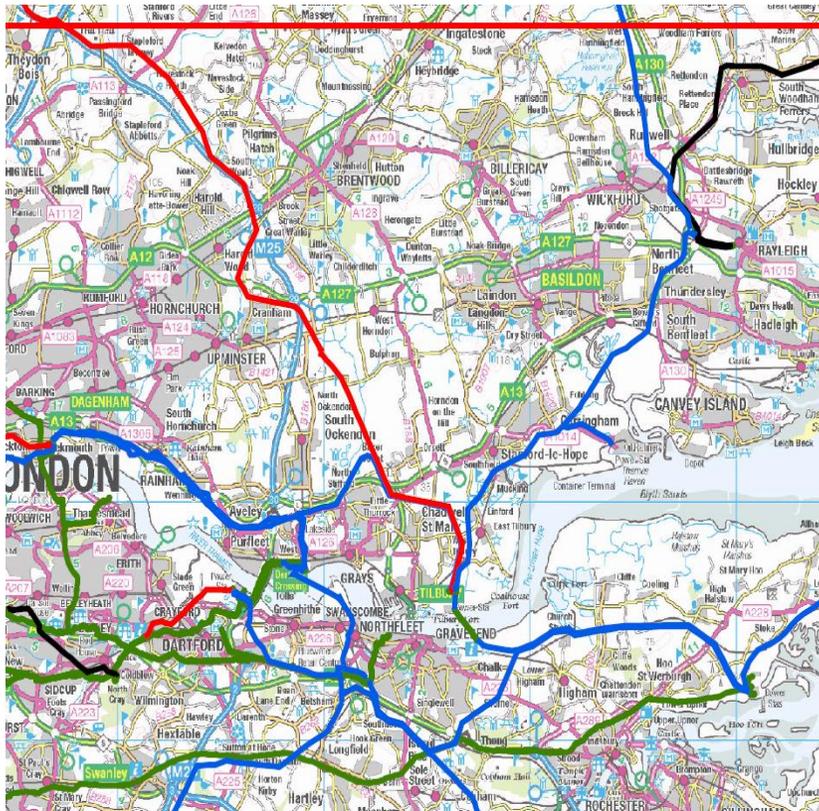
EXISTING INFRASTRUCTURE, GAPS AND PROJECTS

Electricity Transmission and Distribution – Existing Infrastructure

- 4.5 National Grid owns and operates the high voltage electricity transmission system in England and Wales providing electricity supplies from generating stations to local distribution companies. To facilitate competition in the supply and generation of electricity, National Grid must offer a connection to any proposed generator, major industry or distribution network operator who wishes to generate electricity or requires a high voltage electricity supply.
- 4.6 Often proposals for new electricity projects involve transmission reinforcements remote from the generating site, such as new overhead lines or new development and substations. If there are significant demand increases across a local distribution electricity network area, then the local network distribution operator may seek reinforcements at an existing sub-station or a new grid supply point. In addition, National Grid may undertake development works at its existing substations to meet changing patterns of generation and supply. UK Power Networks owns and operates the local electricity distribution network within the Brentwood Borough Council administrative area.
- 4.7 The electricity transmission network carries large quantities of electricity across long distances through cables and overhead lines. The electricity transmission network carries high voltages of electricity at up to 400kV, which is more than 1,600 times the average domestic supply.⁸ Figure 4.3 below provides information (indicated in red) on the National Grid Overhead High Voltage cable route, as it applies to part of the South Essex area. It can be noted that there is one main route which are of relevance to the Brentwood area, namely: ZB Route - 275kV two circuit route from Waltham Cross Substation in Epping Forest to Warley substation in Havering (route to the west of the Borough).

⁸ *Energy Networks Association ; Guide to the UK and Ireland Energy Networks*

Figure 4.3 National Grid Overhead High Voltage Cables



4.8 UK Power Networks owns and operates the local electricity distribution network within the Brentwood area. The electricity distribution network takes energy from the wires of the electricity transmission network and converts it into lower voltage so that it can be safely delivered to homes and businesses. In general terms, the boosted 275,000V electricity transmission is reduced to 132,000V for the local Distribution Network Operator (DNO) and then reduced again to commercial and household use (ranging from 33,000V to 230V). Substations are where electricity lines are connected and switched and where voltage is changed by transformers. The range of typical substations is outlined below ⁹:

- National Grid – large substations where 400kV and 275kV lines are switched and electricity transformed down to 132,000V;
- Sealing End Compounds – where an overhead line joins onto an underground cable;
- Intermediate Substations – smaller than National Grid sub stations and transform electricity between 132,000V, 33,000V and 11,000V;

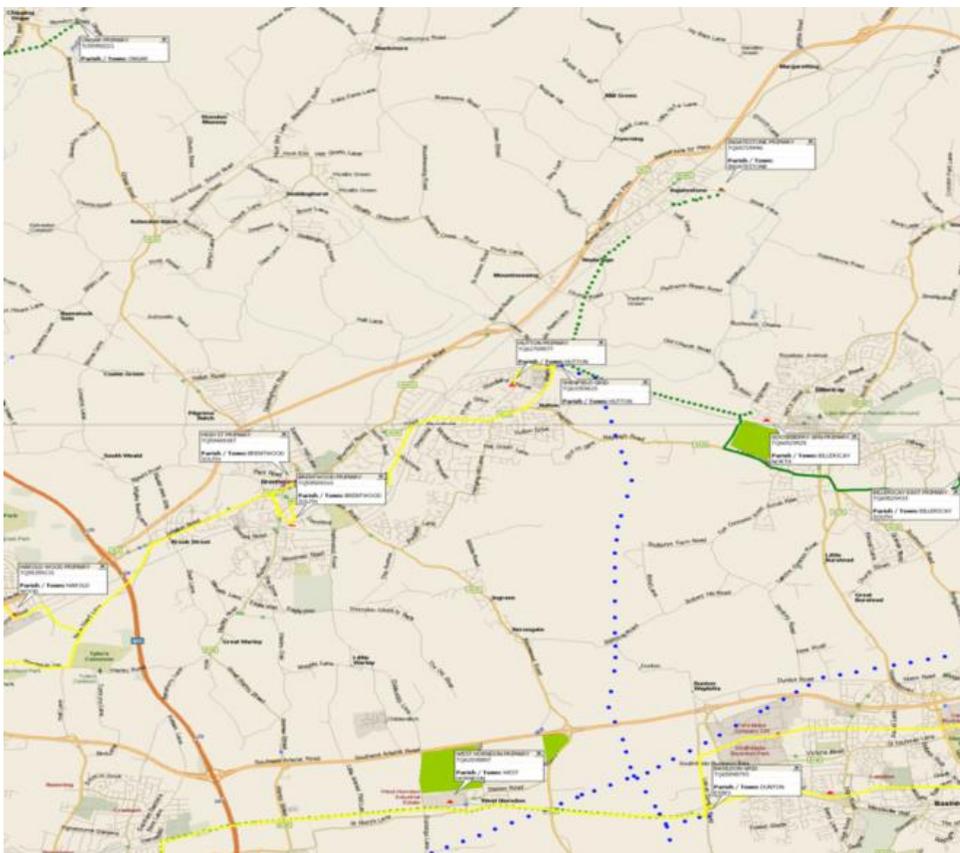
⁹ *Typology extracted from EMFS.info*

- Final Distribution Substations – transform the electricity from usually 11,000V to 230V for domestic usage.

4.9 The UK Power Network Regional Development Plan (Barking, Warley and West Thurrock) reviews the UKPN Grid Supply Points (GSP) which supply the London Borough’s of Barking & Dagenham, Havering and the Essex boroughs of Thurrock and Brentwood. The combined area has approximately 201,000 customers and is generally a dense urban part of Outer London and Essex.¹⁰

4.10 The area is supported from two National Grid infeeds (Warley and Tilbury) to the UK Power Networks 132kV system. There are two main Grid substations (Shenfield and Basildon) connected to nine primary substations across the Brentwood and surrounding area. These are detailed below in Figure 4.4 (small red triangles)¹¹. Figure 4.5 (below) also provides a more thematic overview.

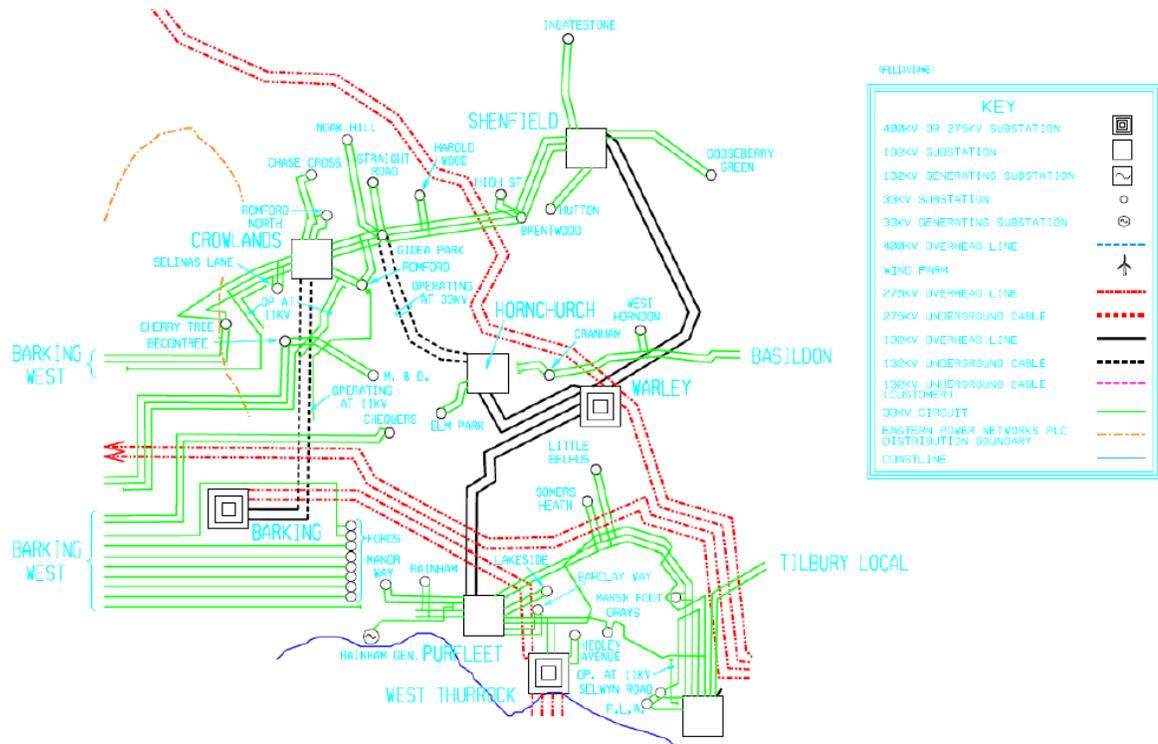
Figure 4.4: Primary sub-stations



¹⁰ Information source - <http://library.ukpowernetworks.co.uk/library/en/RIIO/>

¹¹ Map courtesy of UKPN.

Figure 4.5: UKPN Electricity Distribution Network



4.11 The winter demand figures for 2016/17 are detailed in Figure 4.6 and whilst these are representative the readings can fluctuate year on year by up to 10% due to the length and intensity of the winter cold spell that occurs¹². This table highlights sufficient capacity compared to demand for the period indicated.

¹² Information and table supplied by UKPN.

Figure 4.6: Substation Operating Capacity and Winter 2017/17 Demand

Substation	Operating Voltage	Winter Capacity 2017	Winter Demand 2016/17
		(MVA)	(MVA)
Brentwood Primary	33/11kV	24	15.3
Gooseberry Green Primary	33/11kV	15	11.2
Harold Wood primary	33/11kV	23	11.6
High Street Primary	33/11kV	19	14.6
Hutton Primary	33/11kV	19	14.8
Ingatestone Primary	33/11kV	13	8.8
Langdon Primary	33/11kV	24	8.2
Ongar Primary	33/11kV	20	18.1
West Horndon Primary	33/11kV	6	6
Basildon Grid	132/33kV	114	48
Shenfield Grid	132/33kV	114	88
Warley Exit Point National Grid	400/132kV	560	265
Tibury Exit Point National Grid	400/132kV	144	120

Electricity Transmission and Distribution – Gaps in Existing Provision

- 4.11 Much of the Borough’s electricity network and substations were originally built during the 1950’s and early 1960’s and whilst a substantial amount of work has been done in the last 10 years to address asset ‘health’ issues there remains a challenge to update and replace the network to deliver a network suitably appropriate for this area.
- 4.12 The UKPN Regional Development Plan (RDP) recognises that the potential commercial electricity users within the Thames Gateway area and London financial districts with nearby data centre requirements demands high electricity volume / usage. The RDP also recognises, that the overall area is also identified for substantial housing development.

Electricity Transmission and Distribution – Potential Projects or Plans

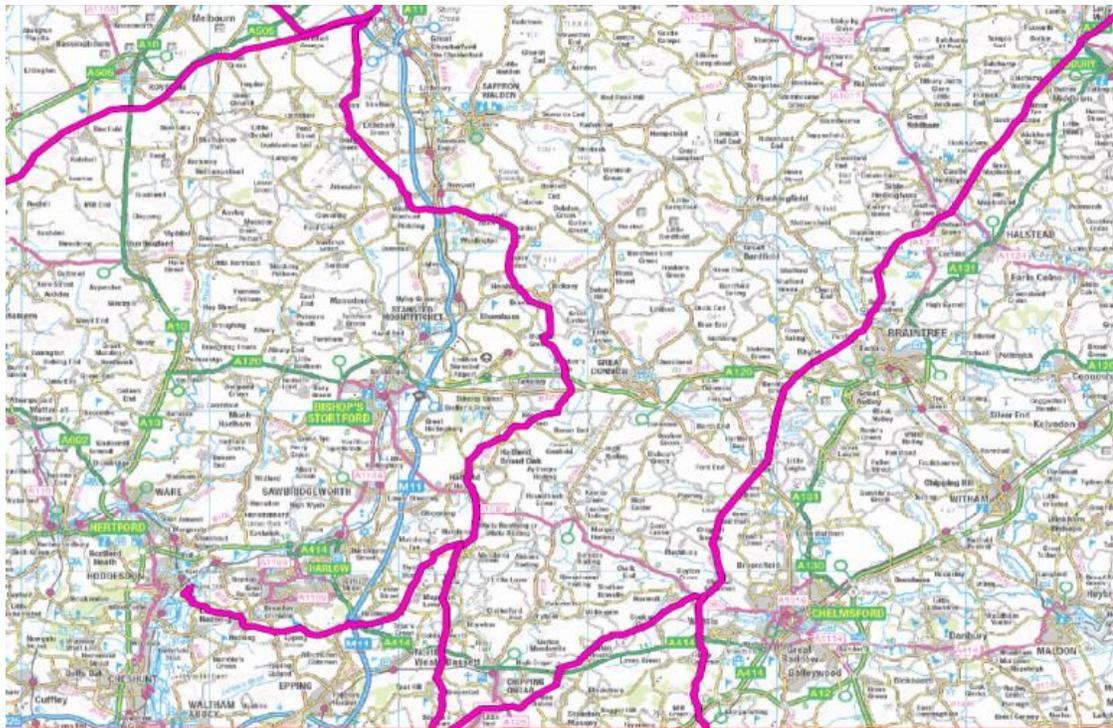
- 4.13 Looking ahead for the remainder of the OFGEM ED1 review period there are plans to replace a 33/11kV transformer at High Street Primary and possibly at West Horndon Primary as well. The replacements will provide coincidental reinforcement as new transformers sizes will be larger than those being replaced. The 33kV switchgear at Shenfield Grid is under review for replacement, though this will improve reliability rather than provide additional network capacity. The 11kV switchgear at Hutton primary is also still in the plan to be replaced. The Grid substation at Basildon has recently undergone a major refurbishment with new transformers and some new switchgear, increasing the capacity at the site substantially. At the UK Power Networks / National Grid (NG) interface there are ongoing discussions to review the connection

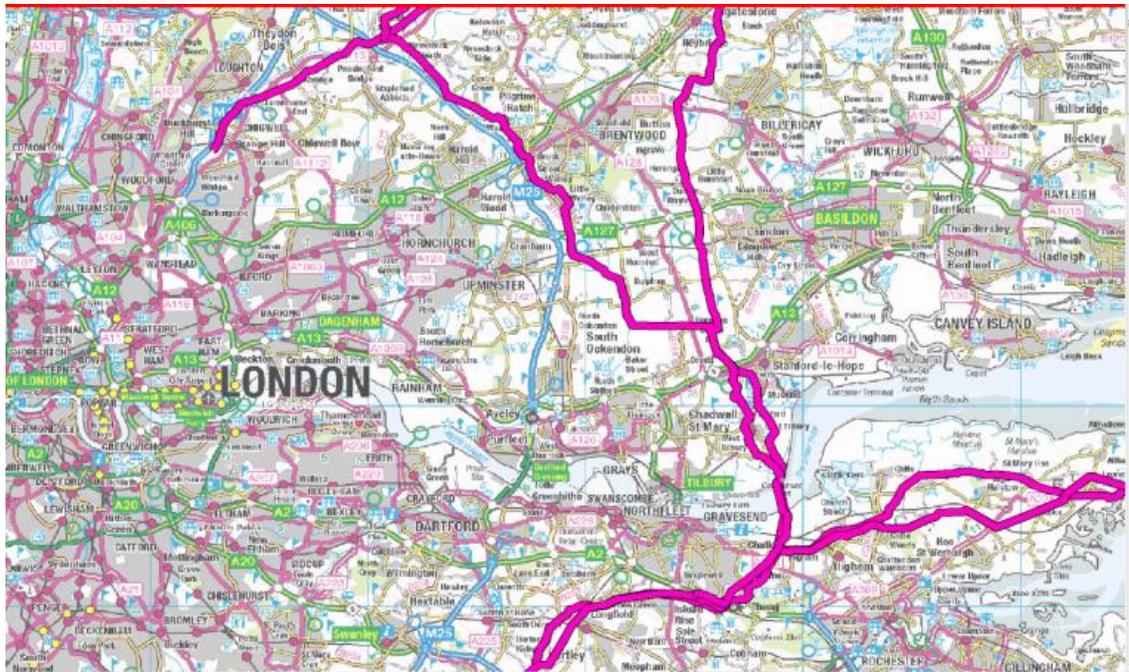
of the NG assets at Tilbury. Information with the site promotor for Dunton Hills Garden Village, has indicated that the pylon infrastructure across this potential development site is nearing the end of its life and may need replacement.

Gas Transmission and Distribution – Existing Infrastructure

- 4.14 National Grid has a duty to develop and maintain an efficient and economical transmission system for the conveyance of gas and respond to requests for new gas supplies in certain circumstances. In the UK, gas leaves the transmission system and enters the distribution networks at high pressure. It is then transported through a number of reducing pressure tiers until it is finally delivered to consumers.
- 4.15 The national transmission high pressure gas pipelines which are of relevance to the Brentwood Borough are detailed below in Figure 4.7 and are namely pipeline FM18 – Stapleford Tawney to Tilbury Thames North (36” diameter pipeline running from the north west of the Borough (running south of South Weald and then onwards running near Great Warley and onwards and FM05 – Braintree to Horndon (36” diameter pipeline running from the north east of the Borough - north of Ingatestone, east of Hutton and then onwards south through the eastern edge of the proposed Dunton Hills Garden Village to near Horndon).

Figure 4.7: National Transmission High Pressure Gas Pipelines





- 4.16 The Borough also has a series of gas distribution apparatus within the administrative area of Brentwood Borough. This includes Low Pressure (LP) and Medium Pressure (MP) Gas Pipes and associated equipment and six High pressure (HP) (above 2 bar gas pipelines) and associated equipment. The exact details on this gas distribution apparatus has not been collected for the IDP to date but would be a useful inclusion.

Gas Transmission and Distribution – Gaps in Existing Provision and Projects / Plans

- 4.17 The National Grid Gas Ten Year Statement (2015) sets out the impact of changing customer requirements, future energy scenarios, legislative changes, asset health on the future operation and development of the National Transmission System. The thematic map for the Eastern Area and North Thames indicates no major gaps in provision with no new or upgraded NTS pipelines currently planned. This information is detailed below in Figure 4.8. No information on works planned for distribution pipelines was available at the time of print.

Figure 4.8: National Transmission System (NTS)

Figure A1.8
Eastern (EA) – NTS

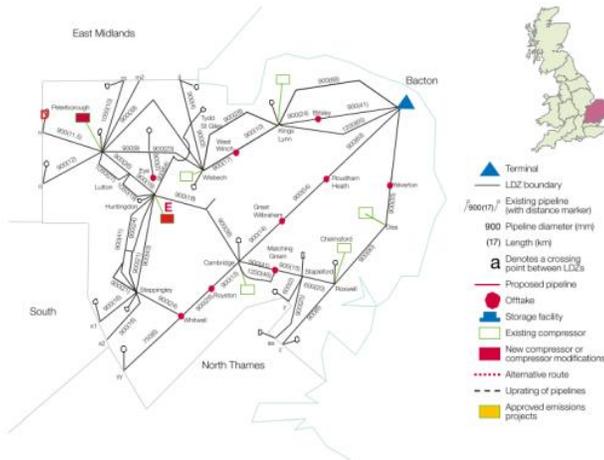
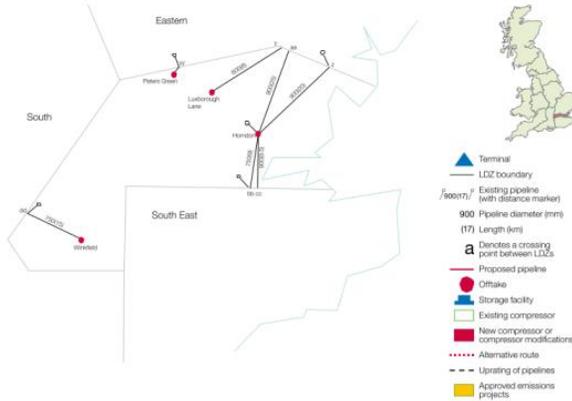


Figure A1.9
North Thames (NT) – NTS



Renewable and Low Energy – Existing Infrastructure

4.18 There is currently one major renewable energy unit within Brentwood Borough at Dunton Hills Farm and consists of a single 500kw wind turbine. Figure 4.8 details the current renewable energy planning permissions within Brentwood Borough.¹³

Figure 4.8: Renewable Energy Permissions

Location	Type of Development	Forecast Energy Generation	Potential Housing Supply (Estimate Only)	Status

¹³ Planning permissions were last reviewed in 2017 and a further review should be undertaken shortly.

Dunton Hills Farm Tilbury Road West Horndon Essex CM13 3LT	Installation of a single 500kw wind turbine.	500kw	300 ¹⁴	Decision notice 11 th Feb 2014. Now built.
Orchard Farm Little Warley Hall Lane West Horndon Little Warley Essex CM13 3EN	Installation and operation of a ground mounted solar PV system with a capacity of up to 250kW	250kw	62 ¹⁵	Decision notice 5 th Aug 2013 Conditions not discharged.
Hawthorn Cottage 2 Old Church Road Mountnessing Essex CM13 1UP	Installation and operation of a solar array with a capacity of up to 4kW on agricultural land at Hawthorn Cottage	4 kw	1	Decision notice 7 th April 2015. Conditions not discharged.

Renewable and Low Energy – Gaps in Provision

4.19 For a small Borough with limited renewable energy projects it is difficult to forecast gaps in current provision. However, when considering renewable energy potential this was analysed for Brentwood in the University of Exeter study based predominately on a capacity study undertaken for the East of England by AECOM in 2011.¹⁶ The methodology of the study is based upon a sequential constraint approach in which constraints are progressively introduced to reduce the naturally available resource to those that are constrained by planning and regulation. The scope from the original assessment included district heating (DH) and combined heat and power (CHP), large scale onshore wind, hydro energy, biomass covering a range of fuels, energy from waste (EfW) and microgeneration technologies including small scale wind, solar, and heat pumps. The output from this assessment has been extracted in the University of Exeter Study for the Brentwood Borough area.

4.20 Some of the key non-sites specific findings from this analysis are noted below:

- There is unlikely to be major heat density areas in the Borough suitable for retrofit only district heating schemes – new development may therefore play an important role in heat network development.

¹⁴ Based upon Renewable UK formulae with a load factor of 0.273 for onshore wind power and average annual household consumption of 3.938 MW.

¹⁵ Based upon estimates that 3800 KW equates to roughly the average household electricity consumption per annum, and the output from a 4kWp solar system in the South of England is roughly 3.8MW - www.energysavingtrust.org.uk.

¹⁶ http://www.sustainabilityeast.org.uk/index.php?option=com_content&view&id=113&Itemid=92 (accessed originally on 18/10/13)

- District heating is a viable and zero carbon energy solution for new development – evidence from the Carbon Trust indicates that district heating can be viable on sites with as few as 200 homes (estimate of over 60% of energy generated could be applied to major developments and CHP schemes).
- In general, it is assumed that most homes that are currently using oil or solid fuel could switch to biomass boilers – there is broadly a match between the technical capacity to deliver biomass from managed local woodlands and domestic demand but commercial and industrial demand this may result in the Borough becoming a net importer of biomass (could account for almost 27% of energy generated).
- Commercial scale wind turbines (2.5 MW) could generate significant energy generation and carbon reduction – 5 commercial turbines could deliver 30% of energy generated.
- Standalone PV developments could generate approximate 7% of energy generated with heat pumps and solar technologies at about 8.5% each.

Low Energy Options – Potential Projects and Plans

- 4.21 Outside of any policy and site requirements set out in the Local Plan, there are no major proposals for renewable or low energy projects and associated infrastructure within the Borough.

IMPLICATIONS OF GROWTH

Electricity

- 4.22 Feedback on behalf of the National Grid has highlighted that the ZB high voltage overhead line cross a small part of Brentwood Enterprise Park (ref 101A) proposed allocation. National Grid prefers that buildings are not built directly beneath its overhead lines. This is for two reasons, the amenity of potential occupiers of properties in the vicinity of lines and because National Grid needs quick and easy access to carry out maintenance of its equipment to ensure that it can be returned to service and be available as part of the national transmission system. Such access can be difficult to obtain without inconveniencing and disturbing occupiers and residents, particularly where properties are in close proximity to overhead lines.
- 4.23 National Grid seeks to encourage high quality and well-planned development in the vicinity of its high voltage overhead lines. Land beneath and adjacent to the overhead line route should be used to make a positive contribution to the development of the site and can for example be used for nature conservation, open space, landscaping areas or used as a parking court. The relocation of existing overhead lines will only be considered by National Grid as part of nationally important projects and appropriate

safety clearances between overhead lines, the ground and built structures must not be infringed.

- 4.24 Feedback from UKPN indicates that the proposed level of housing that most will be accommodated without the need for reinforcement of major substations and individual developments will be connected with local reinforcement and network extensions. This does assume that properties will still be heated by gas fired central heating and not direct acting or storage heaters. The introduction and effect of Electric Vehicles (EV's) has not been considered on the distribution network at the current time. The Dunton Hills proposed settlement is well located near to Langdon and West Horndon Primary substations and therefore no major reinforcement is envisaged¹⁷. Network extensions are likely to be needed from the Langdon Primary substation that is located at the Basildon Grid site.¹⁸
- 4.25 There will also be a need to consider electricity load requirements associated with future electronic domestic and commercial vehicle re-charging, although some of the extra demand may be countered by off-peak programming.

Gas

- 4.25 Feedback on behalf of National Grid has indicated that a high-power gas transmission pipeline runs across a small southern section of Land East of Nags Head Lane (ref 32) allocation; within the extreme eastern boundary of Dunton Hills Garden Village (ref 200) proposed allocation area and within the eastern edge of the proposed Brentwood Enterprise Park allocation (ref 101A). National Grid requests that any High Pressure Major Accident Hazard Pipelines (MAHP) are taken into account when site options are developed in more detail. These pipelines form an essential part of the national gas transmission system and National Grid's approach is always to seek to retain existing transmission pipelines in situ. National Grid may also have a Deed of Easement for each asset which prevents the erection of permanent/ temporary buildings, or structures, changes to existing ground levels, storage of materials etc.
- 4.26 Further information will be required on investment required in lower pressure gas pipelines and associated equipment.

Low Energy Options

- 4.27 There are opportunities to explore the delivery of renewable energy infrastructure, including district heating schemes linked to new strategic developments. Strategic level sites which may be considered suitable for district or localised heating schemes include:

- Dunton Hills Garden Village

¹⁷ Preliminary assessment by consultants on behalf of CEG for Dunton Hills has indicated that electricity supply and reinforcement works may be required - A 1x18MVA 33/11kV primary substation / A 20x100 Kva HV/LV Secondary Substation. (Inc up to 500m of HV cable per substation installed in ducts around the site..)

¹⁸ Feedback provided by UKPN dates from 2017 and is in connection with a slightly different range of sites to the current Local Plan. No additional feedback / information has been obtained from this date.

- Brentwood Enterprise Park
- West Horndon Industrial Estate sites
- Officer's Meadow and linked sites
- Ford and Council Depot

FINANCIAL CONSIDERATIONS

- 4.28 **Electricity** - UKPN has a programme of infrastructure improvements outlined in previous sections, with much of the information commercially sensitive. There is further detailed information required on whether substation reinforcements are necessary as part of the Dunton Hills Garden Village development. It is also understood that there may be an opportunity to either upgrade or underground ageing pylon infrastructure across parts of the Dunton Hills site, but this needs to be formally confirmed, as well as costs and liabilities.
- 4.29 **Gas** – no major financial considerations indicated at this stage although localised pipelines may need to be extended and reinforced linked to development sites.
- 4.30 **Low Energy and Renewables** – detailed information on district heating cost options will be project specific and need to be subject to feasibility analysis and comprehensive project / cost planning. Research undertaken in 2010 on the cost per dwelling of district heating schemes with combined heat and power units suggested a cost of circa £3500 to £8000 per dwelling (depending upon dwelling type).¹⁹ Smaller scale Combined Heat and Power (CHP) Schemes have a potential capital costs of circa £8,000 per house (depending upon scale of project).²⁰ Research has also recently been undertaken by AECOM and the Energy technologies Institute on reducing the capital costs of district heat network infrastructure.²¹
- 4.31 Part B of the IDP includes some pre-feasibility high level cost estimates of capital costs for the per unit 'additionality costs' of district heating / CHP linked to the proposed strategic site allocations, in line with Local Plan policy. These figures should be treated as an outline guide only. The cost estimates for Dunton Hills applies for the whole scheme (3500 units).
- 4.31 **Site Development** – there are site layout costs associated with easements and development restrictions in relation to allocation sites 32, 101A and 200.

¹⁹ AECOM – Hertfordshire Renewable and Low Carbon Energy Technical Study 2010

²⁰ <https://www.homebuilding.co.uk/district-heating/>

²¹ AECOM and Energy Technologies Institute 'Reducing the capital cost of district heat network infrastructure' October 2017

05 WATER AND DRAINAGE



OVERVIEW

- 5.1 This chapter of the IDP provides an overview of water and drainage infrastructure. It is supported by updated SFRA and Water Cycle Information¹. The updated SFRA incorporates new data for strategic level flood risk assessment and provides updates in relation to national policy and guidance together with Environment Agency guidance on climate change allowances. Both the updated SFRA and WCS are used extensively as part of the commentary to this chapter. For further detailed information, please refer to the original documents as part of the Council's evidence base.
- 5.2 At a local level, the Essex Local Flood Risk Management Strategy (LFRMS) was developed in 2013 providing local flood risk management co-ordination for Essex. The South Essex, North Essex and Thames Catchment Management Plans (CFMPs) provide an overview of flood risk across each river catchment and recommend ways of managing those risks now and over the next 100 years. The Thames and Anglian River Basin Management Plans (RBMPs) ensure the protection and improvement of the water quality.
- 5.3 The NPPF covers a full range of planning issues in relation to managing flood risk with further guidance available through the NPPG.²
- 5.4 Essex County Council has responsibility for managing flood risk from local sources (surface water, groundwater and ordinary watercourses) and ensuring that any Sustainable Urban Drainage Systems (SuDS) are of appropriate design standards and have clear arrangements for maintenance over the development's lifespan. Flooding from main rivers, the sea and from reservoirs are the responsibility of the Environment Agency.

¹ SFRA and WCS Updates 2018

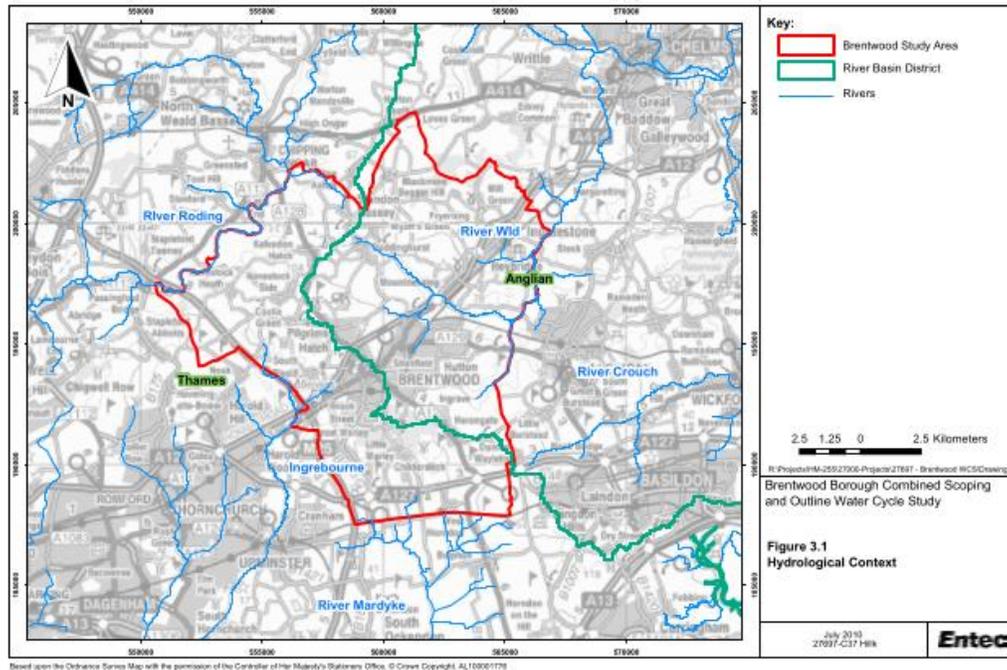
² Para references to add

Topography and Watercourses

- 5.5 The topography of the area ranges from approximately 100m Above Ordnance Datum (AOD) in the north and central regions, to approximately 10mAOD in the south of the Borough. The Brentwood Urban Area and adjoining built up area is located on gently undulating ridge. Therefore, there are no major water courses running through this built-up area. The tributaries of the River Wid flow in the shallow valley between the wider built-up area of Brentwood and large village of Ingatestone. Therefore, there are no significant areas of fluvial flood risk within the existing built-up area.
- 5.6 The Borough forms the headwaters of four key watercourses which drain the area: the River Wid, the River Ingrebourne, the River Roding and the River Mardyke. The River Wid is the main catchment in the Borough and is located on the eastern boundary of the Borough. It flows in a south to north direction. The river eventually joins the River Can in Chelmsford, which itself joins the River Chelmer becoming the River Blackwater before entering the North Sea. The catchment of the River Wid and associated tributaries covers over 50% of the total area of Brentwood.
- 5.7 The River Roding and associated tributaries drain the west of the Borough (approximately 15% of the total Borough area) and form its north western boundary. The river flows in an approximate south westerly direction eventually joining the River Thames via Barking Creek.
- 5.8 The River Ingrebourne system drains the south-western part of the Borough (approximately 15% of the total area of the Borough). The river flows south and joins the Thames at Rainham; and the River Mardyke system which drains the extreme south of the Borough via numerous small tributaries (approximately 15% of the total area of the Borough). The Mardyke flows south then to the west and joins the Thames near Purfleet.
- 5.9 Other watercourses of interest include the Ingatestone Hall Brook in the north-east, the Stondon Hall Brook in the north-west and the Ingrebourne Brook in the west. The main watercourses in the Borough are outlined below in Figure 5.1.³

³ Further information on watercourses is available in the SFRA Update.

Figure 5.1 Water Courses



Historic Flood Risk Events

- 5.10 The extent of historic flooding in the Borough has generally been concentrated upon:
- rapid surface water runoff and ponding in areas such as low-lying roads;
 - Multiple recorded flooding events from the River Roding in the north east of the Borough

Flood Risk Modelling

- 5.11 The extent of modelling flood risk as detailed on the Environment Agency flood map for the Borough is detailed below in Figure 5.2. Overall the Flood Zones are confined close to the watercourses from which they originate and are not extensive for the Brentwood Borough. This flood zone information is generally sufficient to inform spatial planning however for site specific applications further flood risk information may also be required.

Figure 5.2: Flood Risk Zones

To insert

- 5.12 There are also watercourses within the Borough which are not currently modelled and advice from the SFRA consultants is that it would be prudent to use the surface water maps along the watercourses of these unmodelled main rivers and all ordinary watercourses as a proxy for Flood Zone 3 in lieu of more detailed modelling or site-specific assessment.

Tidal, Groundwater and Reservoirs

- 5.13 The Borough is not at risk from coastal flooding and there are no reported incidences of reported of groundwater flooding.

Surface Water Flooding

- 5.14 Surface water flooding is the term used for flooding that occurs when intense rainfall overwhelms the ability of the land to infiltrate water, sewers and road drains. Figure 5.3 below highlights updated surface water flood risk data which indicates the settlements of Brentwood, Blackmore, Doddinghurst and Ingatestone in particular may all contain areas which are potentially vulnerable to surface water flooding. Key road infrastructure such as the A12 is also shown to be vulnerable in places with a history of flooding in parts.

Figure 5.3: Surface Water Flooding

To Insert

Climate Change

- 5.15 Managing climate change and associated heightened flood risks are a key element of the NPPF. Figures 5.4 and 5.5 below provide an indicative assessment of how climate change may impact on Flood Zone 3 and ordinary / unmodelled watercourses across the Borough.

Figure 5.4 Climate Change and Flood Zone 3

To Insert

Figure 5.5 Climate Change and Ordinary / Unmodelled Watercourses

To Insert

- 5.16 Figure 5.6 below summarises the key messages from the updated flood risk assessment for Brentwood.

Figure 5.6: Summary of Flood Risk

Type/Source of Flooding	Risk?	Description
Fluvial Flooding	Yes	Some flooding along eastern boundary of Borough from the River Wid and from Stondon Hall Brook and the River Roding in the north west of the Borough.
Surface Water Flooding	Yes	Affects numerous areas across the Borough. Mostly consists of land drainage issues causing flooding to public highway most notably on the A12 north west of Brentwood and on roads around Ingatestone.
Groundwater Flooding	No	No historic records of this type of flooding within the Borough. Available data suggests this is not thought to be a source of flooding.
Tidal Flooding	No	Elevations put Borough outside of any tidal flood risk zone.
Artificial	No	Not at risk from reservoir sources, limited data on sewer flooding but appears to be due to surface water risk.

Quality of Watercourses

- 5.17 It is noted that water quality of rivers, lakes and groundwater is a good indicator of their general health in terms of their ecology, biodiversity and amenity. The chemical status and status of the physico-chemical elements of ecological status are both helpful in understanding the overall water quality.⁴
- 5.18 The Water Cycle Study (WCS) update which accompanies the Local Plan undertook an investigation into water quality in line with the Water Framework Directive objectives (WFD). The WFD is a key directive that seeks to protect and improve the water environment and its ecology. Its overarching aim is to prevent deterioration in the status of water bodies and to achieve 'Good Status' for rivers, lakes, coastal waters and groundwater by no later than 2027. Impacts on water resources were also reviewed in the WCS in line with the water companies Water Resource Management Plans.
- 5.19 The Anglian and Thames River Basin Management Plans (RBMPs) cover the Borough. To the East is the Combined Essex catchment of the Anglian RBMP, encompassing the rivers and tributaries of the Stour, Colne, Pant/Blackwater, Chelmer, Crouch and

⁴ Information taken from p.35 of the Brentwood Scoping and Outline Water Cycle Study – Final report January 2011 – further technical information is available in this report on chemical and ecological status elements.

Roach, along with the smaller catchments of Sixpenny, Tenpenny, Holland and Asheldham Brook and. To the South and West the area is covered by two catchments of the Thames RBMP; the Roding, Bream and Ingrebourne and South West Essex catchments, predominantly covering the Mar Dyke. Physical modifications due to urbanisation, agricultural runoff, urban runoff, abstraction for water supply and barriers to fish movement play a key role in determining the status of rivers and lakes in these catchments.

- 5.20 Recently completed and current improvement projects linked to the main water bodies associated with the Brentwood area (none of the projects are within the Borough) include:
- River Wid – willow bank protection and other measures at Buttsbury (completed);
 - River Ingrebourne – project to tackle polluted water from an outlet;
 - River Mardyke – improvements to the flood plain grassland and in-channel habitats within the floodplain.

5.21 The five Waste Water Treatment Works affected by future growth are located within five water bodies and within three operational catchments. The Environment Agency has indicated that all five of the waterbodies are classified as less than good in terms of ecological status. The key elements found to be less than good include: fish, invertebrates, macrophytes and phytobenthos combined, BOD, phosphate and ammonia. Further baseline data is detailed below in Figure 5.7.

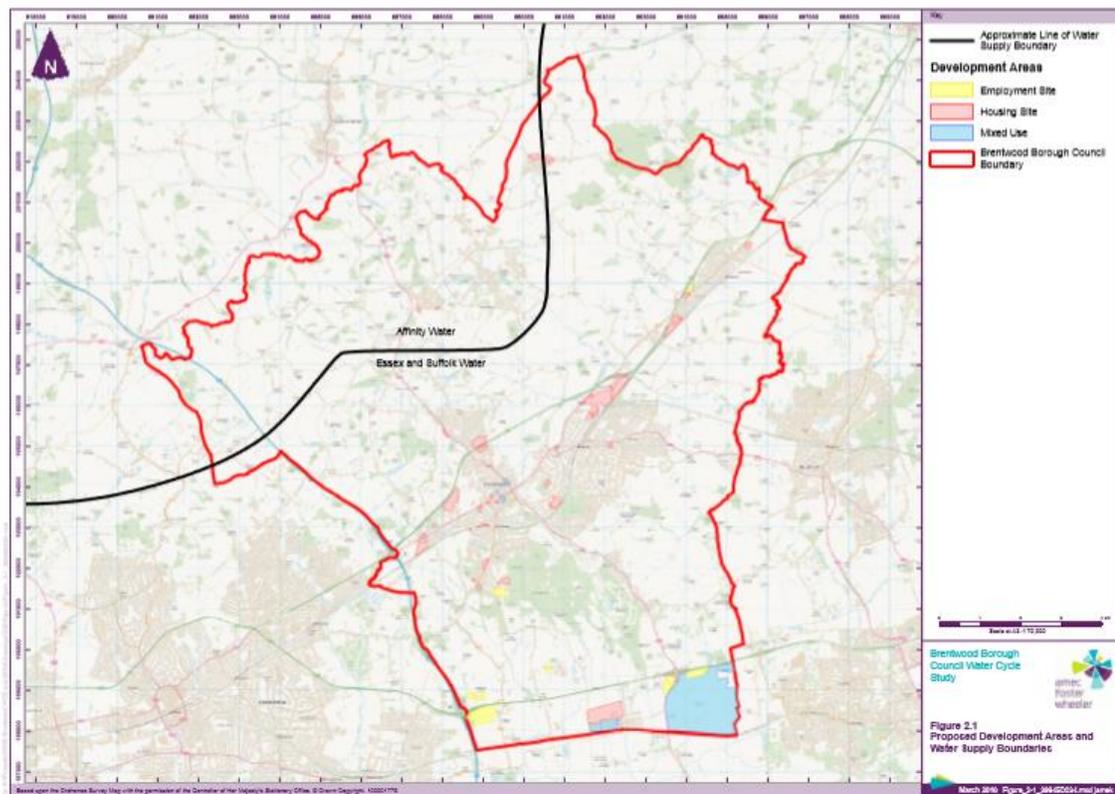
Figure 5.7: Ecology Status of Operational Catchment Area

WwTW	Water Body ID and Water Body Name	Operational Catchment	Overall Status 2016 Cycle 2
Doddinghurst	GB105037028720 - Doddinghurst Brook	Chelmer	Poor
Shenfield	GB105037028680 - Wid (Doddinghurst Brook - Shenfield STW)	Chelmer	Poor
Ingatestone	GB105037028690 - Wid (Ingatestone Hall - Margareting Hall)	Chelmer	Moderate
Upminster	GB106037028080 - Mardyke (West Tributary)	Mardyke	Moderate
Brentwood	GB106037028130 - Ingrebourne	Roding Beam and Ingrebourne	Moderate

Potable Water Supply

- 5.22 Essex as a whole is identified as an area of Serious Water Stress (Identifying Areas of Water Stress, Environment Agency 2007). Brentwood Borough is served two Water Supply Undertakers (Water Companies), Essex and Suffolk Water (ESW) accounting for three quarters of Brentwood Borough and the remainder in the northern rural area surrounding Doddinghurst and Kelvedon Hatch is served by Affinity Water (previously Veolia Water Central). Figure 5.6 provides an outline of water supply areas for the two companies.

Figure 5.6: Water Supply



- 5.23 ESW and Affinity Water apply a twin tracked approach to maintaining water supplies through a combination of demand management and water supply schemes and initiatives.
- 5.24 The water resources within the ESW area includes the Rivers Chelmer, Blackwater, Stour and Roman River which support pumped storage reservoirs at Hanningfield and Abberton and treatment works at Langford, Langham, Hanningfield and Layer. The remaining water sourced from inside the Essex resource zone (approximately 3% of total water supplied in the zone) is derived from groundwater via Chalk Well and

additional sources in the south and south west of the zone at Linford, Stifford, Dagenham and Roding, each with on-site treatment.

- 5.25 Water transferred into the Essex supply area from outside the area come from two main sources, the Chigwell raw water supply from Thames Water Utilities and the Ely Ouse to Essex Transfer Scheme (EOETS). In a dry year, up to a third of the water supplied in Essex is derived from the Ely Ouse to Essex Transfer Scheme, which transfers water from Denver in Norfolk via pipelines and pumping stations to the headwaters of the River Stour and River Pant / Blackwater. The EOETS is owned and operated by the Environment Agency (EA).
- 5.26 Another significant water resource in Essex has been the granting of a permanent discharge consent for the Langford Recycling scheme. It has the capacity to increase the water availability for Essex by 8%. This scheme involves the indirect recycling of effluent from the Chelmsford sewage treatment works for re-use as a potable resource. The Langford recycling plant has the capacity for tertiary treatment of up to 40M/d of effluent.
- 5.27 ESW published its Final Water Resources Management Plan (fWRMP) in October 2014 in which it confirmed that the Company forecasts a surplus of supply to demand in all Water Resource Zones (Essex and Suffolk) over the 25-year planning horizon. Essex & Suffolk Water has invested £150million to complete The Abberton Scheme, which has secured supplies of water to one and a half million people in Essex for many years into the future. The scheme, which includes the enlargement and enhancement of Abberton Reservoir, not only provides a vital new water resource but has also transformed the site into a natural wetland.
- 5.28 The Affinity Water Final Water Resources Management Plan (June 2014) also expresses confidence in supplying and managing water resources over a 25-year time horizon, but the 2014 Plan is substantially different from previous plans as there is no longer have a surplus of resources and it means that the company will have to replace lost resources by managing the demand for water or developing new resources and bringing in new supplies.

Wastewater Treatment and Sewerage

- 5.29 The Borough of Brentwood is served by two wastewater treatment and sewerage companies – Anglian Water (AW) and Thames Water (TW) with the boundary of these areas dissecting Brentwood's Urban Area. Sewerage refers to the infrastructure that conveys sewage i.e. sewers, pumping stations to wastewater treatment works. Anglian Water deals with just over half of the Borough's area to north and east including Shenfield and Hutton and Thames Water to the south and west including Warley.
- 5.30 Anglian Water is responsible for water and water recycling services to more than six million customers in the east of England. The business looks after over 38,000 KM of

water mains, 76,000KM of sewers, 140 water treatment works and 1,123 water recycling centres. Its main corporate plan covers the period 2015-2020⁵, and highlights a number of key priorities:

- Fair profits – a financially responsible, efficient business earning fair profits;
- Investing for tomorrow – Provide the service customers expect over the long-term through responsible stewardship;
- Caring for communities – working responsibly with communities;
- A smaller footprint – leading by example on reducing emissions and conserving the world’s natural resources;
- Flourishing environment – a flourishing environment for nature and everyone;
- Satisfied customers – ensuring customer satisfaction;
- Fair charges – bills balance fairness, affordability and value for money;
- Safe clean water – drinking water is safe, clean and acceptable;
- Resilient services – services can cope with disruptive events, and
- Supply meets demand – manage and meet the growth in demand for sustainable and reliable water and water recycling services.

5.31 The Anglian Water Annual Integrated Report 2016 ⁶, provides more specific information on infrastructure planning including a focus upon:

- Improving the resilience of the Ruthamford (Rutland – Grafham – Pitsford) supply system in the west of their operational region to improve resilience against drought;
- Investing in groundwater assets to maintain output and performance, and
- Prioritising Water Recycling Centres for investment, taking a phased approach based upon expected population growth.

5.32 Anglian Water has a statutory responsibility to provide water and water recycling services to new homes and businesses. The company has witnessed an increase in the number of developers requesting planning advice using a voluntary pre-planning capacity service, which can assist with promoting better quality planning applications and setting out how developments can connect to the Anglian Water network without increasing the risk of sewer flooding, pollution and low water pressure. Where necessary, Anglian Water can request appropriate planning conditions for surface and foul water drainage to ensure connections do not result in increased flooding or pollution. Anglian water also own a considerable amount of land – much of which is of value to wildlife and can play a positive role in Green Infrastructure planning.

5.33 The Anglian Water, Water Resources Management Plan (WRMP) 2015 reports on long term planning relating to the development of water resources over a period of 25 years and identifies investment in water resources schemes to meet additional

⁵ Anglian Water – Our Plan for 2015-2020

⁶ Anglian Water Services Limited – Engaging with Customers – Annual Integrated Report 2016

demand related to population growth and changes in per capita consumption of water. The plan for maintaining the supply-demand balance combines an extension of the Ardleigh trading agreement (continuation of the current 70/30 agreement with Affinity Water to trade the resources of the Ardleigh Reservoir) with additional leakage control and water efficiency savings.

- 5.34 Thames Water is the UK's largest water and wastewater services provider with 15 million customers. In terms of sewerage infrastructure, the company has 350 sewage works, treating more than 4.4bn litres per day of wastewater; 67,000 miles of sewer, 2530 pumping stations and 1.2 million manholes. Thames Water also runs two sludge-powered generators and 19 combined heat and power plants generating.
- 5.35 The Thames Water five-year plan 2015-20 provides a number of key priorities, including:
- Providing a better customer service;
 - Helping customers pay bills;
 - Improving the sewage system so that no one should suffer the threat of sewage flooding their home;
 - Introducing major flood relief work in West London;
 - Ensuring that sewage works and pumping stations cope with the demands of a growing population.
 - Generating 33% of own power needs from renewable sources, and
 - The development of the Tideway Tunnel to upgrade London's sewage infrastructure and improve the water quality of the River Thames.
- 5.36 The Thames Water long-term strategy 2015-2040 includes a focus upon wastewater collection, key elements of the strategy in addition to the Thames Tideway Tunnel include:
- Reducing the input of rainfall to sewers - in some areas, sewers operate as a combined system, with rainwater and foul sewage carried in the same network. High volumes of rainfall can therefore fill the system to capacity, causing untreated sewage to overflow, potentially leading to flooded properties and polluted watercourses.
 - Tackling problems caused by heavy rainfall, pumping station failures and structural problems caused by tree roots.
 - Minimising the improper disposal of unsuitable non-flushable items.
 - Working with local authorities and the Environment Agency on promoting and installing Sustainable Drainage Systems.
 - Installation of real time-controlled monitoring systems.

- Targeted maintenance programmes to reduce costs on the long term.
- Up to the year 2020 address remedial action at nine pollution hotspots identified by the Environment Agency and also target 200 polluted surface water outfalls, again identified by the Environment Agency, where sewage enters a watercourse through pipework that is meant only to carry surface water.
- Large parts of the sewerage network can be affected by high groundwater levels and infiltration following prolonged rainfall - 15 locations have been identified covering 65 sub-catchments where three is an intention to make improvements by 2020
- Continue to work with the Environment Agency to identify situations where foul drainage has been wrongly connected to pipes intended to take only surface water run-off. These misconnections cause pollution of rivers, lakes and streams.

INFRASTRUCTURE AND PROJECTS

Flood Risk Mitigation

5.37 A number of surface water flood risk alleviation projects were identified in the ECC Surface Water Management Plan (SWMP)⁷. Some of these projects have been included on a rolling programme of major schemes and are detailed below in Figure 5.7.

Figure 5.7: Surface Water Flood Risk Projects

Project	Prioritisation	Cost Profile (Estimates)	Status
SUDS and Water Management - HORN-B and HORN-C- Horndon Industrial Park	1	£1,581,814	2017/18 delivery
Area BRENT-B - Pilgrims Hatch	2	£108,000	Pipeline Project
Area BRENT-D - Area surrounding Brentwood Station	3	To be confirmed	2018/19 delivery
Area BRENT-F - Thrift Green, Brentwood	4	£91,000	Pipeline Project
Area INGATE-C - Heybridge, Ingatestone	5	£270,000	Pipeline Project
Area BRENT-C - Brook Street, Brentwood	6	£126,000	Pipeline Project
Area INGATE-A - Ingatestone High Street	7	£209,000	Pipeline Project

⁷ This information was last reviewed in 2017 and will require an update on project progress.

Area BRENT-A - Shenfield / Hutton	8	To be confirmed	Pipeline Project
Area BRENT-H - Hutton	8	To be confirmed	Pipeline Project

Watercourse Enhancement⁸

5.38 According to the Anglian River Basin District Management Plan (2015), the priority river basin management issues to tackle in the Combined Essex catchment are physical modifications, point source and diffuse pollution leading to elevated phosphate levels and changes to the natural flow and levels of water. Future aims for the Combined Essex catchment (River Wid) partnership area include:

Measures with £100,000 per year

- Securing existing staff time to manage the partnership and support initiatives underway and develop additional phases of completed projects;
- Engaging with landowners and support restoration projects on riparian local wildlife sites, and
- Create a network of rural sustainable urban drainage systems.

Ideas for additional measures with £1,000,000 per year (as above plus the following):

- Identify 2-3 major riparian habitat management projects to address ecological status, improve flood alleviation capacity and contribute to Biodiversity 2020 targets, and
- Development of a catchment wide project to deal with invasive non-native species.

5.39 At a more specific project-based level there are a number of projects identified as having potential to improve the River Mardyke, which include improving drainage and sewerage infrastructure; habitat and fenland creation; removal of invasive species; and public access improvements.⁹

5.40 Thames21 is the partnership group host for the Roding, Beam and Ingrebourne catchments as detailed in the Thames River Basin Management Plan (December 2015).¹⁰ The priority issues in the catchment are pollution and poor water quality from urban and agricultural run-off and physical modifications for urbanisation and flood protection. Contributions to environmental outcomes by 2021 include reducing

⁸ Information on Watercourse Priorities and Projects may need to be reviewed and updated where necessary.

⁹ Information obtained from: <http://www.essexrivershub.org.uk/index.php/project-lists/river-mardyke-projects>.

¹⁰ Environment Agency / Department for Environment, Food and Rural Affairs – Part 1: Thames river basin district – River basin management plan Updated: December 2015.

phosphates, ammonia, heavy metals and silt from urban run-off entering the Ingrebourne Marshes SSSI. Future aims include:

Additional Measures with £100,000 per year

- Connecting Communities; encouraging communities to take ownership of water quality in their area. Practical conservation days, training events, misconnection awareness and littering prevention campaigns, water quality monitoring and an Ingrebourne Valley mobile app.
- Development and implementation of a water body wide invasive species identification, monitoring and eradication programme. Surveying for invasive non-native species (INNS) such as mink, Himalayan balsam, floating pennywort and Japanese knotweed.
- Promote and encourage the use of sustainable drainage systems (SuDS) in new developments and retrofitting to existing sites within the catchment to reduce the impacts of urban diffuse pollution and phosphate run-off from fertilisers and herbicides

Ideas for additional measures with £1,000,000 per year (as above plus):

- Implementation of the Havering Wildlife Project Ingrebourne Restoration Plan. Flood management using natural processes, climate change adaptation, reconnecting people to the environment, improved recreation access and enhanced habitats. This project will improve the status of fish, macrophytes and invertebrates and improve amenity and recreational value.
- Modelling and design proposals for the Harrow Lodge Park Restoration Plan on the Ravensbourne. Ultimately, this will improve the status of fish, invertebrate and macrophyte populations and amenity and recreational value.
- Development and implementation of a water body wide culvert awareness and removal programme. Promoting alternatives to culverting, influencing planning policy and encouraging sustainable development without culverts. This will resolve failures in fish and invertebrates, increase recreational opportunities and contribute to biodiversity.

5.41 The Essex Rivers Hub is a partnership initiative led by Essex Wildlife Trust, Essex Biodiversity Project and the Environment Agency. A number of potential projects have been identified earlier in this report and are publically accessible via the Hub's website, but are subject to securing appropriate levels of funding. A range of local partnership

priorities / projects have also been identified by the catchment partnership for the Roding, Beam and Ingrebourne as detailed in the Thames River Basin Management Plan, and earlier in this report. These projects will be subject to securing appropriate levels of funding. **Epping Forest Pilot**

Potable Water

5.42 There are no planned major infrastructure upgrades scheduled for potable water supply infrastructure within the Brentwood Borough.

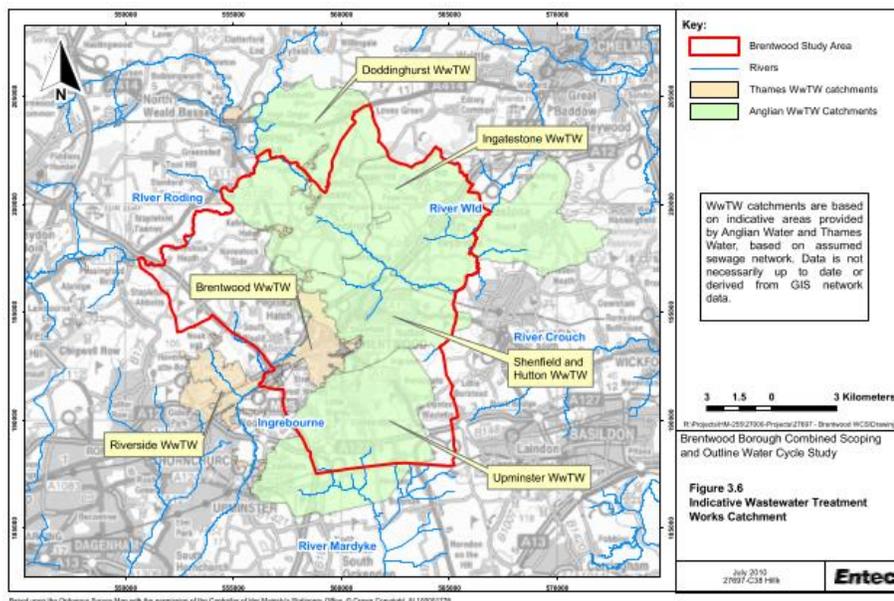
Wastewater Treatment Works

5.43 There are six Wastewater Treatment Works (WwTW) serving Brentwood Borough:

- Doddinghurst WwTW (Anglian Water)
- Ingatestone WwTW (Anglian Water)
- Shenfield and Hutton WwTW (Anglian Water)
- Brentwood WwTW (Thames Water)
- Upminster WwTW (Anglian Water)
- Riverside WwTW (serves a small area near Brook Street Interchange) (Thames Water).

A plan setting out the indicative WwTW catchment areas is detailed in Figure 5.7 below.¹¹

Figure 5.7: Wastewater Treatment Works Catchments



¹¹ Image reproduced from Brentwood Scoping and Outline Water Cycle Study – Final Report January 2011

5.44 The updated WCS has usefully provided a summary of Local Plan draft housing development sites (at the time of analysis) linked to WwTWs and is reproduced below in Figure 5.8¹².

Figure 5.8: Clustering of sites by WwTW

WwTW	Housing Allocation Site	Option 2 Dwellings (Net)	Option 6 Dwellings (Net)
Doddinghurst WwTW	Land South of Redrose Lane	40	40
	Chestnut Field, Blackmore Road	10	10
	Land adj Tipps Cross Community Hall, Blackmore Road	10	10
	Land South of Redrose Lane	56	56
	Swedish Field, Stock Lane	30	30
	Brizes Corner Field, Blackmore Road, Kelvedon Hatch	23	23
Shenfield & Hutton WwTW	Eagle and Child Pub, Shenfield	20	20
	Land at Crescent Drive, Shenfield	55	55

WwTW	Housing Allocation Site	Option 2 Dwellings (Net)	Option 6 Dwellings (Net)
	Wates Way Industrial Estate*	40	40
	Essex County Fire Brigade HQ	132	132
	Sow and Grow, Ongar Road, Pilgrims Hatch*	19	19
	Land at Priests Lane	95	95
	Land off Doddinghurst Road*	100	100
	Land east of Chelmsford Rd, Shenfield	215	215
	Land north of A1023 Chelmsford Road, Shenfield	100	100
	Officer's Meadow	510	510
	Land at Bisleigh Grange, Shenfield	22	0
	Land south east of Hall Wood, Shenfield	23	0
	Land rear of St Thomas of Canterbury School	109	0
	Land west of Hall Ln	116	0
	Land to the west of Hall Wood	128	0
	Land north west of Shenfield	489	0
	Land east of Hall Ln	354	0
	Sawyers Hall Fm	450	0
Land between A12 and Hall Ln	995	0	
Ingatstone WwTW	Ingatstone Garden Centre	120	120
	Land adjacent to Ingatstone By-pass	57	57
	Former A12 Work Site	41	41
Upminster WwTW	Council Depot, Warley	123	123
	Ford Headquarters, Warley	350	350
	West Horndon Industrial Estate	580**	580**
	Dunton Hills Garden Village (plan period)	0	4000
Brentwood WwTW	Land at Hunter House, Western Road	48	48
	Chatham Way / Crown Street Car Park	31	31
	Westbury Road Car Park	45	45
	Wates Way Industrial Estate*	40	40
	Brentwood railway station car park	100	100
	William Hunter Way	300	300
	Sow and Grow, Ongar Road, Pilgrims Hatch*	19	19
	Land adj to Carmel, Mascalls Ln	9	9
	Land west of Warley Hill	40	40
	Land East of Nags Head Lane, Brentwood	125	125
	Land at Honeypot Lane	200	200
Land off Doddinghurst Road*	100	100	

¹² Please note that there is a slight variation in the sites and numbers assessed to final allocation sites in the Local Plan.

IMPLICATIONS OF GROWTH

Flooding

5.45 The main implications of the Local Plan allocation sites in relation to flooding are summarised within Figure 5.9 below. It can be noted from the table, that key conclusions include:

- site specific flood risk assessment and site layout and design around flood risk for both Officer's Meadow and Dunton Hills Garden Village.
- site specific flood risk assessments for approximately an additional 33 sites;
- drainage impact assessments for the remaining 12 proposed allocations.

There will also be a need to refer to the site-specific recommendations with the Essex SWMP

5.46 At a more general level, the SFRA update includes a series of recommendations which are summarised below and are likely to have cost implications as part of the development process for various sites:

- sites around non-modelled main river and ordinary watercourses should use the surface water flood risk maps as a proxy for fluvial flood risks, with hydraulic assessments required of the likely flood risks from currently non-modelled main river and ordinary watercourses;
- design in fluvial floodplains on sites, and
- all new development should attempt to reduce surface water run-off by sustainably managing run-off on site.

5.47 The Strategic Flood Risk Assessment identifies one location in the Brentwood Borough where there is a risk of flooding caused by sewer blockage/capacity issue. The assessment refers to a possible flood event at Ingatestone High Street, at a low point, due to sewer flooding at Whadden Chase. The potential flooding would occur for a 1 in 100 year annual probability event. This area drains into the Ingatestone WwTW and as such represents a potential constraint to housing growth with regard to sewerage network capacity.

Figure 5.9: Summary of Flooding Issues – Local Plan Sites

Site	Site Name	Proposed Use	Total Site Area (ha)	Fluvial Flood Zone						Surface water risk			In Critical Drainage Area?	Development Viability	
				Flood Zone 1		Flood Zone 2		Flood Zone 3		High Risk	Medium Risk	Low Risk			
				Area	% of site	Area	% of site	Area	% of site						
112A	Childerditch Industrial Estate	Employment Site	11.25	100.00	100.00	0.00	0.00	0.00	0.00	0.00	Yes	Yes	Yes	No	site specific FRA required
102	William Hunter Way car park, Brentwood	Mixed Use	1.2	100.00	100.00	0.00	0.00	0.00	0.00	0.00	No	Yes	Yes	No	site specific FRA required
087	Land at Alexander Lane, Shenfield	Housing Site	1.73	100.00	100.00	0.00	0.00	0.00	0.00	0.00	No	No	Yes	Yes	site specific FRA required - within CDA so should refer to the site specific recommendations in the SWMP
003	Wates Way Industrial Estate, Ongar Road, Brentwood	Mixed Use	0.99	100.00	100.00	0.00	0.00	0.00	0.00	0.00	Yes	Yes	Yes	No	permitted subject to LPA/LLFA consultation, requires Drainage Impact Assessment
21	Horndon Industrial Estate, Station Road, West Horndon	Mixed Use	10	100.00	100.00	0.00	0.00	0.00	0.00	0.00	Yes	Yes	Yes	Yes	site specific FRA required - within CDA so should refer to the site specific recommendations in the SWMP
39	Westbury Road Car Park, Westbury Road, Brentwood	Housing Site	0.27	100.00	100.00	0.00	0.00	0.00	0.00	0.00	No	No	No	No	permitted subject to LPA/LLFA consultation, requires Drainage Impact Assessment
40	Chatham Way/Crown Street Car Park, Brentwood	Housing Site	0.33	100.00	100.00	0.00	0.00	0.00	0.00	0.00	No	No	No	No	permitted subject to LPA/LLFA consultation, requires Drainage Impact Assessment
41	Land at Hunter House, Western Road, Brentwood	Housing Site	0.21	100.00	100.00	0.00	0.00	0.00	0.00	0.00	No	No	No	No	permitted subject to LPA/LLFA consultation, requires Drainage Impact Assessment
81	Council Depot, The Drive, Warley	Housing Site	3.2	100.00	100.00	0.00	0.00	0.00	0.00	0.00	Yes	Yes	Yes	No	site specific FRA required
83	Land west of Warley Hill, Pastoral Way, Warley	Housing Site	2.21	100.00	100.00	0.00	0.00	0.00	0.00	0.00	No	No	Yes	No	site specific FRA required
085B	Land adjacent to Tipps Cross Community Hall, Blackmore Road, Tipps Cross	Housing Site	0.33	100.00	100.00	0.00	0.00	0.00	0.00	0.00	No	No	No	No	permitted subject to LPA/LLFA consultation, requires Drainage Impact Assessment
2	Brentwood railway station car park	Housing Site	1.07	100.00	100.00	0.00	0.00	0.00	0.00	0.00	Yes	Yes	Yes	Yes	site specific FRA required - within CDA so should refer to the site specific recommendations in the SWMP
10	Sow & Grow Nursery, Ongar Road, Pilgrims Hatch	Housing Site	1.2	100.00	100.00	0.00	0.00	0.00	0.00	0.00	Yes	Yes	Yes	No	site specific FRA required
079A	Land adjacent to Ingatestone by-pass (part bounded by Roman Road, south of flyover)	Housing Site	1.39	100.00	100.00	0.00	0.00	0.00	0.00	0.00	No	Yes	Yes	Yes	site specific FRA required - within CDA so should refer to the site specific recommendations in the SWMP
77	Land south of Bedrose Lane, north of Woollard Way, Blackmore	Housing Site	3.3	100.00	100.00	0.00	0.00	0.00	0.00	0.00	No	No	Yes	No	site specific FRA required
76	Land south of Bedrose Lane, north of Orchard Piece, Blackmore	Housing Site	1.69	100.00	100.00	0.00	0.00	0.00	0.00	0.00	Yes	Yes	Yes	No	site specific FRA required
20	West Horndon Industrial Estate, Childerditch Lane, West Horndon	Mixed Use	6.45	100.00	100.00	0.00	0.00	0.00	0.00	0.00	Yes	Yes	Yes	Yes	site specific FRA required - within CDA so should refer to the site specific recommendations in the SWMP
22	Land at Honeypot Lane, Brentwood	Housing Site	10.93	100.00	100.00	0.00	0.00	0.00	0.00	0.00	Yes	Yes	Yes	No	site specific FRA required
023A	Land off Dodinghurst Road, either side of A12, Brentwood	Housing Site	5.99	100.00	100.00	0.00	0.00	0.00	0.00	0.00	Yes	Yes	Yes	No	site specific FRA required
32	Land east of Nags Head Lane, Brentwood	Housing Site	5.88	100.00	100.00	0.00	0.00	0.00	0.00	0.00	No	Yes	Yes	No	site specific FRA required
34	Officer's Meadow, land off Alexander Lane, Shenfield	Housing Site	20.8	20.34	97.79	0.39	1.88	0.07	0.34	0.34	Yes	Yes	Yes	Yes	consider site layout and design around flood risk - within CDA so should refer to the site specific recommendations in the SWMP
44	Land at Priests Lane (west), Brentwood	Housing Site	4.51	100.00	100.00	0.00	0.00	0.00	0.00	0.00	No	Yes	Yes	Yes	site specific FRA required - within CDA so should refer to the site specific recommendations in the SWMP
27	Land adjacent to Carmel, Mascalls Lane, Warley	Housing Site	0.34	100.00	100.00	0.00	0.00	0.00	0.00	0.00	No	No	No	No	permitted subject to LPA/LLFA consultation, requires Drainage Impact Assessment
079C	Land adjacent to Ingatestone by-pass (part bounded by Roman Road)	Employment Site	2.06	100.00	100.00	0.00	0.00	0.00	0.00	0.00	No	Yes	Yes	Yes	site specific FRA required - within CDA so should refer to the site specific recommendations in the SWMP
128	Ingatestone Garden Centre, Roman Road, Ingatestone	Housing Site	3.45	100.00	100.00	0.00	0.00	0.00	0.00	0.00	No	Yes	Yes	No	site specific FRA required
152	Land East of Horndon Industrial Estate	Mixed Use	0.8	100.00	100.00	0.00	0.00	0.00	0.00	0.00	No	Yes	Yes	No	permitted subject to LPA/LLFA consultation, requires Drainage Impact Assessment
158	Land North of A1023 Chelmsford Road, Shenfield	Mixed Use	4.45	100.00	100.00	0.00	0.00	0.00	0.00	0.00	No	Yes	Yes	Yes	site specific FRA required - within CDA so should refer to the site specific recommendations in the SWMP
178	Land at Priests Lane (east) adjacent Bishops Walk, Brentwood	Housing Site	0.61	100.00	100.00	0.00	0.00	0.00	0.00	0.00	No	No	Yes	Yes	permitted subject to LPA/LLFA consultation, requires Drainage Impact Assessment
186	Land at Crescent Drive, Brentwood	Housing Site	1.54	100.00	100.00	0.00	0.00	0.00	0.00	0.00	No	Yes	Yes	Yes	site specific FRA required - within CDA so should refer to the site specific recommendations in the SWMP
187	Land south of East Horndon Hall	Employment Site	8.7	100.00	100.00	0.00	0.00	0.00	0.00	0.00	Yes	Yes	Yes	No	site specific FRA required
112D	Childerditch Industrial Estate	Employment Site	2.34	100.00	100.00	0.00	0.00	0.00	0.00	0.00	Yes	Yes	Yes	No	site specific FRA required

194	Brizes Corner Field, Blackmore Road, Kelvedon Hatch	Housing Site	0.87	100.00	100.00	0.00	0.00	0.00	0.00	No	No	Yes	No	permitted subject to LPA/LLFA consultation, requires Drainage Impact Assessment
106	Site adjacent to Ingestone Garden Centre (former A12 works site)	Housing Site	4.65	100.00	100.00	0.00	0.00	0.00	0.00	No	Yes	Yes	No	site specific FRA required
235	Land to the north of Alexander Lane, Shenfield	Housing Site	1.36	100.00	100.00	0.00	0.00	0.00	0.00	No	Yes	Yes	Yes	site specific FRA required - within CDA so should refer to the site specific recommendations in the SWMP
263	Land east of Chelmsford Road, Shenfield	Housing Site	9.85	100.00	100.00	0.00	0.00	0.00	0.00	No	Yes	Yes	Yes	site specific FRA required - within CDA so should refer to the site specific recommendations in the SWMP
276	Oak Hurst, Chelmsford Road, Shenfield	Housing Site	0.55	100.00	100.00	0.00	0.00	0.00	0.00	No	No	No	No	permitted subject to LPA/LLFA consultation, requires Drainage Impact Assessment
294	Chestnut Field, Backmore Road, Hook End	Housing Site	0.33	100.00	100.00	0.00	0.00	0.00	0.00	No	No	No	No	permitted subject to LPA/LLFA consultation, requires Drainage Impact Assessment
311	The Eagle and Child Public House, Chelmsford Road, Shenfield	Housing Site	0.24	100.00	100.00	0.00	0.00	0.00	0.00	No	Yes	Yes	Yes	permitted subject to LPA/LLFA consultation, requires Drainage Impact Assessment
117B	Ford Warley - Northern Site	Housing Site	1.28	100.00	100.00	0.00	0.00	0.00	0.00	No	No	Yes	No	site specific FRA required
117A	Ford Warley - Southern Site	Housing Site	6.81	100.00	100.00	0.00	0.00	0.00	0.00	Yes	Yes	Yes	No	site specific FRA required
075B	Land off Stocks Lane, Kelvedon Hatch	Housing Site	2.15	100.00	100.00	0.00	0.00	0.00	0.00	No	No	Yes	No	site specific FRA required
112E	Childerditch Industrial Estate	Employment site	7.05	100.00	100.00	0.00	0.00	0.00	0.00	Yes	Yes	Yes	No	site specific FRA required
101A	Brentwood Enterprise Park (M25 Works Site at A127/M25 junction 29)	Employment site	35.47	100.00	100.00	0.00	0.00	0.00	0.00	Yes	Yes	Yes	No	site specific FRA required
023B	Land off Doddinghurst Road, either side of A12, Brentwood	Housing Site	2.2	100.00	100.00	0.00	0.00	0.00	0.00	Yes	Yes	Yes	No	site specific FRA required
101C	Codham Hall Farm	Employment	9.62	100.00	100.00	0.00	0.00	0.00	0.00	Yes	Yes	Yes	No	site specific FRA required
101D	Codham Hall Farm	Landscaping Area	8.01	100.00	100.00	0.00	0.00	0.00	0.00	Yes	Yes	Yes	No	site specific FRA required
200	Dunton Hills Garden Village	Mixed Use	257	231.28	89.99	2.35	0.91	23.37	0.00	Yes	Yes	Yes	No	site specific FRA required, consider site layout and design around flood risk

Wastewater Treatment and Water Quality¹³

- 5.48 The assessment of DWFs undertaken in the WCS update indicate that Doddinghurst WwTW, Shenfield & Hutton WwTW and Upminster WwTW are not predicted to discharge a volume of effluent greater than the consented limit for any epoch, under any tested scenario.
- 5.49 The assessment also indicates that Brentwood WwTW is already discharging a volume of effluent greater than its consented limit. Additionally, the review indicated that Ingatestone WwTW has less than 10% capacity left. By 2020 it is predicted that both Ingatestone and Brentwood WwTWs will be discharging at a greater volume than the current consent limit.
- 5.50 The assessments of impacts on water quality and the WwTW show future housing growth will not cause any significant deterioration in water quality and that WwTWs and their associated sewer networks are not likely to need upgrading by 2036. However, it has been identified that there may need to be some consideration to sewerage network upgrade evidenced by modelled flooding of Ingatestone High Street during a 1 in 100 year annual event due to capacity of sewer network in the area.
- 5.51 Consent limits may need to be revised for Brentwood and Ingatestone WwTWs as DWF has been predicted to exceed the current consent limits. This applies to both single house occupancy of 5 people and single house occupancy of 2.5 people. Permit levels may also need to be revised for ammonia at Doddinghurst WwTW, to prevent WFD class deterioration.

Water Supply¹⁴

- 5.52 Affinity Water - It is clear from the forecast supply-demand balance and the main Water Resources Management Plan (WRMP14) that the resource situation in this area is constrained by environmental water availability, and that with growth forecast, if there were no interventions security of supply would be at risk. The WRMP14 forecast takes into account that over 33,020 new properties will be built in WRZ5 by the end of the planning period in 2040. There are 169 homes scheduled in the Affinity Water WRZ5. Due to the low volume of development in the WRZ5 growth plans set out by Brentwood Borough Council certainly have the potential to be accommodated within the overall Affinity Water WRZ5 WRMP, however, further confirmation from Affinity Water will be required to firstly assess demands developments occurring outside of the Brentwood area and to ensure that the individual developments proposed have been fully incorporated into each WRMP.

¹³ Information extracted and summarised in part from WCS Update – further technical information is available within the main publication.

¹⁴ Information extracted and summarised in part from WCS Update – further technical information is available within the main publication.

- 5.53 Essex and Suffolk Water projections have shown a supply between the 2014 WRMP and 2040 under current forecasts. The forecast takes account that 136,504 properties will be built by 2030 and the household population is expected to expand from 1.628 million to 1.866 million people. There are up to 9686 homes forecast in the Essex WRZ under growth plans (including windfall) set out by Brentwood Borough Council. Given that the forecast takes into account almost 15 times that figure, and the water resource zones is surplus it appears that Essex and Suffolk Water have sufficient capacity to meet the demands of future developments.

FINANCIAL CONSIDERATIONS

- 5.54 The financial considerations arising from this chapter are detailed in Part B of IDP.

06 WASTE



OVERVIEW

6.1 What we do with our waste and how we manage the environment and finite resources in a sustainable manner are nationally high-profile topics, particularly with recent media coverage on plastic waste, both within the UK and overseas.¹ The environmental charity WRAP focuses upon the need for a whole lifecycle approach to resources, with priorities to:

- re-invent the way we design, produce and sell products;
- re-think how we use and consume products
- re-define what is possible through re-use and recycling.

In terms of waste resource management, WRAP analysis indicates clear opportunities for growth in the recycling sector and jobs through taking a smarter approach to how we manage finite resources, minimise waste and return more material to the UK economy through recycling.²

6.2 It is generally down to individual councils as to how they collect and manage waste, but there is both domestic and European legislation and government policy which has helped to drive recycling rates. Key drivers include the Landfill Allowance Trading Scheme, a mechanism designed to help meet landfill diversion targets under the EU Landfill Directive. Under this scheme, councils are given a decreasing number of allowances for sending waste to landfill each year which they can trade. This provides an incentive for councils to invest in recycling facilities. Recycling data is uploaded by

¹ <https://www.bbc.co.uk/news/science-environment-42264788>. The legal definition of waste in the UK is derived from the EU Waste Framework Directive (Directive 2008/98/EC). The Directive states that 'waste' is:- "Any substance or object which the holder discards or intends or is required to discard. Information from p.7 para 1.4 Essex County Council & Southend-on-Sea Borough Council 'Essex and Southend-on-Sea Waste Local Plan' Adopted July 2017.

² WRAP – Resource Revolution: Creating the Future – WRAP’s plan 2015-2020

councils quarterly to the government's online WasteDataFlow database and league tables are produced at the end of each financial year.

6.3 Landfill Tax is also an increasingly important driver. First introduced in 1996, this tax is applied to every tonne of waste sent to landfill. It currently stands at £48 a tonne for 'active' waste and £2.50 a tonne for 'inactive' waste³.

6.4 The Waste Local Plan, sets out policy considerations which are relevant to the Brentwood Local Plan, including:

- Policy 4 – Areas of Search – Areas where in principle the Waste Planning Authorities may support waste management development outside of allocated sites – these include Childerditch Industrial Estate and West Horndon Industrial Estate.

No new strategic site allocations for waste are detailed within the waste plan for the Brentwood Borough area.

6.5 The annual percentage recycling rates for household waste within Brentwood Borough that is reused, recycled and composted are available below in Figure 6.1. According to WasteDataFlow for the period covering the financial year 2015/16, Brentwood Borough Council was rated 130th out of 351 local authorities for household waste recycling. Local Authorities towards the top of the table are achieving recycling rates of circa 66% and towards the bottom circa 15%.⁴ Brentwood is committed to working towards a recycling rate of 60% by 2020. It is estimated that the average household in the UK produces more than a tonne of waste every year and that the average cost per tonne of waste disposal is about £92.30.⁵

³ Information in paragraphs 7.2 & 7.3 reproduced from www.letsrecycle.com

⁴ <https://www.letsrecycle.com/councils/league-tables/201516-overall-performance/>

⁵ Letsrecycle baseline information – based upon January 2017 estimates for Energy from Waste, Landfill plus tax and Refuse Derived Fuel – calculation excludes landfill with no tax which was estimates at between £15-25 per tonne.

Figure 6.1: Household Waste Recycling

Period For	Annual %
2015-2016	45.9
2014-2015	47.69
2013-2014	43.5
2012-2013	43.2
2011-2012	43
2010-2011	41
2009-2010	40
2008-2009	38
2007-2008	35
2006-2007	31
2005-2006	27

EXISTING INFRASTRUCTURE, GAPS AND PROGRAMMES

Existing Infrastructure – Recycling Centres

- 6.6 Within the Borough, Essex County Council is responsible for the operation of the two Recycling Centres for Household Waste (RCHW) in the Brentwood Borough, these centres are located at Coxtie Green, Brentwood and Roman Road, Mountnessing. The Mountnessing RCHW will not accept domestic and construction waste, while the Brentwood RCHW will accept all waste materials to allow for domestic disposals but not trade waste.
- 6.7 The Borough Council runs a recycling site at the Works Depot, The Drive, Warley. This site provides facilities for recycling paper, cardboard, plastics, cans and paper based liquid food and drinks cartons. Textiles, glass and small electrical items can also be taken to the recycling site. The Borough also has recycling modules that accept paper, cardboard, cans and plastics at Brentwood and Shenfield High Streets and a recycling bin for newspapers at Brentwood Station.
- 6.8 Kerbside waste and recycling collection in Brentwood Borough includes:
- household, and garden food waste;
 - glass, paper, cardboard, plastics, cans and textiles, and
 - larger household items – pre-booked paid service.

Existing Infrastructure: Waste Transfer Stations – Commercial

- 6.9 Waste transfer stations are designed to aid the sorting and storing of materials before they can be moved on to larger sites for disposal or treatment. Licensed waste collection vehicles generally deposit material at waste transfer stations so that following sorting it can be transported through larger bulk haulage vehicles better suited to transport waste over long distances. The change in vehicle reduces the amount of mileage used by smaller collection vehicles to transport the waste, which in turn helps reduce traffic in local communities.⁶
- 6.10 The Borough currently has a range of licensed trade orientated waste transfer stations⁷ (WTS) some of the WTS are licenced to provide specialist services. Information on environmental licences is available through the Environment Agency Public Registers database. WTS information is detailed below in Figure 6.2.

Figure 6.2: Licenced Waste Transfer Stations

Licensed Holder	Permit Number / Waste Management Licenced Number	Location	Site Type	Additional Info
Range of services				
Heatherland Ltd trading as Landon Plant and Waste Services	Permit number - BP3397NP/V002 / waste management licence number – 80429	Unit 5 & 6, Hallsford Bridge Industrial Estate, Stondon Road, Ongar, Essex, CM5 9RB	A11 : Household, Commercial & Industrial Waste Transfer Station	Licensed by the Environment Agency for all types of solid non-hazardous commercial, domestic, industrial, biodegradable and inert wastes. It is licensed for up to 230,000 tonnes of waste per annum
G. J Bowmer (Waste Disposal) Limited	Permit number - SP3294NT/A001 / waste management licence number – 71310	Fairview, Magpie Lane, Brentwood, Essex, CM13 3DT	A9 : Special Waste Transfer Station	
Philip W Keen Ltd	Permit number BP3997NC/V005 / waste management	9 Hallsford Bridge Ind Estate, Stondon Road, Stondon Massey, Ongar, Essex, CM5 9RB	A14 : Transfer Station taking Non-Biodegradable Wastes	

⁶ Information reproduced from <https://www.biffa.co.uk/household-waste/information-for-councils/our-services/transfer-stations/> - accessed 16th March 2017.

⁷ Information obtained from the Environment Agency Public Registers - <https://environment.data.gov.uk/public-register/waste-operations/registration/BB3708XG-A001?pageState=result-waste-operations>

	licence number - 80431			
Windsor Waste Management Ltd	Permit number - EB3605TJ/A001 / waste management licence no. 403657	Unit 29 Childerditch Industrial Estate, Childerditch Hall Drive, Little Warley, Brentwood, Essex CM13 3HD	S0809 No 9: Asbestos Waste Transfer Station	Provides a complete recycling and waste management service with container and transportation options for on-site and off-site segregation of business waste
Specialist				
S M H Products Limited	Permit number - ZP3799VD/A001/ waste management licence no. 102930	Unit 3 Childerditch Industrial Estate, Childerditch Hall Drive, Nr Brentwood, Essex, CM13 3HD	S0809 No 9: Asbestos Waste Transfer Station	Specialist end to end decontamination services

Existing Infrastructure: Metal Recycling Sites, End of Life Vehicles and Vehicle Depollution Facilities

6.11 There are a number of licenced vehicle trade recycling facilities within the Borough, which are detailed below in Figure 6.3.

Figure 6.3: Licenced Vehicle Trade Recycling Facilities

Licensed Holder	Permit Number / Waste Management Licenced Number	Location	Site Type	Additional Info
Brentwood Auto Spares Ltd	Permit number - AP3598NU/A001/ Waste Management Licence - 71141	Thoby Priory, Thoby Lane, Mountnessing, Brentwood, Essex, CM15 0TB	A19 : Metal Recycling Site (Vehicle Dismantler)	Salvage vehicles and spares.
Jack Ellwood, Frederick C Ellwood, Mark C Ellwood, Jessica E Ellwood / TA Warley Auto Salvage	Permit number - CP3294NW/A001/ Waste Management Licence - 71435	Land / Premises At, Warley Street, Great Warley, Brentwood, Essex, CM13 3LB	A19a : End of Life Vehicle Facility	
German Spare Parts Limited	Permit number - AB3508KZ/T001 / Waste Management Licence - 102446	Unit 1 Claggate, Chivers Road, Brentwood, Essex, CM15 0LH	SR2011 No3: Vehicle Depollution Facility <5000 tps	
Harish Auto Exports Limited	Permit number - BB3708XG/A001 / Waste	Unit 7, Claggate, Chivers Road, Brentwood, Essex, CM15 0LH	SR2011 No3: Vehicle Depollution	

	Management Licence - 401557		Facility <5000 tps	
Europevans Limited	Permit number - BB3304XE/A001 / Waste Management Licence - 401227	Europevans Limited, Thoby Lane, Mountnessing, Brentwood, Essex, CM15 0TB	SR2011 No3: Vehicle Depollution Facility <5000 tps	
R S M Scrap Metal Limited	Permit number - BB3007HQ/A001 / Waste Management Licence - 401043	Four Oaks Yard, Chivers Road, Stondon Massey, Brentwood, CM15 0LH	SR2011 No3: Vehicle Depollution Facility <5000 tps	

6.12 Apart from the licences for the recycling centres, the remaining permits issued by the Environment Agency in the Borough cover a wide range of activities from the use of inert waste to contour golf courses, physical environmental treatments and the treatment of waste to produce soil. Wastewater recycling facilities as discussed in detail in the Water Infrastructure chapter of this report.

Waste Infrastructure – Gaps in Provision and Potential Projects

6.13 Discussions with the Borough Council’s Environmental Health team has indicated potential local gaps in waste and recycling in relation to:

- composting facilities – there is no major specialist facility in the Borough;
- commercial waste recycling – while there are a number of commercial collection services and waste transfer sites, there is potentially a deficit in an easy to access ‘turn up’ or permit access site for businesses depositing small levels of commercial waste - the Borough continues to witness regular fly-tipping and this may help alleviate some of these problems;
- potential lack of innovative thinking in end solutions for waste – recognising the increasing limitations of land fill. Opportunities to explore incineration, and waste to energy thermal and non-thermal technologies at a local level.
- growth and capacity constraints for current RCHW operations.

6.14 There are currently no major plans for investment in waste infrastructure within the Borough.

IMPLICATIONS OF GROWTH

6.15 The uplift in households through the Local Plan allocations is likely to increase pressure on household waste recycling centres or civic amenity sites, where it is noted that user delays can occur at peak times. While there are no plans for major waste projects,

there will be the need to provide potentially additional on-site recycling areas as part of major housing and employment developments.

- 6.16 At a practical level site level, one of the Council's major allocations is the current Warley Depot site. There will be a need to consider an alternative location or approach to delivering major recycling points or services as this site moves forward for re-development. The site is also home to the Council's transport depot.
- 6.17 There are ambitions to increase household recycling rates across the Borough and there may be an opportunity to consider the feasibility of introducing a more integrated or smarter approach to recycling and waste management, particularly on larger scheme projects, including Dunton Hills. The Eddington development in the University of Cambridge's new district has introduced underground bins (about 450) with steel bin chutes which are inset in pavements outside of homes to eliminate the need for about 9000 wheelie bins across the 150 ha / 3000 dwelling site. The system uses a large underground chamber and sensors to notify the waste service when full, with the benefit of only undertaking collections when needed. Similar smaller scale schemes are also in operational across the country.
- 6.18 On the topic of innovation, there are opportunities to tackle the lack of specialist composting facilities in the Borough with developing community composting networks. This could be linked to allotments and other locations including schools and community projects.
- 6.19 There are connections to be made from energy and waste projects which are usually addressed at the Local Waste Plan level including Energy from Waste (EFW) infrastructure.

FINANCIAL IMPLICATIONS

- 6.20 The exact onsite cost of new neighbourhood scale recycling facilities is very much dependent upon the scale and type of facilities. AECOM have estimated that for the provision of on-site recycling areas, this may cost in the region of £200 per residential unit using their cost model for garden towns / villages.⁸
- 6.21 Further business case analysis is required in relation to the Warley Depot site and alternative service provision. The end costs may be significant if re-provision of services is required.

⁸ https://www.aecom.com/without-limits/wp-content/uploads/2018/01/AECOM_180006BP_Masterplanning_0118_CM_FINAL_SP.pdf

6.22 The conventional costs of waste and recycling costs can be requested through s.106 agreements for both containers and vehicle infrastructure. Some calculation suggest that a whole additional vehicle would be required where there is approximately 2,000 residential units. The costs for this type of vehicle are circa £150,000. An indication of conventional container costs is detailed below in Figure 6.4⁹.

Figure 6.4: Waste Container Costs

Containment	Cost*
180 litre wheeled bin 17p per litre	£30
240 litre wheeled bin 19p per litre	£45
660 litre wheeled bin 22p per litre	£145
1100 litre wheeled bin 26p per litre	£286
55 litre black box 15p per litre	£8

6.23 It is recommended that further feasibility work into smart and underground recycling / waste facilities is undertaken in relation to strategic development sites, including Dunton Hills. There is also an opportunity to consider feasibility and start-up financing for community composting pilots.

6.24 Further cost information is detailed in Part B of the IDP.

⁹ Baseline costs and information from - <http://www.wiltshire.gov.uk/wiltshire-council-waste-collection-guidance-for-new-developments.pdf>

07 BROADBAND AND MOBILE TECHNOLOGY

Image To insert

OVERVIEW

7.1 The speed of technological advances can at times seem daunting which makes consideration of infrastructure planning extremely challenging. This chapter tends to focus upon big messages and directions – particularly around broadband / fibre, and mobile telecommunications.

A Snapshot of Change

- 7.2 Each year Deloitte Global produce a set of global technology predictions, which for 2018 focused upon¹:
- Augmented Reality (AR) - the continued expansion of augmented reality linked to apps development and mobile phone technology particularly focused around photorealistic AR and camera features;
 - smartphones – the full potential of smartphones has yet to be fully realised with multiple functionality and artificial intelligence features – smartphones connectivity is also about to undergo a further step change in evolution with the upcoming deployment of 5G services;
 - better understanding of the negative impacts of technology – particularly smartphone on the behaviour and activity of users;
 - machine learning and artificial intelligence – chips are at the heart of much technology - allowing for the use of less power at less cost and faster speeds of data processing with integrated learning;
 - live broadcasting continues to thrive in an online world – video now accounts for 75% of internet traffic;
 - media subscriptions – further growth predicted in number of average number of online subscriptions per individual and household;
 - advertising – reaching customers within a growing culture of ad blocking – particularly within the context of social media;

¹ <http://www.deloitte.co.uk/tmtpredictions/>

- television – continued decline in traditional viewing for 18-24 year olds but the proportion of same age group viewing live and time-shifted television not moving significantly over time;
- supplying services to mobile only customers without access to wired home internet and using restricted broadband speeds if available, and
- in flight connectivity for airlines alongside train / rail based connectivity trends for both surface and underground.

It is obvious from the above snapshot, that technology plays a multi-layered role in how we live, work and play, with access to technology differentiated by age, culture, location and social standing. Getting the right technological infrastructure in place at the right time is fundamental to well-planned and successful communities.

National Planning Policy Framework

7.3 The NPPF is explicit in the support for high quality communications, stating that:

‘Advanced, high quality and reliable communications infrastructure is essential for economic growth and social well-being. Planning policies and decisions should support the expansion of electronic communications networks, including next generation mobile technology (such as 5G) and full fibre broadband connections. Policies should set out how high quality digital infrastructure, providing access to services from a range of providers, is expected to be delivered and upgraded over time; and should prioritise full fibre connections to existing and new developments (as these connections will, in almost all cases, provide the optimum solution)’. (para 112).

Para 20 b) of the NPPF also indicates that strategic policies should make sufficient provision for telecommunications.

UK Digital Strategy

7.4 Published in March 2017, the UK Digital Strategy², builds upon the Government’s Digital Communications Strategy (DCIS 2015)³ and National Broadband Strategy (2010),

² Department for Culture, Media & Sport – Policy Paper – UK Digital Strategy 2017 (Published 1st March 2017) - <https://www.gov.uk/government/publications/uk-digital-strategy>

³ The Government’s ‘Digital Communications Infrastructure Strategy’ (DCIS) builds upon the goal for the UK to have the best superfast broadband network in Europe³ with a challenging focus upon making available ultrafast broadband of at least 100Mbps to nearly all UK premises. It is estimated that improvements in digital connectivity have supported a strong digital economy within the UK, currently worth more than £120 billion each year. The digital sector³ has grown over seven times faster than the economy as a whole between 2008 and 2013.

[In 2013, the digital sector contributed 7.5% (£113 billion)].

as well as the post-Brexit Britain Industrial Strategy (Green Paper) to set out a forward plan for the UK's digital economy.

7.5 The UK Digital Strategy sets out seven key themes for a post-Brexit digital economy in the UK, which are summarised below:

- Building world-class digital infrastructure for the UK – continue to complete the roll-out of 4G and superfast broadband by 2020, but also implement a Universal Service Obligation, giving every individual, business and public premise across the country the right to request an affordable high-speed broadband connection. Also invest over £1 billion to accelerate the development and uptake of next generation digital infrastructure - including full fibre and 5G.
- Giving everyone access to the digital skills they need – ensure all adults in England have access to the basic digital skills training and establish a new Digital Skills Partnership to tackle the digital skills gap and coordinate activity on job promotion. The strategy also focuses upon delivering coding in the National Curriculum, and other areas of skills development.
- Making the UK the best place to start and grow a digital business – creating the right conditions for growth, to encourage innovation-friendly regulation that creates a positive context for the adoption of new technologies and an investment of an additional £4.7 billion by 2020-21 in R&D funding. Priority challenges include helping the UK capitalise on its strengths in science and innovation such as robotics, clean energy and biotechnology.
- Helping every British business become a digital business – ensure businesses have the knowledge and means to access technology, working on existing initiatives, and plug gaps where there are specific challenges. Funding of £13m to be set aside for the development of a private sector led Productivity Council to drive engagement to improve productivity across the economy, including through appropriate use of digital technologies.
- Making the UK the safest place in the world to live and work online – continue to support the National Cyber Security Centre to provide a single point of contact for companies for cyber threats and attacks and introduce a new approach of Active Cyber Defence, using the skills, knowledge and technical expertise of GCHQ working with the country's ISPs (internet service providers) to provide a new level of protection for British cyberspace. Focus also upon national after-school programmes, apprenticeships and adult retraining cyber security and improve security / safety for children using online content.
- Maintaining the UK government as a world leader in serving its citizens online – working towards 25 million GOV.UK Verify users by 2020 and adopting new services onto the government's GOV.UK Pay and GOV.UK Notify platforms and continue work, across government and the public sector, to harness the potential of digital to radically improve the efficiency of our public services -

enabling us to provide a better service to citizens and service users at a lower cost.

- Unlocking the power of data in the UK economy and improving public confidence in its use – continue to ensure that UK businesses can compete and communicate effectively around the world and implement the General Data Protection Regulation by May 2018.

Planning for Growth

7.6 Although seen by some as a new thing, research on fibre optic infrastructure has indicated that fibre has been in common usage with carriers and service providers since as long ago as the 1980s. Within such organisations fibre communication speeds in the 1 Terabit per second range have been achieved and lower speeds in the 10s and 100s of Gigabits per second are commonplace, as are fibre distances in the 10s, 100s and even 1000s of miles. Fibre as a public resource is however less well understood as it is only recently appeared as an end user service in the form of Full Fibre Broadband and so called ‘dark fibre’, where end users connect directly using their own equipment. Particular sectors with high demands for broadband and fibre include:

- corporates - frequently require symmetrical (same speed upload and download) and uncontended (dedicated not shared with other users) and much higher speed connections ‘Pipes’ due either to high demand processing or due to many users within an office. Enhanced security is also increasingly very important in some sectors;
- carriers & ISPs - 4/5G Mobile Cell Tower/ Pico/FemtoCell backhaul and Public Wifi Backhaul connections;
- financial traders – algorithmic Platforms need very low latency (delay on server response times) and many banks need encryption due to regulatory and corporate requirements;
- media production facilities – using extremely large data files, unusual protocols, with high reliability and ultra-high speeds;
- next generation medical drug treatments tailored to the individual, requiring industrial scale genetic sequencing in order to address large populations and
- data centres – where specialist protocols, ultra-high capacities and low latency connections are a common requirement.⁴

⁴ Information from Stephen Pegrum ‘Technology Change, Growth & Planning’ presentation for Brentwood Borough Council

EXISTING INFRASTRUCTURE, GAPS AND PROGRAMMES

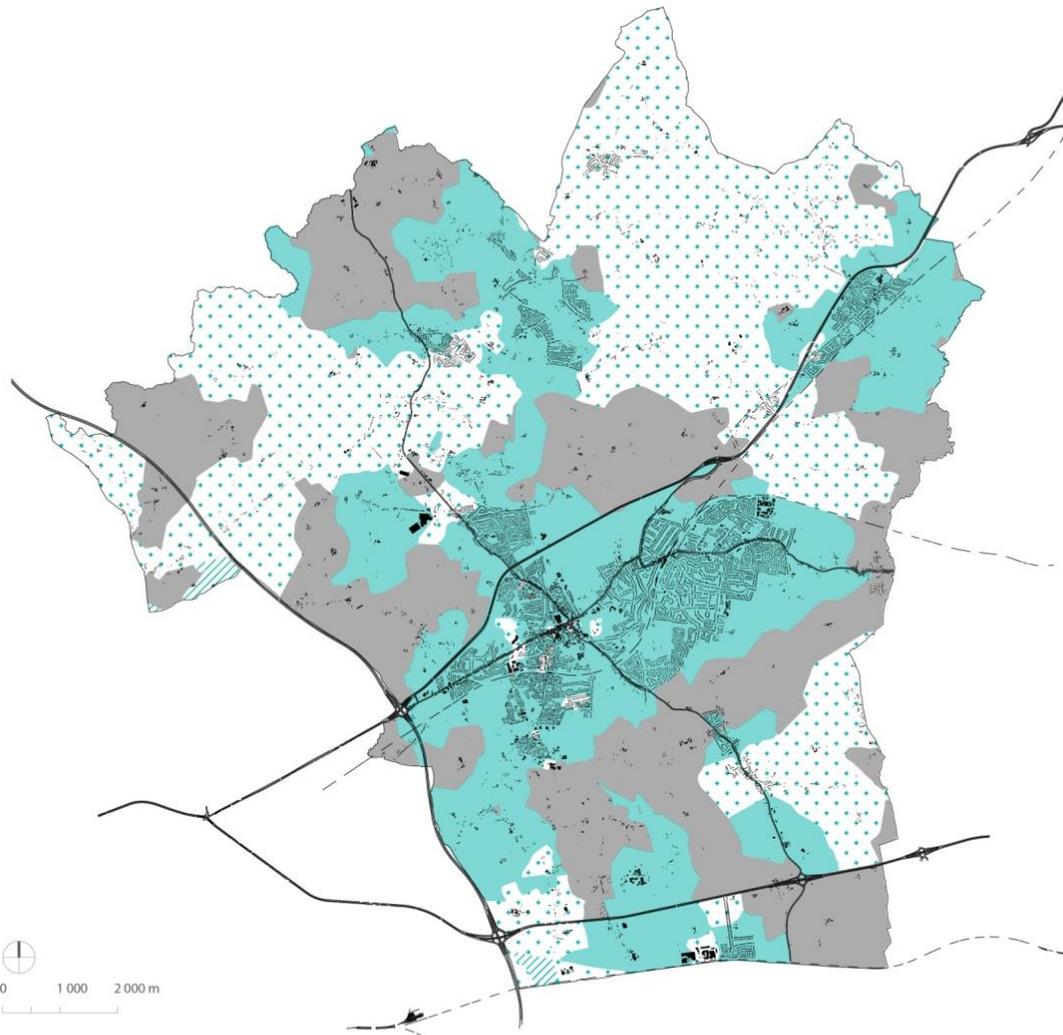
Broadband

- 7.7 Superfast Essex is the county's broadband improvement programme co-ordinated by Essex County Council, and part of the Government's national Superfast Britain programme. Across Essex, the programme is enabling as many homes and businesses as possible to access superfast broadband to enable economic growth and improve residents' quality of life.
- 7.8 Figure 7.1 below provides a snapshot of broadband coverage across the Brentwood Borough as at Autumn 2016, with at the time funding / improvement options. It provides an overview of Broadband at a particular point in time. Further individual property information is available through an interactive mapping system⁵. The map indicates potential deficits in broadband coverage towards the north and south of the Borough.
- 7.9 It should also be strongly emphasised that while so called Fibre Broadband is available in the Borough via BT Openreach, in reality this is Fibre to the Cabinet (FTTC) broadband where the fibre is connected to the Green Cabinets seen at many street corners, with the rest of the connection to homes and businesses being made on the old fashioned Copper wires originally intended for traditional phone lines. Fibre to the Premises (FTTP) services offer dramatically higher speeds than FTTC, currently well into the Gigabit per Second range. BT and its affiliates do not offer FTTP services in the Borough and none are known to be planned at this time. Specialist FTTP providers such as Gigaclear also do not operate in the area due to the prevalence of FTTC services that even so tend only to address urban areas.
- 7.10 Figure 7.2 provides information on fibre optic cabling (excluding BT and Virgin Media) in relation to the Brentwood area. It shows cabling running through Borough from north to south and a loop of cabling towards the south of the Borough.⁶ However this fibre tends not to be available directly to end users because it belongs to various network operators who sell it to particular customers. For end users and SMEs therefore this indicates both a problem and an opportunity should things change in the way fibre based services are sold. It is also notable that locations as close as Southend are now deploying FTTP services through an arrangement with the council.

⁵ <http://essex.astuntechnology.com/atsuperfastsolophase2.html>

⁶ Information from Stephen Pegrum 'Technology Change, Growth & Planning' presentation for Brentwood Borough Council

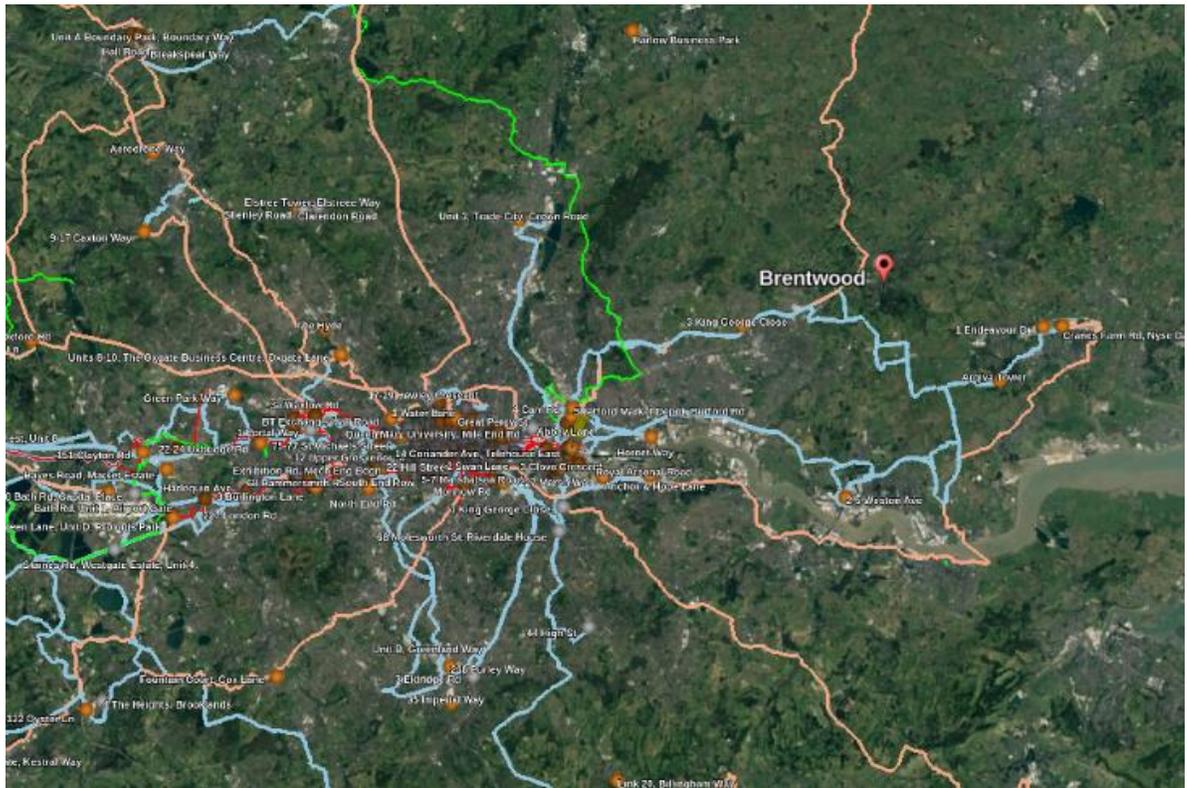
Figure 7.1: Broadband Coverage



- Fibre or wireless broadband available
- Fibre broadband planned
- ▨ Better Broadband Scheme available. Area eligible for future investment
- Not in current plans

Source: Reproduced from www.superfastessex.org/maps as of November 2016

Figure 7.2: Fibre Optic Cabling (excluding BT and Virgin Media)



7.11 Although not detailed on any plans it is understood that there is dark fibre⁷ or at least duct space into which fibre could easily be deployed within Brentwood, linked to the Council’s CCTV infrastructure. There may also be other infrastructure across the Borough such as buildings (for antennas and ducts) and public land across which the borough could if it chose, facilitate the use of for such deployments, as has been done in nearby towns such as Southend as well as Physical Infrastructure Access service from Openreach.

Fibre Projects

7.12 Cross local authority work has been progressing to look at strategy and funding options for enhancing fibre optic cable infrastructure connecting potential high-volume users, including employment sites. There are particular implications for this project linked to the A127 corridor sites.

Mobile Communications

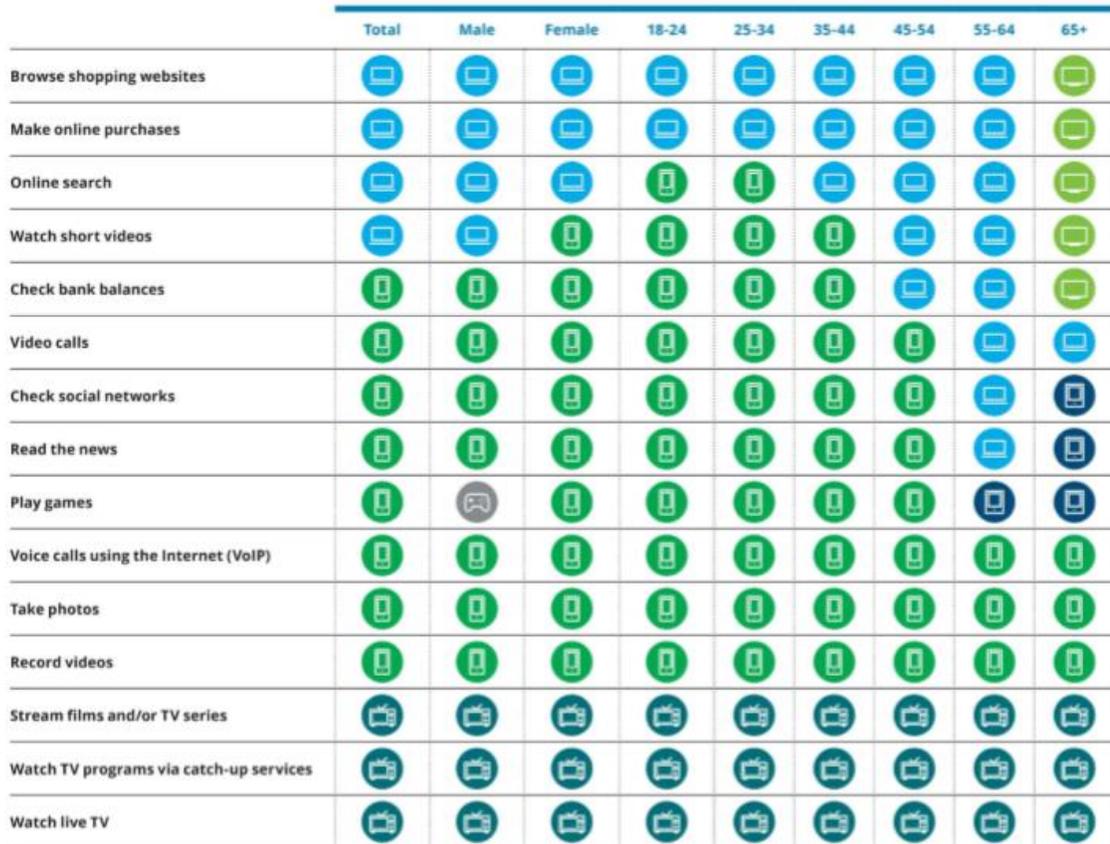
7.13 Mobile phone network provision is an important component of a modern economy and has a vital social function. With development in smart phone technology and mobile internet services, mobile phones are increasing important for e-commerce and

⁷ Dark fibre - unused optical fibre potentially available for use in fibre-optic communication – often laid alongside other cabling as part of infrastructure / communications works.

access to services such as on-line banking. Figures released by IMRG and Capgemini indicate that mobiles and tablets now account for more than half of all online sales in the UK.⁸ As indicated at the beginning of the chapter, the full potential of smart phones has yet to be fully realised with increasing functions and features.

7.14 Figure 7.3 below outlines the range of IT, mobile and media activities by device, showing the strong and increasing performance and increasing dominance of smartphones.⁹

Figure 7.3: Activities by Device



7.15 The infrastructure required for mobile communication includes plant and equipment, including communication masts. If accessing mobile coverage, mobile phones, dongles and tablet computers cannot work without a network of base stations (masts). If the base stations are too far apart, the service can be interrupted. Base stations are usually built about 200 to 500m apart in towns and 2 to 5km apart in rural areas. Base stations can only support a maximum of 120 calls at any one time.

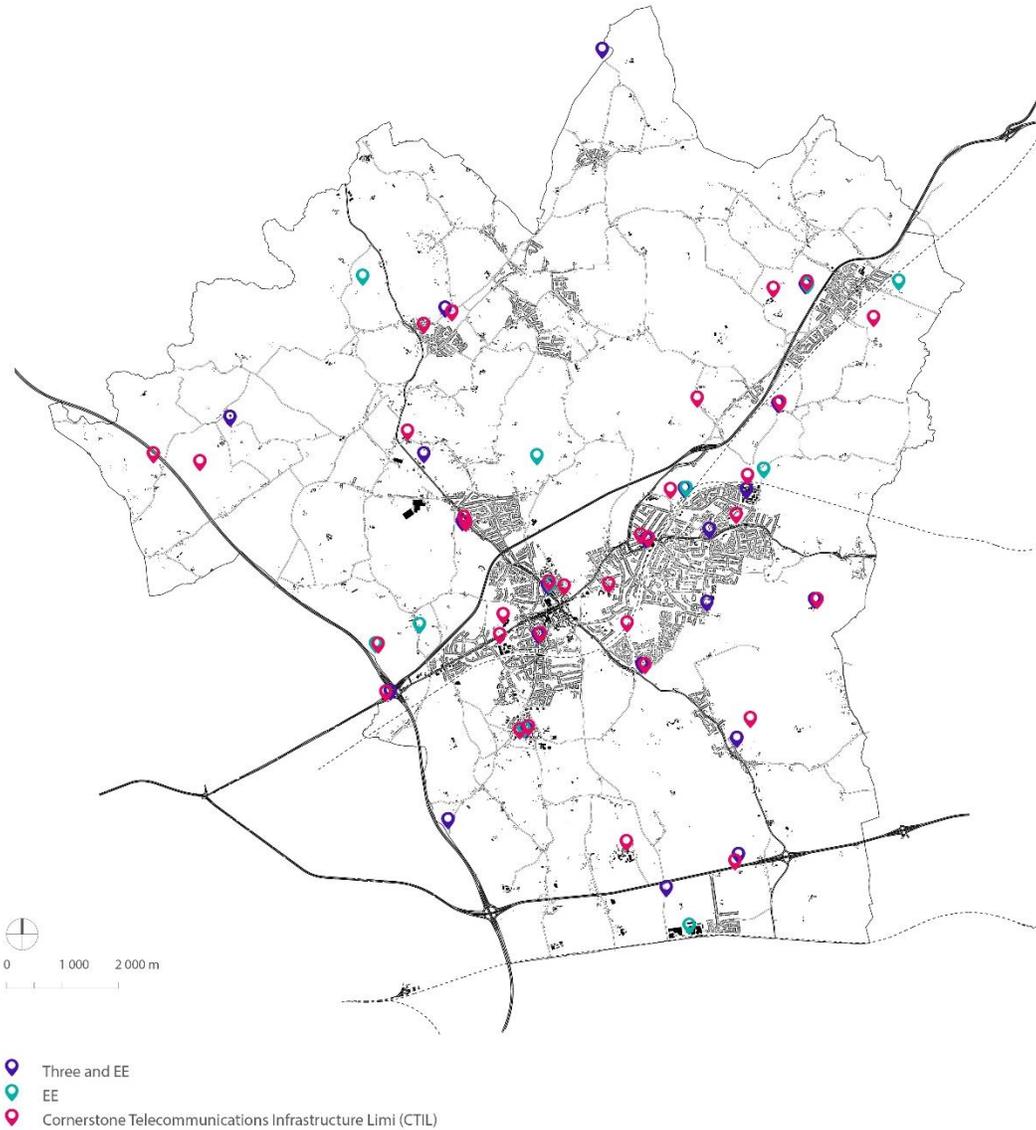
⁸ During the period of November 2015 to January 2016, 51 per cent of UK online retail sales happened via mobile, a significant increase on the 45 per cent share recorded during Q3 2015. Desktop and laptop accounted for 49 per cent of ecommerce sales, 33 per cent of sales came via tablets and 18 per cent via smartphones. Source – E-commerce News and www.thedrum.com.

⁹ Information reproduced from Deloitte Global 2018 TMT Predictions Report.

- 7.16 The Mobile Operators Association Annual Rollout Plan has historically provided up to date information on the mobile signal / broadband infrastructure and was last issued for the Brentwood Borough in 2015/16. The Association is no longer operational.
- 7.17 A copy of the last version of the Mobile Operators Association Annual Rollout Plan (MOAARP) 2015/16 for the Brentwood Borough is included with the IDP as Appendix x. This Appendix also includes 5 additional Vodaphone sites built within 2016. Information has been taken from the MOAARP and the Open Signal¹⁰ mobile data to provide an indication of mobile network signal strength across the Brentwood Borough. Figure 7.3 provides information on mobile masts while Figure 7.4 indicates signal strength using Open Signal mobile data. Weaker mobile coverage is concentrated within the Borough's rural or green field areas. This feature is particularly noticeable to the north of the Borough.
- 7.18 It should be noted that there is likely to be a dramatic increase in the need for mobile radio masts across all regions with the deployment of 5G networks that are necessary to support the smaller cell sizes required to support higher data rates. In turn this will also drive an increase in the need for fibre based backhaul connections between such cell sites and their central nodes.

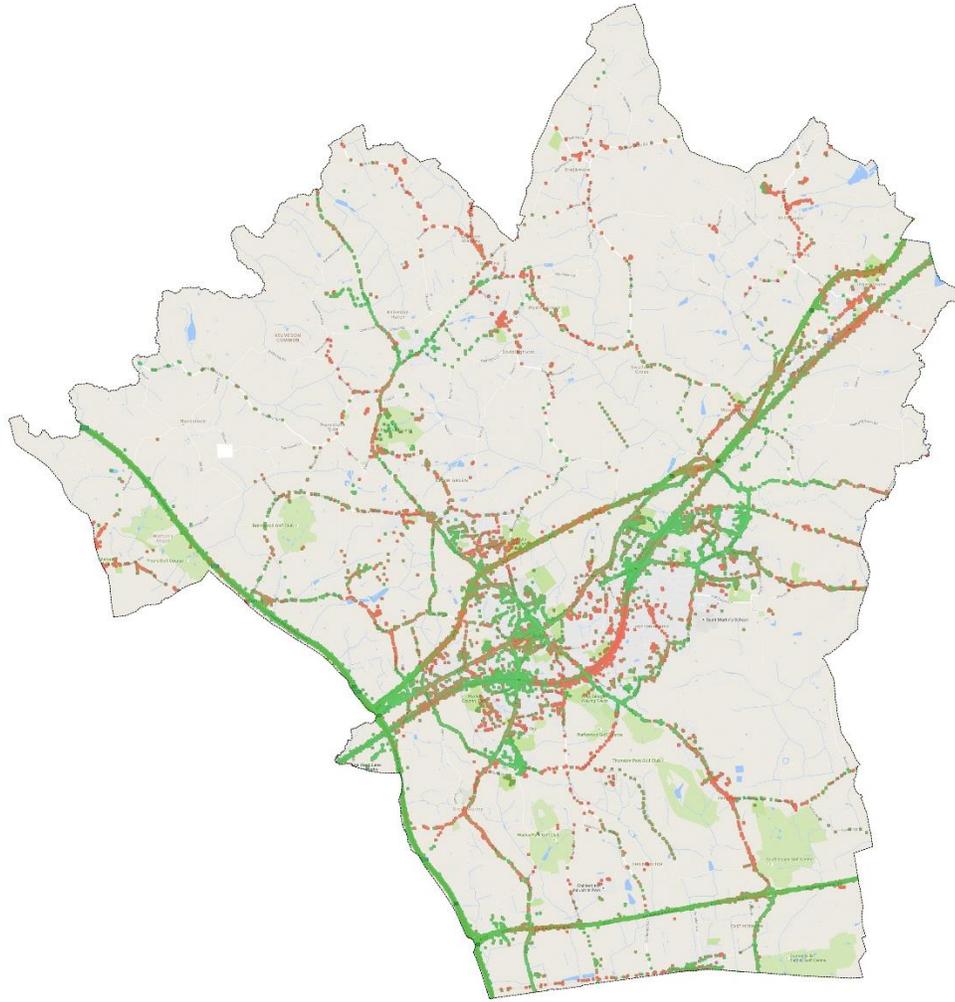
Figure 7.3: Mobile Masts

¹⁰ <https://opensignal.com/> - OpenSignal is a company that specializes in wireless coverage mapping. The company crowdsources data on carrier signal quality from users who have its consumer mobile application installed

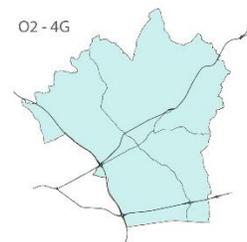
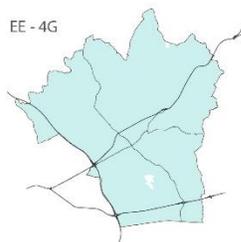
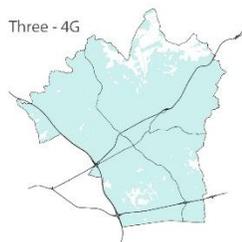


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Figure 7.4: Mobile Coverage



- Weak signal
 - Strong signal
 - No data collected
- Source: <https://opensignal.com/>



- Areas likely to have sufficient signal to use 4G data services reliably
 - Areas unlikely to have sufficient signal to use 4G data services reliably
- Source: www.ofcom.org.uk

Other Telephone Infrastructure

- 7.19 No specific information was available at the time of publication, regarding the range of locations of BT public phone boxes across Brentwood. In line with BT's strategy in other parts of the UK, the company indicated in 2016 that it would like to disconnect a significant quantity of telephone boxes across Essex County - around 300 in total.¹¹ BT has indicated that it has seen a 90% decline in pay phone usage over the last decade. However, Ofcom has indicated that phone boxes can provide a useful service for people who don't have any kind of phone or for people who find that their mobile phone isn't working.¹² BT now offers an 'Adopt a Kiosk' programme for local communities to take ownership of local phone boxes for a variety of uses and as part of the valued local heritage.

IMPLICATIONS AND OPPORTUNITIES OF GROWTH

- 7.20 There are clear opportunities available to improve current broadband and mobile technology across the Borough – particularly in poorer served areas to the north and south of Brentwood. In line with NPPF priority needs to be placed in the Local Plan to supporting where possible full fibre connections to existing and new developments. There are also opportunities with fibre optics in particular as part of a sector driven approach to economic growth and opportunities along the A127 corridor and within Brentwood town.
- 7.21 The provision of new and enhanced broadband and mobile coverage is also a clear business opportunity. There is strong market demand amongst residents and prospective new residents for effective broadband and mobile technology to not only provide 'the basics' of reliable mobile phone coverage and fast broadband connections but also increasing smart house technology for assisting in the running of properties. Estate agents also report that an increasing number of buyers are willing to pull out of a deal if broadband is not available in that area. The property search website rightmove.co.uk has added a broadband speed checker to every one of its listings, alongside details of transport links and schools. Given the market demand for broadband, and the fact that costs per unit for larger sites are usually cost neutral (except for fibre to the door / curb infrastructure), it makes good business sense to ensure that new developments include high speed broadband infrastructure as a matter of course.
- 7.22 If broadband installation is integrated into the planning of developments as early as possible, it may be possible to mitigate costs of installation through electricity and broadband cables sharing the same infrastructure assets, routes or networks. Potential

¹¹ <http://www.itv.com/news/anglia/2016-10-26/people-see-red-over-plans-to-remove-1-000-public-phone-boxes/>

¹² https://www.ofcom.org.uk/__data/assets/pdf_file/0035/47879/removing_callboxes.pdf

savings of 16-26% could be achieved where existing infrastructure is used to rollout broadband.¹³

7.23 It is recommended that further auditing / review work is undertaken on broadband / mobile technology improvements as part of a refresh on the IDP.

7.24 It has been noted that the increased prevalence of high quality network infrastructure can be a driver for general economic growth. According to a study by Deloitte and GSMA summarised in the following statement:

'For a given level of total mobile penetration, a 10% substitution from 2G to 3G penetration increases GDP per capita growth by 0.15 percentage points'.¹⁴

It has been anticipated that similar growth can be anticipated by each technology generational change e.g. 3G to 4G to 5G mobile and DSL to FTTC to Full Fibre fixed networks.

FINANCIAL IMPLICATIONS

7.25 Part B of the IDP includes calculations on the cost of supplying fibre to the door / curb, which equate to circa £880 per dwelling based upon European Research.¹⁵ Although it is likely that innovation in this area could later such estimates considerably.

7.26 Funding should also be set aside to support local fibre adoption strategies where commercial interest is more limited. Further up to date information is also required on mobile and fibre optic capacity and opportunities across the Borough. It should be noted that planning and highways regulations can have a highly beneficial effect on the cost of deploying new fibre services, such as mandating the provision of duct infrastructure while roads are opened for other works such as gas, electricity or water, where the low incremental cost of such work could have a very minor effect. Although it may be difficult to provide a contiguous duct connection from end to end, where such infrastructure is available it can have a significant effect on the overall cost once such sections are joined.

¹³ Information on the benefits of installing high speed broadband taken from Colchester Borough Council – 'Planning for Broadband' February 2016.

¹⁴ Reference to be added

¹⁵ Reference to add.

08 EDUCATION AND EARLY YEARS



OVERVIEW

Education Provision - General

- 8.1 Education infrastructure is often a critical factor for families when considering where to live, with good quality education facilities often creating a strong local demand for housing within the catchment areas of popular and successful schools. In general terms, education infrastructure can be defined as:
- early years and nursery provision;
 - primary school provision;
 - secondary schools (with and without sixth forms);
 - special schools
 - post-16 education and training, and
 - adult community learning.
- 8.2 With regard to early years provision, as a local authority, Essex County Council has a duty through the Childcare Act 2006, to ensure, as far as reasonably practicable, that there is the provision of sufficient, sustainable and flexible childcare that is responsive to parent's needs. Section 7 of the Act specifically sets out a duty to secure free early years provision for pre-school children. The current regulations prescribe that every child aged three or four is entitled in England to get 570 free childcare hours per year, which is usually taken as 15 hours a week for 38 weeks of the year. Qualifying families are also eligible for 30 hours free childcare a week for 3-4 years old. Approved childcare providers include: registered childminder, playscheme, nursery or club; childminder with an Ofsted-registered childminding agency; registered school and home careworker working for a registered home care agency.
- 8.3 Under section 14 of the 1996 Education Act, local authorities must secure sufficient school places to serve their area. The available schools must be sufficient in number,

character and equipment to provide all pupils with the opportunity of an appropriate education. Section 2 of the 2006 Education and Inspections Act further places Essex County Council, as the appropriate local authority, under a duty to secure diversity in the provision of schools and increase opportunities for parental choice. Subsequent legislation has encouraged the development of a more diverse range of education providers, particularly Academy Trusts and Free Schools.

8.4 It is recognised that the range and types of schools available in England can be confusing and has changed dramatically over recent years to include¹:

- **Community schools** - controlled and run by the Local Education Authority (LEA), the LEA owns the land and buildings and determines admission arrangements;
- **Foundation schools** – funded by the LEA, but run by a school governing body. The governing body is the admissions authority and employs staff. The school land and buildings are generally owned by the governing body or a charitable foundation;
- **Trust school** – type of foundation school which forms a charitable trust with an outside partner – land is owned by the trust and run by a governing body;
- **Voluntary aided school** – usually religious or faith schools, which are supported by the LEA and supporting body – the governing body employs staff and decides admission arrangements. The land and buildings are normally owned by a charitable foundation and the governing body contributes to building and maintenance costs.
- **Voluntary controlled school** – similar to voluntary aided but funded solely by the LEA. The LEA is the admission authority and consults with the supporting body in drawing up admissions policy. The land and buildings are usually owned by a charitable foundation. The Local Education Authority employs the school staff and has responsibility for admissions
- **Academies** - state funded with power to direct their own curriculum. Academies are established by sponsors from business, faith or voluntary groups in partnership with the Department for Education working with the community. Together these fund the land and buildings with the Government covering the running costs. Academies can be flexible with their curriculum, term dates, and staffing to meet local needs and are the admissions authority.
- **Free school** – type of academy funded by government but not controlled by the LEA. Teachers, parents, existing schools, educational charities, universities, or community groups can set up free schools. The group must form a company and choose members and directors to run it.

¹ Types of schools descriptions summarised from <https://childlawadvice.org.uk/information-pages/types-of-school/>

- **Specialist school** – follow the national curriculum and can focus upon can become a specialist school in areas such as technology, language, sports or arts.
- **Faith schools** - religious led schools which are usually voluntary controlled and responsible for setting their own admission policies and teach religious education according to its religious precepts. Faith schools admit pupils on religious affiliation grounds but many admit those who are not of the school faith and voluntary aided faith schools have to comply with the school admissions code of practice.
- **Grammar schools** - similar to foundation schools but are permitted to select pupils by ability. They are funded by the Local Authority, but run by the governing body, which acts as admission authority.
- **Special education needs schools** - Local Authorities fund some special schools to meet the needs of pupils who have a Statement of Special Educational Needs or Education Health and Care Plan are unable to attend a mainstream school due to their special educational needs. Many special schools are independent schools and are not funded by Local Authorities.
- **City technology colleges** - funded partly by the government and partly by independent organisations they offer a wide range of vocational qualifications alongside GCSEs and A-levels for pupils aged 11-18. The governing body will act as the admission authority and create its own admission policy. The schools tend to focus upon vocational qualifications alongside the national curriculum.
- **Independent schools** - may be described as private or public schools and are funded by the fees paid by the parents of pupils, contributions from supporting bodies and investments. They are not funded or run by central government or a Local Authority they set their own curriculum but all must be registered with the Department for Education and are regularly inspected by the Independent Schools Inspectorate to ensure that standards are maintained.

8.5 Brentwood has a wide range of schools, including independent schools. The main focus for Chapter 8 is however upon free to access non-independent schools.

8.6 For over 18 education and training provision, the Adult Community Learning Essex (ACL) organisation offers a range of learning opportunities for both individuals and businesses. Other information to add.

8.7 Demographic headlines – schools The population of Brentwood Borough has steadily risen with an increase of 7.56% between 2001 and 2011 (*Census 2011*). Births in Brentwood are relatively stable, but the trend over time also shows an increase. Natural change in the composition of the population indicates that there will be a deficit of existing primary school places in the period 2012-2017 which is further exacerbated by new housing.

EXISTING INFRASTRUCTURE, GAPS AND PROGRAMMES

Early Years and Childcare Provision

- 8.8 The early years and childcare sector includes a wide range of provision which often means that the County Council acts as a facilitator to the childcare marketplace – working in partnership with the private, voluntary and charitable sectors to enable a wide range of childcare options to be available. Demand for early years and childcare provision is driven by the quality of provision, housing and also employment-led development, as people look to access care for pre-school children within quick access of home or places of work.
- 8.9 Essex County Council (ECC) has a duty to ensure, as far as reasonably practicable that there is sufficient childcare across Essex to meet the needs of parents. This is called childcare sufficiency, with ECC required to publish a ‘Childcare Sufficiency Assessment’ every three years to give a portrait of the local supply and demand for childcare. Within ECC, a multi-agency County Childcare Sufficiency Strategy Group meets frequently across the academic year to consider new information and issues affecting childcare sufficiency. The group looks at childcare occupancy data (which is collected each term), any local parental consultation data, information on proposed housing developments and local knowledge of the childcare settings within the authority, to produce Local Childcare Sufficiency Action Plans targeted at addressing matters arising.
- 8.10 The Summer 2016 sufficiency data is detailed in Figure 8.1 for the Brentwood Borough². From this figure it can be noted that the largest single category of childcare provision is from childminders at 51 settings or 38% of the overall provision. Pre-schools make up the second largest grouping at 28 settings or 21% of the overall provision. The Warley Ward has the largest number of total early years settings (14 in total), with Brentwood North and Hutton North Wards each with 12 settings. Hutton South has the lowest level of settings at 4 locations.

² The childcare sufficiency map is updated annually and last updated using data from 2017. This section of the IDP will be updated shortly from the 2016 base data. <https://www.essex.gov.uk/Education-Schools/Early-Years-Childcare/Find-a-provider/Pages/Childcare-sufficiency-map.aspx>

Figure 8.1: Early Years Provision (2016 Base Data)

Wards	Childminder	Holiday Club	Breakfast Club	After School Club	Primary School Nursery	Pre-school	Day Nursery	Independent Nursery	Total
Tipps Cross		1	1	1	1	2			6
Brizes and Doddinghurst	4		1	3		2	1		11
Ingatestone, Fryerning and Mountnessing	4		1	1		1	2		9
Pilgrims Hatch	2	1				2	1		6
South Weald	6					1			7
Brentwood North	6	1	1	1		1	2		12
Shenfield	3		1	2		2	2		10
Hutton North	3		2	3		3	1		12
Hutton South	2					1		1	4
Hutton Central	4		2	2		3			11
Hutton East	3	1					2	1	7
Brentwood West	7		1			1	1		10
Brentwood South	2	3				3	1		9
Herongate, Ingrave and West Horndon	1		2	2		2			7
Warley	4		1	1		4	2	2	14
Total Number of Settings	51	7	13	16	1	28	15	4	135
% of Total Settings	38%	5%	10%	12%	1%	21%	11%	3%	101%

8.11 Ward level information from 2016 on potential early years and nursery capacity issues is detailed below in Figure 8.2. It indicates potential challenges to provision in Brentwood North, Brentwood South, Brizes and Doddinghurst, Herongate, Ingrave and

West Horndon, and Ingatestone, Fryerning and Mountnessing, Pilgrims Hatch, Shenfield, South Weald and Tipps Cross wards.

Figure 8.2 Review of Early Years – Potential Capacity Issues

Ward Name	Number of available 2 YO funded places	Number of available 3 YO funded places	Over 80% Capacity *	Current Childcare Sufficiency Issues
Brentwood North	0	4	2	There are very few funded places available- which will cause particular issues with any further developments or the 30 hour offer.
Brentwood South	5	13	2	Limited number of 2 YO funded places.
Brentwood West	0	6	0	Even though the data depicts that none are over 80%, there is clearly a need due to the limited 2 and 3-4 YO funded places
Brizes and Doddinghurst	2	0	2	There are very few funded places available- which will cause particular issues with any further developments or the 30 hour offer.
Herongate, Ingrave and West Horndon	0	9	2	No full day care available
Hutton Central	4	6	0	Limited amount of settings returned forms, however limited full day care opportunities within this ward.
Hutton East	0	12	1	No available 2 YO funded places.
Hutton North	0	28	3	The majority of 3-4 year old funded vacancies are all in one setting.
Hutton South	0	2	1	The majority of 3-4 year old funded vacancies are all in one setting.
Ingatestone, Fryerning and Mountnessing	2	6	1	There are very few funded places available- which will cause particular issues with any further developments or the 30 hour offer.
Pilgrims Hatch	0	6	1	There are very few funded places available- which will cause particular issues with any further developments or the 30 hour offer.
Shenfield	0	0	1	Lack of current information on capacity – cautionary approach taken.
South Weald	3	5	0	There are very few funded places available- which will cause particular issues with any further developments or the 30 hour offer.
Tipps Cross	6	7	1	There are very few funded places available- which will cause particular issues with any further developments or the 30 hour offer.
Warley	10	17	3	No major issues identified at this stage.

Primary School Capacity – Published Data

- 8.12 In the 2016/17 academic year, there were 5,771 pupils at Essex Local Authority primary and nursery schools (including academies). This equates to about 4.85% of the total primary and nursery pupil numbers in Essex schools (118,915).³
- 8.13 With the introduction of greater autonomy and range in the provision of education and the increasing number of academies, the role and responsibilities of local education authorities has changed. The County Council acts as a commissioner rather than a provider of new schools. It has the duty to set out the requirements for any new school needed to serve a new community in order that potential providers may express their interest in providing that school. Where a Section 106 agreement provides the land and funding for a new school, the County Council will usually procure the school building and then transfer the new building for the successful provider to occupy.
- 8.14 Regardless of whether schools have Academy status, are Free Schools, or are maintained schools, the County Council remains the responsible authority for ensuring that there are sufficient school places available within the county to meet the educational needs of its school age (5-19 years) population. This means that the County Council remains the appropriate authority to assess the requirements for school place provision for any new housing developments; be a signatory to any S106 agreement and receive the appropriate contributions.
- 8.15 Essex County Council publish data on the current and forecast capacity of existing primary schools in Essex in the publication 'Commissioning School Places in Essex' (latest edition 2017-2022 at the time of drafting). The LEA also publishes a rolling 10-year plan ('Meeting the demand for school places in Essex 10-Year Plan') which takes into account the new forecasts, the capital budget setting cycle, and potential options and solutions that have been identified since the previous version.
- 8.16 The schools are grouped under broad planning group areas within the publications which are set by the LEA to consider strategic school place planning across various spatial areas. Published figures for 2016/17 indicate a surplus of primary school places within Brentwood Planning Group area (157 places); surplus within Ingatestone / Mountnessing Planning Group area (26 places); surplus within Doddinghurst / Kelvedon Hatch Planning Group area (70 places) and a deficit of 8 places within Not Group / Other planning area (west Horndon)⁴.
- 8.17 However, when you take into consideration demographic modelling and an uplift for new developments (generally planning permissions), and forecast through to 2021/22 the published figures are quite different and detailed below in Figure 8.2. It can be noted that by 2021/22 there is a forecast deficit in school places within the Brentwood Town (Group 1) and Other / Not Grouped (Group 4 – West Horndon) areas.

³ Source: Essex County Council: Commissioning School Places in Essex 2017-2022.

⁴ Two of the schools within Brentwood Town Group 1 (Larchwood Primary and Hogarth Primary) listed in Figure 8.2 have been subject to recent investment to increase the level of pupil spaces and improve school facilities.

Figure 8.2: Primary Schools - Planning Group Data

Primary School	Net School Future Capacity (2017/18)	Forecast Surplus / Deficit (including housing adjustment for planning permissions) (2021/22)
BRENTWOOD TOWN (Group 1)	4855	-39
Grouped Schools: Bentley St Paul's Church of England (Voluntary Aided) Primary School, Hogarth Primary School, Holly Trees Primary School, Hutton All Saints' Church of England Primary School, Ingrave Johnstone Church of England (Voluntary Aided) Primary School, Larchwood Primary School, Long Ridings Primary School, St Helen's Catholic Junior School Academy, St Helen's Catholic Infant School, St Joseph the Worker Catholic Primary School, St Mary's Church of England (Voluntary Aided) Primary School, Shenfield, St Peter's Church of England (Voluntary Aided) Primary School, South Weald, St Thomas of Canterbury Church of England (Aided) Infant School, Brentwood, St Thomas of Canterbury Church of England (Aided) Junior School, Brentwood, Warley Primary School and Willowbrook Primary School.		
INGATESTONE / MOUNTNESSING (Group 2)	432	18
Grouped Schools: Ingatestone and Fryerning Church of England (Voluntary Aided) Junior School, Ingatestone Infant School and Mountnessing Church of England (Voluntary Controlled) Primary School.		
DODDINGHURST / KELVEDON HATCH (Group 3)	810	24
Grouped Schools: Blackmore Primary School, Doddinghurst Church of England (Voluntary Controlled) Junior School, Doddinghurst Infant School and Kelvedon Hatch Community Primary School.		
OTHER / NOT GROUPED (Group 4)	125	-21
Grouped School: West Horndon Primary School		
GRAND TOTALS	6222	-18

8.18 It is generally accepted that education provision in an area should not operate at 100% of its capacity, as it is important to retain some level of surplus places. The National Audit Office report 'Capital Funding for New School Places' (2013) refers to a minimum 5% surplus that the Department for Education assumes in its planning as necessary to support operational flexibility (mid-year admissions) and facilitate parental choice. A

deficiency may thus be deemed to exist without the certainty of every local place being filled.

- 8.19 In order to address some of the immediate primary school pressures within the Brentwood Town Group 1 area, the LEA is seeking to expand Warley Primary School by 1 form entry (1fe) with a scheduled opening in 2019. Within the Group 4 area, West Horndon Primary School is also to be expanded by half a form entry (0.5fe) to accommodate current pressures.

Secondary School Capacity – Published Data

- 8.20 In the 2016/17 academic year there were 7,261 pupils at secondary schools in Brentwood Borough. This equates to about 8.58% of the total secondary pupil numbers in Essex schools (84,672 pupils).⁵
- 8.21 There are two planning group areas for secondary schools within Brentwood and the total published figure covering both areas for 2016/17 indicates a surplus of 921 places, driven in part by the development of a new free school (Becket Keys Church of England) which opened in 2012.⁶
- 8.22 Along similar lines to the primary school data, Figure 8.3 below indicates net school capacity (2017/18) and forecast surplus / deficit in pupil places (including an adjustment for planning permissions) to 2021/22 for secondary school grouped areas. It indicates a net surplus of 385 pupil places across the combined planning group areas, but with potential deficit in places at the Anglo European School.

Figure 8.3: Secondary Schools - Planning Group Data

Secondary School	Net School Future Capacity (2017/18)	Forecast Surplus / Deficit (including housing adjustment for planning permissions) (2021/22)
BRENTWOOD TOWN (Planning Group 1)	6844	425
Grouped Schools: Becket Keys Church of England Free School, Brentwood County High School, Brentwood Ursuline Convent High School, Shenfield High School and St Martin's School.		
OTHER / NOT GROUPED	1338	-40
Anglo European School		
GRAND TOTALS	8182	+385

⁵ Source: Essex County Council: Commissioning School Places in Essex 2017-2022.

⁶ Source: Essex County Council: Commissioning School Places in Essex 2017-2022.

- 8.23 It should be noted that the figures published in Figures 8.2 and 8.3 are dated with new forecasts expected in Autumn 2018.
- 8.24 There are no immediate plans for major expansion of secondary school provision within the Brentwood Borough based upon current need.

Special Education Needs

- 8.25 There are two special schools within Brentwood Borough – the Endeavour School and the Grove House School. Each school has a small pupil intake (118 pupils at the Endeavour School and 105 pupils at The Grove House School). It is understood that there are physical capacity constraints at the Endeavor School which limits options for the school to extend into a sixth form offer to support existing pupils looking to continue their education and provide a facility for pupils moving from other Brentwood schools.
- 8.26 The Endeavor School has identified a gap in the provision of sixth form facilities and continued learning opportunities for students attending the school and pupils requiring specialist education services from other schools. It is recognised within the sector that there is a high educational drop-out rate of pupils originally from specialist schools who attend post-16 education facilities outside the specialist school network or embark on apprenticeships or work orientated training courses. It is envisaged that this new facility would accommodate space for about 60 post-16 pupils.

Post 16 Education and Training and Adult Community Learning

- 8.27 Adult Community Learning (ACL) Essex, run a wide range of daytime and adult learning courses including, arts and crafts, English and maths, English for Speakers of Other Languages (ESOL), general interest courses and languages. The Brentwood learning venue is based at Bishops Hill, Hutton.

IMPLICATIONS OF GROWTH

- 8.28 The development site information used to underpin the findings in this section is further detailed in Chapter 2 of the IDP.

Early Years and Childcare Provision

- 8.29 An analysis has been undertaken of the potential implications of new development on child yield for early years and nursery provision. This assessment uses the following formulas:

- formula 1 (residential schemes): estimated site dwelling capacity x child yield per qualifying dwelling type, and
- formula 2: (employment schemes): site size x ratio of floorspace by employment type x employment density per employment type x child places per 100 employees.

For residential developments, the child yield from qualifying houses is nine children per one hundred homes (0.09 per dwelling) with half this number expected from qualifying flats i.e. 0.045 per dwelling. These figures are derived from The Essex County Council Developers' Guide to Infrastructure Contributions (Revised Edition 2016).

- 8.30 When estimating the number of early years and childcare places that a new employment proposal will require, a factor of four places per one hundred employees is used. In the absence of detailed site information for employment, The Homes and Communities Agency 'Employment Density Guide' (3rd Edition) November 2015 is used as a starting point for employment density calculations, following the application of standard site hectare to floorspace conversions for various use employment use classes.
- 8.31 Figure 8.4 below provides an assessment of child yield arising from the proposed Local Plan housing sites. Some of the numbers in the figure are highlighted in blue which indicate higher child yield rates, linked to sites with higher levels of family housing. It is general practice to link new early years provision to new primary schools where there is capacity to do so. Further discussions are required with ECC over the exact location of early years provision linked to housing-led growth.
- 8.32 Figure 8.5 provides information on potential child yield demands arising from employment allocations. This would tend to indicate employment-led potential early year requirements at West Horndon / Dunton Hills and Brentwood Enterprise Park.

Figure 8.4: Local Plan Housing Sites: Potential Early Years and Child Yield

Allocation Ref	Site Name	Approximate Postcode	Typology Summary			Total	Early Years
			DU	F	H		
020	West Horndon Industrial Estates	CM13 3XL	50	40	110	200	12
021 / 152	West Horndon Industrial Estates	CM13 3XL	140	80	160	380	18
200	Dunton Hills Garden Village (200)	CM13 3LT	330	610	2560	3500	258
044 / 178	Land at Priests Lane, Brentwood	CM15 8BJ	0	0	95	95	9
186	Land at Crescent Drive, Shenfield	CM15 8DS	10	35	10	55	2
002	Brentwood railway station car park	CM14 5EZ	70	30	0	100	1
039	Westbury Road Car Park, Westbury Road, Brentwood	CM13 1AL	18	9	18	45	2
040	Chatham Way / Crown Street Car Park Brentwood	CM14 4BG	15	0	16	31	1
041	Land at Hunter House, Western Road, Brentwood	CM14 4SS	37	11	0	48	0
102	William Hunter Way	CM14 4SS	115	150	35	300	10
083	Land west of Warley Hill, Pastoral Way, Warley	CM14 5WF	6	12	22	40	3
003	Wates Way Industrial Estate, Ongar Road, Brentwood	CM15 9TB	60	20	0	80	1
010	Sow and Grow Nursery, Ongar Road, Pilgrims Hatch	CM15 9JH	20	0	18	38	2
023A & 23B	Land off Doddinghurst Road, either side of A12	CM15 9EY	30	0	170	200	15
034 / 235 / 087 / 276	Officer's Meadow, Alexander Lane / Chelmsford Road, Shenfield	CM13 1AG	90	20	400	510	37
263	Land east of Chelmsford Road, Shenfield	CM15 8SD	30	0	170	200	15
311	Eagle and Child Pub, Shenfield	CM15 8RG	6	14	0	20	1

158	Land north of A1023 Chelmsford Road, Shenfield	CM15 8SB	0	0	100	100	9
022	Land at Honeypot Lane, Brentwood	CM14 4QX	40	0	160	200	14
032	Land East of Nags Head Lane, Brentwood	CM14 5NL	10	10	105	125	10
081	Council Depot, The Drive, Warley	CM13 3BH	43	65	15	123	4
117A & 117B	Ford Headquarters, Warley	CM13 3BW	150	100	100	350	14
027	Land adjacent to Carmel, Mascalls Lane, Warley	CM14 5HX	0	0	9	9	1
079A	Land Adjacent to Ingatestone By-pass	CM4 0AL	0	16	41	57	4
128	Ingatestone Garden Centre, Roman Road	CM4 9AU	20	20	80	120	8
106	Site adjacent to Ingatestone Garden Centre (former A12 works site)	CM4 9AY	15	0	26	41	2
076	Land south of Redrose Lane, north of Orchard Piece, Blackmore	CM4 0SA	10	0	20	30	2
077	Land south of Redrose Lane, north of Orchard Piece, Blackmore	CM4 0QT	10	0	30	40	3
294	Chestnut Field, Blackmore Road	CM15 0DX	0	0	5	5	0
085B	Land adj Tipps Cross Community Hall, Blackmore Road	CM15 0DX	0	0	5	5	0
075B	Land off Stocks Lane, Kelvedon Hatch	CM15 0BN	5	0	25	30	2
194	Brizes Corner Field, Blackmore Road, Kelvedon Hatch	CM15 0AR	5	0	18	23	2
							463.0

Figure 8.5: Local Plan Housing Sites: Potential Early Years and Child Yield

Dunton Hills Employment Zone (200)	Pre-school Places Forecast (4 places per 100 employees)	Land adjacent to Ingatestone by-pass (part bounded by Roman Road) (079C)	Pre-school Places Forecast (4 places per 100 employees)	Childerditch Industrial Estate (112D and 112E (a))	Pre-school Places Forecast (4 places per 100 employees)	Brentwood Enterprise Park (Codham Hall Extension) (101C)	Pre-school Places Forecast (4 places per 100 employees)	Land at East Horndon (109 and 187)	Pre-school Places Forecast (4 places per 100 employees)	Land north of A1023, Shenfield	Pre-school Places Forecast (4 places per 100 employees)	Brentwood Enterprise Park (M25 Junction 29 works site)	Pre-school Places Forecast (4 places per 100 employees)
	38		17		23		2		30		12		97

Primary Schools

8.33 A collaborative approach has been undertaken with Essex County Council to understand the strategic implications of the Local Plan housing sites on new primary school provision using the latest available information.⁷ The key findings from this analysis are detailed below in Figure 8.6. It should be noted that these are forecasts only and the information is likely to change as further certainty over developments is obtained (including typology) and demographics are updated. The overall surplus / deficit takes into consideration new forecasting variables and predicted pupil yield.

Figure 8.6: Primary School Requirements

Primary Planning Group	Pupils from Housing	Overall Surplus / Deficit (new forecasting)	School Options	Site Requirements	Additional Requirements
Group 01 (Brentwood Town)	584	-2.1 form entry	Current planned expansion of Warley Primary by 1 form entry (fe) (Scheduled to open 2019). Additional new 2 form entry (fe) primary school also required – most significant pupil demand falls within Long Ridings Primary priority admissions areas. Option to pursue new primary school within Officer's Meadow development / area.	Minimum site requirement for new primary school = 2.1ha	New primary school to include 56 place early years and childcare facilities. Schedule to open school by 2024.
Group 02 (Ingatestone / Mountnessing)	49	-0.4 form entry	Prudent to plan for 0.5 fe expansion.	Exact site requirements to be confirmed.	Schedule to open extension by 2020.
Group 03 (Doddinghurst / Kelvedon Hatch)	42	-0.4 form entry	Prudent to plan for 0.5 fe expansion	Exact site requirements to be confirmed.	Schedule to open extension by 2021

⁷ Including currently unpublished forecasts and planning permission data to 31st March 2018.

No Group (West Horndon)	959	-4.8 form entry	Currently planned expansion of West Horndon Primary by 0.5 fe (scheduled to open in 2019) Three new 2 fe primary schools required as part of Dunton Hills Garden Village development. This will build sufficient capacity for accommodating demand to 3,500 and with further expansion options to accommodate demand to 4200 units.	Three sites of 2.1ha (minimum requirement)	Each new primary school to include 56 place early years and childcare facilities. Scheduled school openings – 2023, 2028 and 2033. Special Education Needs provision may also be required on Dunton Hills Garden Village.
Early Years			In addition to early years facilities attached to new primary schools, additional stand-alone settings are likely to be required.	Exact quantities and site requirements to be confirmed.	

Secondary Schools

8.34 Overall the proposed housing allocations in the Local Plan produce a secondary school pupil yield of circa 1,089 across the Borough, which is equivalent to 7.3 fe (150 pupils a form). In Figure 8.7, this is broken down broadly into the secondary priority admissions areas.⁸ The sites at West Horndon and the proposed Dunton Hills Garden Village have been shown under one heading. As with the primary school information, it should be noted that these are forecasts only and the information is likely to change as further certainty over developments is obtained (including typology) and demographics are updated. The overall surplus / deficit takes into consideration new forecasting variables and predicted pupil yield. It can be noted from the figure that there is a small excess demand for pupil places forecast at the Anglo European School

⁸ Excludes Brentwood Ursuline Convent High School as it serves a wide area with specific admission requirements.

and the total pupil yield arising from West Horndon / Dunton Hills equates to circa 4.3 fe (Dunton Hills tested at 3,500 dwelling level). The Brentwood / Shenfield secondary schools appear to cope with the level of growth proposed. On first assessment, the 4.3fe of need may struggle to gain the critical mass for a new secondary school, however with the proposed developments on the edge of Basildon this should generate around a further form of entry demand. It is also likely that a new secondary school will attract in other pupils already living in West Horndon and north of the A127. The findings indicate the need to plan for a new 900 form entry secondary school at Dunton Hills Garden Village.

Figure 8.7: Secondary School Requirements

Secondary Priority Admissions Area	Pupils from Housing	Overall Surplus / Deficit (new forecasting)	School Options	Site Requirements	Additional Requirements
Anglo European	33	-0.3 fe	<p>The school sets its own admission standards.</p> <p>There are options to manage any small forecast in any resultant additional need from local developments through bulge classes.</p> <p>Pupil space may be underestimated as the school is set to benefit shortly from a small quantity of s.106 funding.</p>	No new housing led space requirements identified.	None detailed.
Brentwood County High	174	+0.1 fe	Cope with level of proposed growth.	None detailed.	None detailed.
Brentwood Five Parishes / Becket Keys	28	+ 0.6 fe	Cope with level of proposed growth.	None detailed.	None detailed.
Shenfield High	213	0.0 fe	Cope with level of proposed growth.	None detailed.	None detailed.
St. Martin's	2	1.3 fe	Forecasts for St. Martin's can vary but little housing promoted with priority admissions	None detailed.	None detailed.

			area. Any deficit in need may be met through Basic Need rather than funding arising from development.		
West Horndon Total (West Horndon / Dunton Hills)	639	-4.3 fe	Pupils yield from Dunton Hills / West Horndon likely to yield the equivalent of 4.3 fe pupil demand. Additional local demand may be equivalent to minimum of 1 fe of need (Basildon extensions, existing pupils within West Horndon and potential demand north of A127). Prudent to plan on the basis of 6 fe (900 pupils) new secondary school.	7.9 ha (minimum requirement)	Schedule to open school 2026. Special educational needs provision may also be required on Dunton Hills Garden Village.

Special Education Needs

8.35 According to the Department for Education⁹, across all schools the number of pupils with special education needs has fallen to about 14.4%, with special educational needs classified as:

- Special Education Need Support – extra or different help from that provided as part of the school’s usual curriculum, and
- Statement of special educational needs or Education, Health and Care (EHC) Plan – a pupil has a statement or plan when a formal assessment has been made.

About 2.8% of the pupil population has a statement or EHC plan.

8.36 It is rational to forecast that a proportion of new pupils arising from new housing development may need special educational needs support. This could be delivered within both non-specialist and specialist schools depending upon the nature of the educational needs. In stakeholder discussions, the Endeavour School has explicitly indicated the need to support older pupils in education with specialists 6th form facilities. This position is supported by the specialist SEN team at ECC. Importantly

⁹ Department for Education / National Statistics – Special Educational Needs in England January 2016 – information to update.

there will also be a need to plan for primary and secondary school SEN provision as part of the Dunton Hills Garden Village. Discussions will also need to take place with West Horndon Primary school how also have a current specialism in SEN support.

FINANCIAL IMPLICATIONS

- 8.37 The indicative school infrastructure costs are detailed further in Part B of the IDP but are summarised below in Figure 8.8. Please note that these figures exclude land and site preparation costs.

Figure 8.8: Indicative School Infrastructure Costs

Area	Project	Cost	Notes
Brentwood / Shenfield (Grp 1)	Expand Warley Primary by 1fe	£1.9m	Funded by s.106 and Basic Need Funding
	New primary school	£7.5m	On Officer's Meadow subject to s.106 funding
Ingatestone & Mountnessing (Grp 2)	Additional 0.5 fe primary school capacity	£1.6m	Figures based upon standard 'expansion' multiplier of £15,281 per place
Doddinghurst / Kelvedon Hatch (Grp 3)	Minor expansion of primary school capacity	£535,000	Figures based upon standard 'expansion' multiplier of £15,281 per place
West Horndon (Grp 4)	Expand West Horndon Primary by 0.5 fe	£1.1m	Funded from Basic Needs Funding.
Dunton Hills Garden Village	3 x 2 fe primary schools	£22.5m	Allows for expansion up to 4200 houses.
	New 6 fe secondary school	£20.2m	Includes land but excludes costs of post 16 provision
Total		£55.34m	

09 SOCIAL AND COMMUNITY

To Insert

OVERVIEW

9.1 This chapter covers a wide range of services and facilities under the broad umbrella of 'social and community'. It is not an exhaustive list of topics but covers:

- social infrastructure, including voluntary and community sector (VCS) organisations and support organisations;
- social services directed at supporting adults, families and children, and
- community facilities – community centres, village halls, parish rooms / remembrance halls, libraries and cemeteries, graveyards and crematoria, and
- rural services and facilities.

The 'softer' side of infrastructure is often taken for granted or overlooked but is essential for successful communities. The NPPF places a strong focus upon community facilities and services including those for rural areas (para 83d and 84) and supporting healthy and safe communities (numerous references under section 8)

Social Infrastructure

9.2 Brentwood is fortunate in having a vibrant voluntary and community sector, which is supported by Brentwood CVS (BCVS) and other organisations. The CVS has over 100 members, with a full list of organisations available on its website.¹ The core activities of the BCVS include:

- Assisting new groups to set up including charity registration.
- Database of local groups – their aims and services/abilities they provide.
- Library information.
- Advice and information on fundraising. Grant finder is available to all groups to enable them to target appropriate Charitable Trusts, thereby increasing their chances of a successful funding application.
- Newslink – Bi-monthly newsletter offering group news, publicity, up-to-date changes in legislation, training, funding and voluntary opportunities.

¹ <http://www.brentwoodcvs.org.uk/category/members/>

- Representation. Through effective networking CVS is able to represent the views and concerns of the local voluntary organisations to other agencies.
- Training. CVS organises training programmes at a nominal cost to participants and can respond to recognised needs within the local voluntary sector.
- Volunteer recruitment. The CVS has information on the volunteer requirement of local groups.²

Volunteer opportunities are also provided through Volunteer Essex and the CVS is also promoting a local 'timebank', in which people and organisations 'deposit' in the bank by providing for example practical help and support to others and 'withdraw' support when they themselves are in need.

9.3 Brentwood Borough Council also has an active Volunteering Strategy³, which recognises the integral role volunteers play in our communities, by promoting and contributing to community cohesion and peoples' lives. Key aspects of the strategy include:

- Supporting the positive promotion of volunteering across the Borough by raising the profile of volunteers and volunteering involving organisations – action include launching a compact, working with Brentwood CVS on key projects and helping promoting local volunteering opportunities with local voluntary and community groups.
- Supporting Brentwood Borough Council staff to undertake volunteering opportunities.
- Ensuring that volunteers are an integral part of the Council's service delivery, including promoting volunteering across the Council and opportunities such as Countryside Volunteers, Environmental Action Days and community event stewarding.

9.4 The Brentwood Borough includes nine parish councils who play an active role in local affairs and supporting and delivering local facilities and services⁴. The Council has engaged in discussions with parish councils during the early formative stages of the Local Plan and IDP and key issues identified included⁵:

- pressures on local primary schools and health facilities;
- reductions and changes to bus transport;
- traffic speeds through villages, and
- loss of local shops.

² Information cited on BCVS website

³ Brentwood Borough Council Volunteering Strategy 2016-2019

⁴ Blackmore, Hook End & Wyatts Green, Doddinghurst, Herongate & Ingrave, Ingatestone & Fryerning, Kelvedon Hatch, Mountnessing, Navestock,, Stondon Massey, West Horndon

⁵ Reference event required

9.5 The local area is well served by churches, which are part of strong faith-based communities across Brentwood and beyond. Brentwood also has a relatively high number of faith-based schools, which are major components of the local community.

Social Services

9.6 The Care Act includes a legal duty to promote the integration of health and social care where the local authority considers that integration of services would either promote the wellbeing of adults with care and support needs (including carers), contribute to the prevention or delay of developing care needs, or improve the quality of care in the local authority's area. For the purposes of the Care Act, housing is considered a health-related service.

9.7 The demographic analysis as detailed in the Market Position Statement (MPS) on social care indicates that there is currently 286,600 older people living in Essex and that the population aged 65+ is projected to increase 25% to 357,400 by 2024. There is also likely to be a particular increase in the older age groups with a 22% increase in people 85-89 and a 33% increase predicted in people aged 90+.⁶

9.8 The Key figures for the Brentwood Borough area are detailed below:

- 19% increase in the population aged 65+ from 2014 to 2025;
- 10% of older people affected by income deprivation;
- Just over 30% projected increase in the percentage of population growth aged 70-74;
- About 4,190 people over 65 years (27%) with care needs
- In 2014 there was approximately 1,230 people living with dementia in Brentwood, predicted to rise to 1,330 (8% increase from 2014) in 2019, 1,480 (20% increase from 2014) and 1,930 (57% increase from 2014).

9.9 In Brentwood, while the growth in the ageing population and potential challenges in delivering specialist support and care is important and forecast to grow considerably, the rates of growth are considered modest compared with many other parts of Essex. There are particular challenges in parts of Essex, such as Tendring, Castle Point and Maldon, which have historically had a large older population, particularly coastal areas which attract retirees.

9.10 The strategic and legislative framework for social care is set nationally with local strategies and initiatives developed to interpret national strategy and reflect local priorities. The Care Act 2014 has integrated the provision of social care and health services for the benefit of the client. Health and social care providers in Essex are increasingly seeking to join up their efforts into integrated pathways which provide a

⁶ NHS and Essex County Council – Shaping Futures Market Position Statement – Designing Services for the Future 2015-2025.

consistent service for citizens and make best use of resources. Essex County Council has appointed Integrated Commissioning Directors to work with each of the five local Clinical Commissioning Groups (CCGs) to join up services.

- 9.11 Essex County Council delivers a range of social services, which can broadly be broken down into care for children and adult social services. Key aspects of children’s social care include:
- Protecting vulnerable children, family advice and work relating to children placed in foster care, adoption services and residential accommodation.
 - Working with the Youth Offending Service to help young people in trouble with the law.
 - Providing practical and emotional support to young carers.
 - Supporting children and young people with disabilities.
 - Health and well-being services for children and young adults.
- 9.12 The Essex Children and Young People’s Strategic Plan outlines six overall ‘system’ objectives, which includes protecting the most vulnerable children and reducing the social, educational and health inequalities gaps.⁷ There is also a focus in the strategy on promoting more self-reliance in families and a subsequent reduction in reliance on the state. The final three objectives centre upon making the most of resources, assets and workforces.
- 9.13 Youth work in Essex is delivered through a range of informal learning and personal development services that fulfil a number of statutory obligations as well as providing personal development opportunities. Access to good quality youth services is vital in ensuring strong community cohesion and can ultimately contribute to the success of a development and the area’s economic well-being. The Service works mainly with young people between the ages of 13-19. It works alongside schools and other partners to:
- Provide access to advice and guidance;
 - Deliver targeted support to those at risk of not progressing;
 - Support volunteering and community development;
 - Provide access to personal and social development programmes;
 - Support young people to have a voice and active involvement in their communities.

Services are delivered from ‘youth hubs’, satellite centres, community buildings, mobile units and outdoor spaces where young people gather. Critical to the work is involving partners, particularly young people, who are fully involved in service design, delivery, governance and evaluation of our services.

⁷ Essex County Council - Children and Young People in Essex – Strategic Plan 2016 onwards

- 9.14 Personalisation is a top priority element of emerging markets for social care over the coming years and presents wide ranging opportunities for new service offers from infrastructure and technology, online home banking and accounting support, through to menus of care itself to ensure that service users and their carers can transparently buy and monitor their own packages of care and top up care as needed. Approximately 32,000 people receive social care services in Essex over the course of a year and at any one time 17,566 of those 32,000 were adults aged 65+ and this proportion is set to increase.
- 9.15 There is a significant link between areas of deprivation and the volumes of people accessing services – until the age of 65 – when the correlation (across the UK) becomes less significant and we can assume therefore more age group specific. Investment in early intervention and prevention of falls, for example, reduces the ongoing and lengthy cost of a hospital stay and aftercare. Prevention is a key focus for our service moving forward. Older children leaving care are a high-risk customer group. In earlier years, the average cost of an excluded child over a lifetime to society has been quantified as £638,511* and these children are at high risk of becoming dependent young offenders as they move out of care. The nationally predicted age spike (a decent quality of life beyond 80s/90s) in the population will appear in Essex. Whilst people are not coming into services any earlier, they are living (and hence staying) in need and in services for longer – real terms volume and general demand for social care will increase over the next 10 years.
- 9.16 With regards to adult social care, key work areas include:
- Cross-over services on health, safety and well-being.
 - Adult carer support.
 - Signposting for support on money, legal help, work and learning.
 - Care and health support in older age.
 - Blue badges

Community Facilities

- 9.17 Local facilities, such as parish, village and neighbourhood halls provide for a range of community and cultural activities, such as play groups, clubs, social activities and public meeting space. The Borough has a vibrant community arts sector, including over 70 organisations and societies who deliver high quality events throughout the year.
- 9.18 As noted above with regard to more rural areas, the NPPF also indicates that local plans should promote the retention and development of local services and community facilities in villages, such as local shops, meeting places, sports venues, cultural buildings, public houses and places of worship.

Rural Services and Facilities

- 9.19 Approximately 72% of Essex County is rural in nature⁸, with 89% of Brentwood Borough within London's Metropolitan Green Belt. Although the County is located within close proximity to London and is home to major motorway infrastructure, two airports (Stansted and Southend) and two international ports (Harwich and Tilbury), there are particular challenges to supporting the rural economy and local services, which are shared with many other rural parts of the UK.
- 9.20 In August 2015, the Department for Environment, Food and Rural Affairs published its 10-point plan for boosting productivity in rural areas.⁹ Key themes in the plan include supporting:
- extensive, fast and reliable broadband services;
 - high quality, widely available mobile communications;
 - modern transport connections;
 - access to high quality education and training;
 - expanded apprenticeships in rural areas;
 - enterprise zones in rural areas;
 - better regulation and improved planning for rural businesses;
 - more housing;
 - increased availability of affordable childcare, and
 - devolution of power
- 9.21 The Essex Rural Partnership was established in 2002 and brings together organisations in the public, private and voluntary sectors to co-ordinate action on the major economic, social and environmental issues facing rural Essex. The key aims of the partnership include:
- Prosperity – building a dynamic and sustainable rural economy, where businesses and communities are mutually supportive, and where all the aspects and benefits of rural Essex are actively promoted to encourage investment;
 - Well-being – to enable everyone in Essex to enjoy the rich and diverse environment, and support rural residents to live well and access health services when they need them;
 - Connection – to support the development of rural broadband and rural transport, while championing rural networks and facilities;

⁸ Essex Rural Partnership – Respecting our Past, Embracing our Future: A Strategy for Rural Essex (2016-2020)

⁹ Department for Environment and Rural Affairs – Towards a one nation economy: A 10 point plan for boosting productivity in rural areas – August 2015

- Innovation – to promote new approaches to service access and delivery for rural communities, with a focus on mobilising community assets.

9.22 The partnership has a strong record of progress and has been successful in securing membership of the Defra Rural and Farming Network; helping initiate LEADER funding activity in Essex; representing rural interests and hosting visits; the production of a woodland strategy and undertaking a county-wide audit of rural service provision.

9.23 A summary of the key partnership priorities for 2016-2020 are detailed below in Figure 9.1, together with infrastructure themes arising. From this figure, it can be noted that rural strategy issues are wide ranging and cut across a number of local plan and core infrastructure priorities.

Figure 9.1 Rural Strategy Priorities

Priority Reference	Detail	Local Plan Themes	Infrastructure Priorities
	Harnessing the potential of our rural economy		
1 a	We will continue to provide both support and challenge to the superfast broadband programme to help address inadequate broadband and mobile connectivity – in particular, we expect to see the Rural Challenge pilot looking to reach out to other parts in rural Essex	Social and Community Infrastructure / Economic Prosperity	Broadband and Mobile Telecommunications
1b	We have also become increasingly aware of the limited information that we have about our rural economy, and will be working with partners to address this, as we develop our new evidence material.	Economic Prosperity	
1c	We will seek to maximise the benefits of programmes and projects which encourage economic growth and job creation. We will also identify, support and where appropriate lead on, opportunities to bring forward new programmes to Essex.	Economic Prosperity	
1d	We will work with partners to remove barriers to diversification for land-based businesses.	Economic Prosperity	
1e	We will encourage use of redundant buildings, especially those with historic merit, and we will explore the potential for under-utilised and redundant buildings to be adapted to support rural development.	Economic Prosperity / Environmental Protection and Enhancement	Heritage
	Education and Skills for Life		
2a	We will engage with Government to ensure it delivers in Essex on its pledge to increase apprenticeships in rural areas to support food, farming and small tourism businesses, and support high quality apprenticeships in our communities.	Economic Prosperity	
2b	We will engage with local authorities and academy providers to ensure the long-term future of rural schools.	Social and Community Infrastructure	Education
	Farming for the Future		
3a	We will help to promote and develop a food and farming sector that is resilient to global commodity price fluctuations by creating a dynamic and forward looking business environment and infrastructure.	Sustainable Communities Economic Prosperity	

3b	We will support the food and farming sector to meet the challenges of climate change by exploring approaches that either protect against the negative impacts or enhance the positive aspects of climate change.	Sustainable Communities Environmental Protection and Enhancement / Physical Infrastructure / Green Infrastructure	Water and Drainage Green Corridors
3c	We will encourage developments that support and enhance the food supply chains across the county to help integrate local food production with the wider Essex population.	Sustainable Communities	Allotments
Attracting Visitors to Rural Essex			
4a	We will facilitate sustainable tourism development.	Economic Prosperity	
4b	We will work with Visit Essex and local partners to promote rural Essex, package the tourism offer and give it an identity.	Economic Prosperity	
4c	We will support the development of the England Coast Path in Essex.	Economic Prosperity	
Celebrating Our Culture and Heritage			
5a	We will continue to work with partners on creative approaches to ensuring our historic buildings remain at the heart of rural communities, for example, in the use of church spaces for community groups and shops.	Environmental Protection and Enhancement / Social and Community Infrastructure	Heritage
5b	We will develop closer links to national bodies to ensure their programmes are aware of and engaged with issues and opportunities in rural Essex.	Duty to Cooperate	
5c	We will assist in promoting our heritage to a wider audience.	Environmental Protection and Enhancement / Social and Community Infrastructure	Heritage
Securing a Place to Live			
6a	We believe that the shortage of affordable housing in rural areas can only be addressed if a range of housing types and tenures, including provision of housing for rent, can be made more widely available.	Sustainable Communities	
6b	We believe that provision of affordable housing should be guided by up to date evidence of local need and should prioritise meeting the needs of local residents.	Sustainable Communities	
6c	We recognise the importance of the Rural Housing Enabler service but in view of the changing strategic context would encourage providers that support the service to explore new approaches to delivering affordable homes.	Sustainable Communities	
Accessing the Services We Need			
7a	We will encourage the development of effective rural proofing processes for use by local service providers.	Duty to Co-operate	
7b	We will support initiatives that improve access to health care, support independent living and reduce isolation and loneliness in rural areas.	Social and Community Infrastructure	Health Outreach services Social Services
7c	We will encourage the development of innovative and sustainable transport solutions, which are responsive to the needs of dispersed rural populations.	Transport and Accessibility	Transport
7d	We will ensure that support is available to facilitate community enterprise and other	Economic Prosperity	Infrastructure Partnerships and Delivery

	initiatives that strengthen the provision of essential local services.		
7e	We will encourage non-commercial solutions to providing the transport that is necessary to reach essential and valued services.	Transport and Accessibility	Transport Infrastructure Partnerships and Delivery
	Thriving and Pro-active Communities		
8a	We will encourage initiatives that promote leadership from parish and town councils and local voluntary organisations.	Sustainable Communities	Infrastructure Partnerships and Delivery
8b	We will encourage the devolution of responsibilities to local communities in appropriate circumstances.	Sustainable Communities	Infrastructure Partnerships and Delivery
8c	We will promote the benefits of Neighbourhood Planning and other measures that give communities greater influence over their future development.	Sustainable Communities	Infrastructure Partnerships and Delivery
8d	We will support those who give of their time to keep community facilities available for those who live and work in rural areas.	Sustainable Communities	Infrastructure Partnerships and Delivery
8e	We will encourage de-regulation to reduce barriers to volunteering.	Sustainable Communities	Infrastructure Partnerships and Delivery
	Feeling Safe and Reducing Crime		
9a	We will encourage the Police and Crime Commissioner for Essex and Essex Police to support community safety initiatives that address the specific needs of rural communities and businesses.	Social and Community Infrastructure	Emergency Services
9b	We will support communities in taking local action to make their homes and environments safer.	Physical Infrastructure	Emergency Services
9c	We will support initiatives which bring benefits to rural areas.	Sustainable Communities	
9d	We will work with other partners to ensure our residents feel safe. This will include Essex Trading Standards and Essex Civil Protection and Emergency Management.	Social and Community Infrastructure	Emergency Services
	Protecting and Promoting Our Natural Environment		
10a	We will use our influence with Defra and DECC to ensure the voice of Landowners – as ‘custodians of our landscape’ is represented, and funding mechanisms do not have unintended impacts upon Rural Essex.	Environmental Protection and Enhancement	Ecological Assets Green Corridors
10b	We need to interact fully with organisations such as EPOA (Essex Planning Officers Association) and statutory bodies (e.g. Environment Agency and Natural England) and the local environmental bodies (like Essex Wildlife Trust, the National Trust and the RSPB) at a strategic/national level.	Duty to Co-operate	Infrastructure Partnerships and Delivery
10c	We need to ensure that the Essex Rural Partnership continues to be both ‘Champion’ of the rural economy, environment and society, extending our membership to those organisations/decision makers whose actions impact directly upon the environment.	Duty to Co-operate	Infrastructure Partnerships and Delivery
10d	We will support initiatives that record and protect the unique biodiversity found in rural Essex, and which enable this to add	Environmental Protection and Enhancement / Green Infrastructure	Ecological Assets

	value to tourism and benefit economic prosperity.		
10e	We will engage with Natural England and the designated Areas of Outstanding Natural Beauty (AONBs) in our county to ensure that ongoing boundary reviews are to the benefit of rural Essex.	Environmental Protection and Enhancement	

EXISTING INFRASTRUCTURE, GAPS AND PROGRAMMES

Social Infrastructure

- 9.24 The Brentwood CVS website provides an initial overview of the range of local groups, charities and organisations which are members of the CVS. Figure 9.2 below provides summary information and a basic classification of the organisations by type of activity. The range of organisations is only a small percentage of the overall social infrastructure - a full audit is outside the scope of this study.

Figure 9.2: Local Groups, Charities and Community Organisations

Organisation (by principal activity)	% of Total Memberships
Animal support	2%
Arts and Culture	7%
Disability Focused	24%
Education / Spiritual	7%
Health / Care	19%
Housing / Accommodation	5%
Sport	8%
Support / Advice	26%
Other	2%
Total	100%

Social Services

- 9.25 The key social services / facilities activities which operate within the Brentwood Borough area are listed below in Figure 9.3.

Figure 9.3: Social Services – Key Activities in Brentwood Borough

Type of Service / Facility	Activities	Locations
Family Support		
Larchwood Gardens Child and Family Wellbeing Hub	Integrated children and family services (health, care and support). Partners: ECC, Barnardo's and Virgin Care.	Larchwood Primary Larchwood Gardens Pilgrim's Hatch CM15 9NG
Young Carers Support	Young carers club for carers aged 8-19 years	Brentwood Crossroads 51 Tallon Road Hutton, Brentwood Essex CM13 1TG
Youth Services		
Local Youth Service	Offers a range of services for young people aged 13-19 (and up to 25 with additional learning needs). Also operates as a music venue with recording studio.	The Hermit, Shenfield Road, Brentwood, CM15 8AG

9.26 Information on senior housing within the Borough is summarised below in Figure 9.4 and has been obtained from the housing care website.¹⁰

Figure 9.4: Senior Housing within Brentwood Borough

Name of Accommodation	Broad Location	Types of Facilities	Management / Ownership	Tenure	Dwellings	Number of Rooms	Additional care Info
Almshouses	South Weald	Age exclusive housing	Management - Browne and Wingrave Almshouse Charities	Rent (social landlord)	12		
Ardtully Retirement Residence	Ingatestone	Care Home	Ownership - Amba Care Homes Group			18 single rooms and 4 shared rooms (22 en suite). 26 residents in total	Enhanced Sheltered / Extra Care / Close Care
Aspen Court	Brentwood	Age exclusive housing	Management - London & Quadrant Housing Trust	Rent (social landlord)	11		

¹⁰ <http://www.housingcare.org/residential-care-homes/area-2-brentwood.aspx>

Beech Spinney	Warley Hill	Retirement / sheltered housing	Managed by: Retirement Lease Housing Association	Leasehold	28		
Berman's Close	Hutton	Retirement / sheltered housing	Managed by: William Berman's Trust	Rent (social landlord)	12		
Bishops Hall / The Retreat	Brentwood	Retirement / sheltered housing	Managed by: Brentwood Borough Council	Rent (social landlord)	35		
Brentwood Care Centre	Pilgrims Hatch	Care Home, Care home with nursing	Owned by: Ranc Care Homes Ltd			112 single rooms (112 en suite)	Enhanced Sheltered / Extra Care / Close Care
Brickstock Furze	Shenfield	Retirement / sheltered housing	Managed by: HML Ashton Chater	Leasehold	20		
Brook field Close	Hutton	Retirement / sheltered housing	Managed by: Brentwood Borough Council	Rent (social landlord)	25		
Brook House Care Home	Brentwood	Care Home	Owned by: Larchwood Care			5 8 single and 6 shared rooms (64 ensuite) - 70 residents in total	Enhanced Sheltered / Extra Care / Close Care
Chichester House	Brentwood	Retirement / sheltered housing	Managed by: Brentwood Borough Council	Rent (social landlord)	41		
Danbury Close	Pilgrims Hatch	Retirement / sheltered housing	Managed by: Brentwood Borough Council	Rent (social landlord)	47		
Douglas Matthew House	Brentwood Town	Retirement / sheltered housing	Managed by: Anchor	Rent (social landlord)	69		
Dudbrook Hall	Kelvedon Common	Care Home	Owned by: St Michaels Homes			43 residents in 31 single and 3 shared rooms (18 en suite).	Enhanced Sheltered / Extra Care / Close Care

Harewood Road	Brentwood	Retirement / sheltered housing	Managed by: Brentwood Borough Council	Rent (social landlord)	50		
Hedgerows Nursing Home	Brentwood	Care home with nursing	Owned by: Outlook Care			36 residents	Enhanced Sheltered / Extra Care / Close care
Heron Court	Herongate	Care Home	Owned by: Runwood Homes plc			35 residents in 31 single and 2 shared rooms (18 en suite).	Enhanced Sheltered / Extra Care / Close care
Hibbard House	Brentwood	Age exclusive housing	Brentwood Housing Trust	Rent (social landlord)	6		
Homehurst House	Brentwood	Retirement / sheltered housing	Managed by: FirstPort	Leasehold	59		
Howie Cottages	Brentwood	Age exclusive housing	Managed by: Stonewater	Rent (social landlord)	4		
Hutton Village Care Home	Hutton	Care home with nursing	Owned by: BUPA Care Homes			40 residents in 40 single rooms (40 en suite).	Enhanced Sheltered / Extra Care / Close care
Ingleton House	Ingatestone & Fryerning	Retirement / sheltered housing	Managed by: Brentwood Borough Council	Rent (social landlord)	25		
Juniper Court and Coronation Cottages	Brentwood	Retirement / sheltered housing	Managed by: Brentwood Borough Council	Rent (social landlord)	30		
Leonard Lodge Care Home	Hutton	Care home with nursing	Owned by: Barchester Healthcare Ltd			60 residents in 60 single rooms (60 en suite)	Enhanced Sheltered / Extra Care / Close care
Montbazon Court	Brentwood	Extra care housing	Managed by: L&Q Living	Rent (social landlord)	26		
Old Shenfield Place	Shenfield	Care Home, Care home with nursing	Owned by: Amba Care Homes Group			31 residents in 21 single and 5 shared rooms (20 en suite).	Enhanced Sheltered / Extra Care / Close care

Primrose Court	Brentwood	Retirement / sheltered housing	Managed by: Orbit Housing Association	Leasehold	46		
Queenswood House	Brentwood	Retirement / sheltered housing	Managed by: Home Group Ltd	Leasehold	56		
Quennell Way	Hutton	Retirement / sheltered housing	Managed by: Brentwood Borough Council	Rent (social landlord)	29		
Ravenscourt	Brentwood	Retirement / sheltered housing	Managed by: Warwick Estates Property Management Ltd	Leasehold	46		
Roseberry Court	Hutton	Retirement / sheltered housing	Managed by: Genesis Housing Association	Rent (social landlord)	30		
Rowen Green	Brentwood	Retirement / sheltered housing	Managed by: Brentwood Borough Council	Rent (social landlord)	26		
Sawyers Court	Shenfield	Retirement / sheltered housing	Managed by: FirstPort	Leasehold	26		
Seton Unit	Warley	Care home	Sisters of Charity of St Vincent de Paul			8 residents in 8 single rooms (8 en suite)	Enhanced Sheltered / Extra Care / Close care
Seven Arches	Cornsland	Care home with nursing	Owned by: Brookvale Healthcare			30 residents in 30 single rooms (24 en suite).	Enhanced Sheltered / Extra Care / Close care
Signature The Beeches	Brentwood	Care home with nursing	Owned by: Signature Senior Lifestyle Limited			124 residents in 124 single rooms (124 en suite).	Enhanced Sheltered / Extra Care / Close care
Sir Francis Way	Kelvedon Hatch	Retirement / sheltered housing	Managed by: Brentwood Borough Council	Rent (social landlord)	9		

St. Georges Court	Brentwood	Retirement / sheltered housing / Extra care housing	Managed by: Brentwood Borough Council	Rent (social landlord)	55		Extra Care
St. Thomas Court	Brentwood	Retirement / sheltered housing	Managed by: Anchor	Rent (social landlord)	25		
Sycamore Court	Little Warley	Care home	Owned by: Holmes Care Group			39 residents in 39 single rooms (39 en suite).	Enhanced Sheltered / Close Care
Tara	Brentwood	Care home	Owned by: Mr & Mr Sookary			8 residents in 4 single and 3 shared rooms	Enhanced Sheltered / Extra Care / Close care
The Gables	Warley	Retirement / sheltered housing	Managed by: Brentwood Borough Council	Rent (social landlord)	38		
The Lawns	Warley	Retirement / sheltered housing	Managed by: Orbit Housing Association	Leasehold	44		
The Meads	Ingatstone & Fryerning	Retirement / sheltered housing	Managed by: Brentwood Borough Council	Rent (social landlord)	39		
The Squirrels Care Centre	Great Warley	Care home	Owned by: Larchwood Care			48 residents in 47 single and 1 shared rooms (44 en suite).	Enhanced Sheltered / Extra Care / Close Care
Victoria Court	Brentwood	Retirement / sheltered housing	Managed by: Brentwood Borough Council	Rent (social landlord)	35		
Winifred Dell House	Brentwood	Care home	Owned by: Excelcare			76 residents in 76 single rooms (76 en suite).	Enhanced Sheltered / Extra Care / Close Care
Total					1004		

Community Facilities

- 9.27 This section of the chapter provides baseline audit information on a wide range of community facilities, including community halls and centres, village halls, parish rooms / remembrance halls, libraries, cemeteries, graveyards and crematoria.
- 9.28 Brentwood Borough Council owns five community halls and has the head lease on one other facility. The six community halls are leased to Brentwood Leisure Trust (BLT). These are detailed below in Figure 9.5.

Figure 9.5: Community Halls¹¹

Community Hall	Description
Bishops Hall	An established community hall situated off Elizabeth Road, in Pilgrims Hatch, in a recently refurbished park. It can accommodate seated events for 100 - 130 people and 170 for discos. It has an adjacent garden area with car parking and parkland setting. It has a good-sized hall, kitchen facilities and plenty of toilets. It has been a target for Anti-Social Behaviour and vandalism. It is not an attractive building and anti-climb features add to this image.
Merrymeade House	An attractive building set in a central location in Brentwood Town Centre. It is mixed use with six seven rooms of varying sizes capable of accommodating from 20 - 40 people. A Buddhist Group is a tenant and operates a cafe on the premises. It is also shared by a housing association and residential lets so there needs to be care with any bookings to avoid noise issues. There is limited parking and Sawyers Hall has a number of schools which leads to peak time congestion in the immediate area. The tenants and limited size of accommodation do not allow for higher value social functions.
Hutton Poplars Hall	Set in Hutton Poplars, Hutton the historic building has 2 halls, a main hall with capacity for 150 seated and 200 standing and the Lansbury Suite for up to 60 people. Both are licensed for civil ceremonies and are popular for social events. Good parking, toilet facilities. Long standing and regular users including nursery. The historic nature of the building means that there are high maintenance costs.
Hutton Poplars Lodge	A small hall located in Hutton Poplars in Hutton with a maximum capacity of 40. It has an office, car parking and clubhouse/bar operated by a Bowling Club which uses the adjacent green in the summer. It is small and needs to be updated

¹¹ Information reproduced from 4 Global Study – Value for Money Review and Management Options Appraisal - Table 6.1 Summary of Community Halls – Feb 2017.

	and the use by the Bowling Club make it difficult to let.
Nightingale Centre	Purpose built venue located in Warley with a mixed-use hall for 100 - 130 people seated. It has a small kitchen, offices and car parking. The building is shared with SNAP who rent office space. It is busy and one of the more modern halls in the group. The shared car parking, and unauthorised commuter parking for Brentwood Station, limits availability of parking for hall users.
Willowbrook Hall	This was built within Willowbrook School in Hutton as a replacement for Hutton Parish Hall. Limited use was transferred from that venue. It has a capacity of 50-60 seated. The primary school site means that there are major operating restrictions and very limited parking. Willowbrook is owned by ECC and leased to BBC and then is sublet to BLT

9.29 In addition to the halls detailed above there is a community centre in Ingatestone (Ingatestone and Fryerning Community Club, 7 High Street, Ingatestone, CM4 9ED) and Hutton Community Centre, Harrison Close, Brentwood, CM13 1LP. Both facilities are well used by social / community groups.

9.30 In addition to the community halls and centres noted above, there is also a wide range of village halls, parish rooms and remembrance halls across the Borough. These are listed below in Figure 9.6.

Figure 9.6: Village Halls, Parish Rooms and Remembrance Halls

	Location	Type of Facility	Available for hire for the following activities / events
1	Blackmore, Hook End and Wyatts Green	Blackmore Village Hall, Nine Ashes Road	Wedding, Parties, Children's parties, Dinner Dances, Quiz nights Dance/fitness classe, adjoining sports and social club, outdoor facilities nearby
2	Doddinghurst	Doddinghurst Village Hall, Church Lane	Meetings, Private Events, Group Classes, Parties.
3	Herongate and Ingave	St Andrew's Church Hall, Herongate	Information not available
4	Ingatestone and Fryerning	Seymour Pavillion, New Road	Information not available
5	Kelvedon Hatch	Kelvedon Hatch Village Hall, School Road	Group Classes, Art Classes, Private Events

6	Mountnessing	Mountnessing Village Hall, Roman Road	Club meetings, wedding and other parties, dance classes and village activities
7	Navestock	Navestock Village Hall	Activities pertaining to village halls - clubs, wedding receptions, shows, local events, classes
8	Stondon Massey	Stondon Massey Village Hall, Ongar Road	The parish hall is maintained for use by local groups, clubs and individual hirers, which currently include, w.i, darts, art, pilates, dance, first responders, parish council and casual lettings for various purposes.
9	West Horndon	West Horndon Village Hall, Station Road	Dancing karate bridge keep fit friendship club under 5s play group art group baton twirlers l.a.y. womens w.i.
10	Shenfield	Shenfield Parish Hall, Hutton Road	the charity runs Shenfield parish hall for the benefit of the local community.
11	Brentwood	The Cathedral Parish Hall	Information not available
12	Brentwood	Willowbrook Hall, Brookfield Close	Conference, Meeting Rooms, Group Classes, Parties, Catering.
13	Hutton	Hutton Parish Hall, Rayleigh Road	w.i. table tennis history groups domino drives social evenings parties bridge exercise classes
14	Warley	Little Warley and Childerditch Village Hall, Magpie Lane	Raising funds to support the daily maintenance of the village hall for the benefit of the local community. organise events which is supported by the elderly, the disabled and local children who attend the kindergarten classes or may live in the village together with the villagers.
15	Pilgrims Hatch	Pilgrims Hatch Parish Room, Crow Green Road	Provides a small hall, heated and with toilet and kitchen facilities, for the use of small groups and clubs, and for private parties.
16	South Weald	South Weald Parish Hall, 85 London Road	Provides facilities for all ages in the brentwood , essex area. such facilities include fitness and dance classes,childrens groups, brownies, drama groups and childrens parties.

17	Tipps Cross	Tipps Cross Remembrance Hall	Activities include: pre-school, badminton, carpet bowls, aerobics, table tennis, croquet, senior citizens club, karate, childrens' dance ,disabled group post office, / pre school, table tennis, group classes
18	Brentwood	Willowbrook School Community Centre	Information not available
19	Brentwood	Knights Way Centre	Group Classes, Private Events

9.31 Brentwood Borough Council's Town Hall is currently undergoing a transformation to provide accessible office space for community and charitable organisations such as MIND and CAB, while the upper floor of the building is being converted into residential apartments. Essex Police located office functions to the Town hall in 2017.

9.32 The Library Service is statutory (1964 Public Libraries & Museums Act) and is required to provide a comprehensive and efficient service for all residents and persons working and studying in Essex. This statutory requirement is articulated by central Government through its inspection regime. Further information is found on the Department of Culture, Media and Sport website. The Library service has increasingly become a shared gateway to other services and also for accessing digital information and communications. The Library service reviews its community profiles for existing libraries on a regular basis.

9.33 Essex County Council is responsible for the network of libraries and mobile library services across the Borough. The main public libraries in the Borough are:

- Brentwood Library, New Road, Brentwood, CM14 4BP – open 5.5 days per week, the facility also features reading and story events for younger readers, various book groups (including an audio book group for blind and partially sighted people) and drop in sessions by Essex Sight for people who are blind or partially sighted.
- Ingatestone Library, High Street, Ingatestone, CM4 9EU – open 4 half days per week, the library also hosts events for younger readers, various book and reading groups, and a tea and talking books event.
- Shenfield Library, Hutton Road, Shenfield, Brentwood, CM15 8NJ – open 5 days per week and features events for younger readers, a 'knit and natter' group and various book groups.

9.34 The Borough is also served by a number of mobile library routes¹²:

¹² Information last reviewed 2017.

- Chelmsford Mobile Route Week 1 – Friday – Hutton, Ingrave, Brentwood, and
- Chelmsford Mobile Route Week 2 – Fortnightly visits Tuesday – Highwood, Tipps Cross, Hook End, Wyatts Green, Doddinghurst, Brentwood and Pilgrims Hatch.

9.35 Cemeteries, graveyards and crematoria is listed below in Figure 9.7. The table also includes some provisional information on whether the facility is closed or available for interments.

Figure 9.7: Cemeteries, Graveyards and Crematoria

London Road Cemetery	This cemetery is closed to new full interments (burials), only interments in pre-purchased grave spaces are accepted. There is a large area available for cremated remains interments. The chapel is not available for use.
Woodman Road Cemetery	Woodman Road Cemetery can accept both full burials and cremated remains interments. A small chapel is also available. *Please note that due to constant abuse, the toilets at Woodman Road Cemetery will only be available for use when funerals are taking place.
Lorne Road Cemetery, Warley	The oldest cemetery in the Borough and is now closed to full burials and has been given over to a nature reserve and is still open to visitors.
Essex Regiment Chapel, Clive Road, Brentwood	No information available.
St Mary's Churchyard, Hall Lane, Shenfield	No information available.
Herongate Wood - Green Burial Site, Billericay Road, Brentwood	Managed by in-house Funeral Directors, Adam & Greenwood. The facility offers a full range of services, both 'green' and traditional for burial, cremation or the burial of ashes. The facility currently has capacity to accept interments.
St. Mary the Virgin, Fryerning, Mill Green Road	No information available.
Priory Church of St Laurence, Church Street, Blackmore	No information available.
St Peters Church, Weald Road, Brentwood	No information available.
Bentley Crematorium and Cemetery, Ongar Road	Run by Dignity Funerals, Bentley Crematorium and Cemetery opened in October 2012 with a multi-faith chapel. The chapel can seat 100 mourners and is heated and air conditioned. For large congregations the waiting area can accommodate and additional 100 people standing. The crematorium also has access for the disabled, disabled toilets, a hearing loop and has a speaker system throughout the building. The facility currently has capacity to accept interments.
Pilgrims Hall, Christian Centre	No information available.
St. Edmund & Mary, Ingotstone Parish Church, High Street	No information available.

St. Mary the Virgin Parish Church, Hall Lane, Shenfield	No information available.
All Saints Church of England, Church Lane, Doddinghurst	Doddinghurst Parish Council manages the burial ground for the Village which is situated to the North West of All Saints Church. The Church's own burial grounds to the front and rear of the building are closed to new interments. The Burial Ground is managed as a "Lawned Cemetery" and the regulations relating to this type of Burial Ground are given below. The burial plots are double (depth) plots and the deed of grant is for 30 years. Following the meeting of the General Purpose Committee, held on 17th February 2014, it was agreed that a formal ashes lawn would be created alongside Ashes Plot 1, near the central pathway, (see burial ground layout), to enable residents to be able to scatter human ashes. The scattering of ashes is unrecorded and no fee applies. Expected to meet the needs of the village until 2025.
St Thomas of Canterbury Church, St. Thomas Road	No information available.
All Saints Church, Hutton Village	No information available.
St. Nicholas' Church, Church Road, Kelvedon Hatch	No information available.
St. Johns Mountnessing, Hall and Church, Old Church Lane, Padhams Green	No information available.
St. Nicholas Church, Brentwood Road, Ingrave, Brentwood	No information available.
St. Mary the Virgin, Great Warley Street, Brentwood	No information available.
St. Helens RC Cathedral, Ingrave Road	No information available
The Parish Church of Christ Church, Warley, Watley Hill, Brentwood	No information available
St Stephens Church, St. Stephen Close, Ingrave	No information available
All Saints & St. Faiths Church, Church Lane, Childerditch	No information available
St Georges's Church	No information available
Trinity Church, 49 Coxtie Green Road, Pilgrims Hatch	No information available
St Peter's Little Warley Church, Little Warley Hall Lane, Brentwood	No information available

The Gospel Hall	No information available
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IMPLICATIONS OF GROWTH

Dunton Hills Garden Village

9.36 Dunton Hills Garden Village is a unique opportunity to not only create a new settlement but also a new community. Much of the work of the Town and Country Planning Association (TCPA) has focused upon the need for garden towns / villages to establish and support a charitable trust or organisation to look after the development and its residents, funded through a service charge and potentially an endowment or set of income sustaining assets. Stewardship may include physical maintenance and improvement of the public realm, managing the public realm, and organising community activities.

9.37 The TCPA is explicit in stating that:

'The stewardship task goes beyond the management of green space to cover the broadest range of community assets, including the active and positive management of everything from arts provision to commercial estates and utility companies. Putting local people at the heart of this process can generate increased local support, creativity, and entrepreneurialism. For new garden villages of a smaller scale, approaches to stewardship may differ from that taken for a much larger community, and the economics make matters more challenging'.¹³

Dunton Hills is likely to require 'hard' community facilities but also effective resourcing to support the growth of a new community and support its sustainability both economically and socially. Community capacity building could be supported initially by existing networks and community structures.

9.38 There are also options within the garden village as part of the wider community infrastructure to develop a new community orientated building. Further options analysis will need to be undertaken and this could include a multipurpose building with public facing services, such as medical facilities, as well as space for multi-faith activities, recreation and estates services. The feasibility and operational value of various models will need to be explored with stakeholders.

¹³ <https://www.tcpa.org.uk/>

Social Care

- 9.39 Statistics from the JSNA indicates that there are 90,500 older people with social care needs who live in Essex.¹⁴ This equates to 35% of the older population over 65 years. There is a projected 22.8% increase in older people with care needs over the next five years which is higher than the anticipated 19.2% increase for England. Basildon and Brentwood have a rate of older people above the Essex average known to social care. Furthermore, due to the collective increase in individuals 56 years and older there will be a subsequent increase in the demand for care and support services for a population that will often experience poor health, dementia or disability in these extra years of life. Individuals currently using such services report their satisfaction to be below the regional and national level.
- 9.40 The Essex County Council Market Position Statement **on xxx**, which is updated at regular intervals, provides a picture of the County in terms of demand, supply and opportunity for a range of specialist housing. Specific needs identified include:
- **Older people:** Data analysis tells us that there are approximately 5,000 Essex residents who meet the criteria to access specialist housing with care that is being provided as an affordable housing option. This figure increases only slightly over the next 5 years. A proportion of these 5,000 residents will be best served by a form of specialist housing with care.
 - **Working age adults with disabilities:** There is an identified shortfall of around 270 units of supported accommodation of various types across the County.
 - **Mental health:** There is a need for blocks of 12 or so flats, with an on-site office, in a number of areas. In addition, there is a need for move-on accommodation of self-contained flats in general needs accommodation.
 - **Vulnerable people:** Support is currently provided to a range of vulnerable groups such as women fleeing domestic violence; homeless single people and families, older people and people with substance misuse problems.
- 9.41 Engagement work with local schools (primary, secondary and special education needs) as part of the Dunton Hills Garden Village scheme has highlighted opportunities to provide specialist or supported living housing for young adults with special education needs, including autism and the benefits that better integration with local communities can make for families and carers and the young adults themselves. This could form part of a wider supportive urban design and housing framework within the site masterplan for Dunton Hills. The opportunities to provide specialist housing is however not unique to new settlement planning.

Working Across Generations

- 9.42 Essex County Council estimate¹⁵ that for every 20 dwellings there will be a young person needing some youth work provision. The minimum size of development requiring a bespoke

¹⁴ NHS Basildon and Brentwood CCG – Essex Council Council 'Integrated Joint Strategic Needs Assessment (JSNA) 2014

¹⁵ Information from Guide to Developer Contributions - ECC

youth centre or dedicated youth space (catering for approximately 60 young people) is around 1200 houses. The capital cost of such a facility is estimated at about £700,000.

- 9.43 Most youth provision is, however, delivered through flexible community spaces. The need for developer contributions, thereby, needs to be considered on a case by case basis and in partnership with other services that may be delivered out of multi-functional community hubs.
- 9.44 In addition to community buildings there are a number of low cost ‘big win’ facilities that can be provided as part of new development of various sizes. Examples include (at current costs):
- Multi Sports Arena or Multi Use Games Area (MUGA) - costing around £40,000;
 - A basic skate park - costing around £35,000;
 - Youth shelters - costing around £10,000.
- 9.45 There are also opportunities to focus upon innovation in the delivery of facilities and services across generations. Much has been made recently in the media and care and housing circles of linking pre-school provision with care homes / retirement homes and the positive values that can be created for all age ranges.

Community Facilities¹⁶

- 9.46 Library services continue to be under pressure, with £1.9m costs cut in 2011 through reduced library opening hours and changes to the mobile library service. In 2016, Essex County Council announced that it would be using libraries to register births, marriages and deaths. For the 2016/17 financial year, the Council further reduced library spending by £593,000 and aims to save a further £594,000 in 2017/18.¹⁷
- 9.47 The Essex guideline for a new stand-alone library is that it should serve a discrete community of at least 7,000 people - very few developments apart from Dunton Hills will demand a library for itself so there is likely to be a need to ‘pool’ contributions. Where the increase in projected population more than doubles an existing library catchment area, it is likely that a new facility or building will be required: Provision of this space could be as part of a shared community or educational facility for example – and would allow consideration to be made for varying scales of development.
- 9.48 **BBC community assets review**

¹⁶ Information from Guide to Developer’s Contributions ECC

¹⁷ http://www.echo-news.co.uk/news/14215601.Merging_services_is_part_of_Essex_County_Council_s_money_saving_plan/?ref=mr&lp=20

FINANCIAL IMPLICATIONS

9.49 The key financial considerations from this chapter are detailed within Part B of the IDP.

10 HEALTH



OVERVIEW

10.1 For the purposes of the IDP, health services consist of the following:

- General Practitioner (GP) services;
- hospitals;
- ambulance services;
- public health and community healthcare;
- dentists;
- pharmacies, and
- opticians.

Social care is discussed under Chapter 12 of the IDP. This chapter is mainly concerned with non-private health infrastructure, although it is recognised that the Borough is served by a range of private health facilities.

Public Health Profile

10.2 Public Health England produce a series of public health profiles through its research observatory, with the last profile for the Brentwood Borough being produced in 2015¹. From this profile it can be noted that the health of people in Brentwood is generally better than the England average, with life expectancy for both men and women higher than the England average. Figure 10.1 below provides a snapshot of some public health headlines.

Figure 11.1 Public Health Headlines

¹ <http://www.apho.org.uk/resource/item.aspx?RID=50445> Information and figures taken from this profile and <http://fingertips.phe.org.uk/profile/health-profiles/data#page/1/gid/3007000/pat/6/par/E12000006/ati/101/are/E07000068>

Compared with benchmark ● Better ● Similar ● Worse ● Lower ● Similar ● Higher ○ Not Compared * a note is attached to the value, hover over to see more details

Recent trends: i (in development) - Could not be calculated ↑ Increasing / Getting worse ↑ Increasing / Getting better ↓ Decreasing / Getting worse ↓ Decreasing / Getting better → No significant change ↑ Increasing ↓ Decreasing

[Export table as image](#)



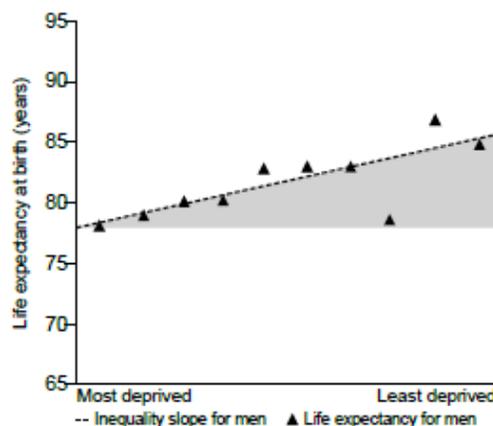
Indicator	Period	Brentwood			Region England		England			
		Recent Trend	Count	Value	Value	Value	Worst/Lowest	Range	Best/Highest	
Deprivation score (IMD 2015)	2015	-	-	9.9	-	21.8	42.0		5.0	
Children in low income families (under 16s)	2014	→	1,390	11.1%	16.5%	20.1%	39.2%		6.6%	
Statutory homelessness	2015/16	-	-	*	0.6*	0.9	-	Insufficient number of values for a spine chart		
GCSEs achieved (5A*-C inc. English & Maths)	2015/16	-	523	69.3%	57.9%	57.8%	44.8%		78.7%	
Violent crime (violence offences)	2015/16	↑	741	9.8	15.6	17.2	36.7		4.5	
Long term unemployment	2015	-	45	1.0	2.9	4.6	15.7		0.5	

10.3 It can be noted that deprivation is lower in Brentwood than the England average, however about 10.8% (almost 1,400) children as considered to live in low income families.

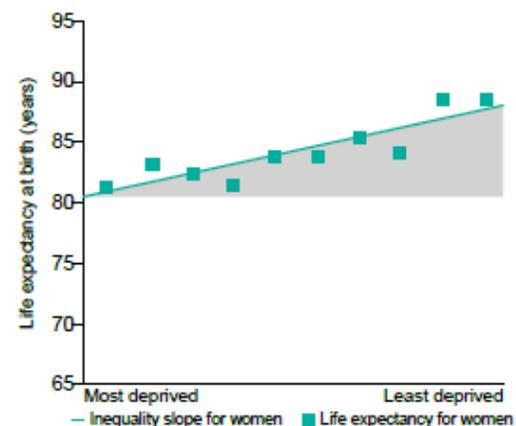
10.4 The life expectancy gap for men is 7.7 years between the most deprived areas or Brentwood and the least deprived. For women the gap is 7.5 years. This is illustrated below in Figure 10.2.

Figure 10.2 Life Expectancy

Life expectancy gap for men: 7.7 years



Life expectancy gap for women: 7.5 years



10.5 The rates of child and adult obesity is lower in Brentwood than the England average and the rates of alcohol-specific stays among under 18's and levels of teenage pregnancy are lower than the England averages. For adult health, the rates of self-

harm, smoking, sexually transmitted diseases, drug misuse, early deaths from cardiovascular disease and early deaths from cancer are all lower than the England average. The rates of physical activity of local people is also higher than the England average.

- 10.6 Local public health priorities include improving the health of older people, increasing vaccination coverage, and reducing cardiovascular disease by reducing the prevalence of obesity. Brentwood has a slightly higher proportion of over 65s compared to Essex county as a whole although a 17% increase is expected between 2015 and 2025 equating to 2,600 more people. This ageing population is likely to put greater demand on health, social care services and housing needs. ²
- 10.7 Census data on general health also indicates a relatively positive picture of the Brentwood population. With higher proportion of people within Brentwood reporting very good health than the regional and England comparative percentages. At the other end of the spectrum the District also had lower levels of residents, as a percentage, reporting fair health, bad health and very bad health, than those across the region and England as a whole. This information is detailed below in Figure 10.3. Further detailed information on the health needs within the Basildon and Brentwood CCG area is available through the Integrated Joint Strategic Needs Assessment (JSNA) 2014. ³

Figure 10.3: General Health

General Health (QS302EW)									
				Brentwood		East of England		England	
				Non-Metropolitan District	%	Region	%	Country	%
All Usual Residents	Count	Persons	Mar-11	73601		5846965		53012456	
Very Good Health	Count	Persons	Mar-11	37548	51.02	2761271	47.23	25005712	47.17
Good Health	Count	Persons	Mar-11	24537	33.34	2060157	35.24	18141457	34.22
Fair Health	Count	Persons	Mar-11	8565	11.64	752324	12.87	6954092	13.12
Bad Health	Count	Persons	Mar-11	2306	3.14	212830	3.64	2250446	4.25
Very Bad Health	Count	Persons	Mar-11	645	0.88	60383	1.03	660749	1.25
Total					100.02		100.01		100.01

² Information reproduced from Essex Local Authority Portraits – A Profile of People Living in Brentwood May 2016 Organisational Intelligence.

³ NHS Basildon and Brentwood CCG – Essex County Council 'Integrated Joint Strategic Needs Assessment (JSNA) 2014

National Planning Policy

- 10.8 The new NPPF places a strong emphasis upon the importance of supporting strong vibrant and healthy communities through the planning process and enabling and supporting healthy lifestyles, as well as the design of healthy places (para 8b, 91c and 122e). Strategic policies in local plans should make sufficient provision for community facilities, including health (para 20). There are also several linked public health themes in the NPPF connected with open space / greenspaces provision and minimising noise and air pollution.

NHS Five Year Forward View

- 10.9 Published in March 2017, the publication 'Next Steps on the NHS Five Year Forward View' sets out some of the key challenges / issues facing the NHS and how these are to be tackled over the short-term.⁴ These challenges include:

- We're getting healthier, but we're using the NHS more. Life expectancy has been rising by five hours a day, but the need for modern NHS care continues to grow. Demand for health care is highly geared to our growing and aging population. Demand is also heavily impacted by rising public expectations for convenient and personal care, the effectiveness of prevention and public health, and availability of social care. Even more significant is the steady expansion of new treatments and cures, of which the public are often unaware.
- The quality of NHS care is demonstrably improving, but we're becoming far more transparent about care gaps and mistakes. And although they are substantially lower than they were a decade ago, waiting times have been edging up.
- Staff numbers are up, but staff are under greater pressure.
- The public are highly satisfied with the NHS but are concerned for its future.

Clinical Commissioning Groups

- 10.10 As part of the changes to the NHS brought about by the Health and Social Care Act 2012 as from 1 April 2013, Basildon and Brentwood Clinical Commissioning Group (BBCCG) is now responsible for planning, designing and buying NHS services for the majority of people in Brentwood and Basildon. Part of the Brentwood Borough also has a surgery which reports to the Thurrock Clinical Commissioning Group (West Horndon). CCGs are responsible for planned hospital care, rehabilitation care, urgent and emergency care, most community health services and mental health and learning disability services.⁵ Sustainability and Transformation Plans (STPs) are being prepared for wider areas that incorporate several CCG areas. Draft STP's were, published in

⁴ <https://www.england.nhs.uk/wp-content/uploads/2017/03/NEXT-STEPS-ON-THE-NHS-FIVE-YEAR-FORWARD-VIEW.pdf>

⁵ Information reproduced from Basildon & Brentwood CCG Operational Plan 2016/17.

October 2016, summarising the work to date and outlining how system-wide plans can be delivered across organisations. The STP is an iterative document and will be reviewed periodically.

- 10.11 The BBCCG’s Operational Plan details the principal mission of the group, with a focus upon three main pillars – strengthening primary care, integrating care and ensuring sustainability of the local system. Figure 10.4 outlines the main themes in more detail.

Figure 10.4 Brentwood and Basildon CCG Mission Themes

<p>Strengthening Primary Care</p> <ul style="list-style-type: none"> • Ensuring effective collaboration between GP practices. • Aligning community health and social care teams around general practice. • Clinical leadership in preventing ill health and promoting wellbeing locally. • Ensuring explicit recognition by all providers of the lead role primary care play in coordinating the care of the registered population.
<p>Integrating Care</p> <ul style="list-style-type: none"> • Ensuring effective care coordination and care planning. • Establishing shared care records, utilising a single Personal Care Plan approach for the people of Basildon & Brentwood. • Focusing on preventative care and empowerment of individuals. • Harnessing the power of community resources to support resilience eg. social prescribing and carer support. • Encouraging pathways for smooth transfer of patient care from secondary care to primary care and vice versa.
<p>Ensuring Sustainability of the Local System</p> <ul style="list-style-type: none"> • Delivery of short- and longer-term financial sustainability. • Repatriation of patients into local providers. • Workforce strategies that address short- and longer-term needs of the system. • Effective use of estates across the care system (and beyond).

- 10.12 The BBCCG operating plan recognises the important role that General Practices (GP), play in local communities and as one of the cornerstones of the National Health Service (NHS). A key focus for the Operational Plan is to improve access to GP practice services through the expansion in capacity and provision of alternative consultation and care / support where appropriate. In practical terms, this translates to:
- Expanding the times that routine GP services are available.
 - Expanding the ways in which primary medical advice can be accessed.
 - Increasing access to alternative forms of community support which can appropriately divert demand from GP practices, and
 - Supporting the recruitment and retention of GPs and Practice Nurses.

- 10.13 NHS England and the Basildon and Brentwood CCG are working together to help plan and develop new ways of working within primary care facilities, in line with the BBCCG's Five Year Forward View plan⁶, to increase capacity in ways other than physical space. NHS England is also seeking to develop sustainable solutions through proactive coordinated care, including hubs, rather than the individual replacement of surgeries. There is also a significant focus upon premises for training and increasing capacity through technology.
- 10.14 Primary care transformation is also one of the key themes in the current Thurrock CCG Operating Plan.⁷ During 2015/16 Thurrock had a number of quality issues with regards to primary care, with several practices receiving poor Care Quality Commission ratings. Major concerns have focused upon the Tilbury area, which has a very low number of GP's per head of population. The CCG has been working with NHS England to transform primary care in the area to include:
- Developed four primary care health hubs which are helping to deliver 7 day a week primary care access to patients.
 - Developed a new IT system to improve booking into the new health hubs.
 - Supported NHS England to re-procure a number of practices where GPs have retired.
 - Developed a Joint Strategic Needs Assessment (JSNA) for Tilbury and Purfleet (Grays and Corringham to follow) incorporating all elements of health care including mental health.
 - Begun planning with Thurrock Council to build two new primary care healthy living centres.
 - Following a consultation, decommissioned the walk in centre in Grays because it was not offering an equitable service to the Thurrock population.
 - Developed a CCG primary care development team to focus on quality and governance support to practices in preparation for the forthcoming Locally Enhanced Services - Any Qualified Provider (AQP) process.

Primary Care Services

- 10.15 The Primary Care Strategies of the CCG's focus on the following key areas:
- General Practice to be provided at scale aligned to defined neighbourhoods;
 - the creation of a neighbourhood multi-disciplinary primary care workforce embedded in the Care Closer to Home model of care. This will provide

⁶ BBCCG 'Transforming health and care outcomes for the people of Basildon and Brentwood – Our 5 Year Strategic Plan

⁷ NHS Thurrock Clinical Commissioning Group Operational Plan 2016-17.

General Practice that is fully integrated; including the local authority and voluntary sectors;

- improved use of technology in General Practice;
- improved quality of care and safety of General Practice;
- increased patient access to fit for purpose estate suitable for the delivery of modern General Practice;
- supporting the development of a resilient General Practice workforce, and
- improved GP Training Facilities

10.16 A particular focus of the STPs is bringing simple diagnostics into communities. The CCG is also looking at more prevention-based and integrated service provision with social care. This growing focus on bringing care provision into the community may see the creation of health care 'hubs'/networks. To facilitate these strategies there will be a requirement to invest in infrastructure, which may include the need to deliver new facilities.

10.17 There are also STP priorities related to increased use of technology including, but not limited to:

- enabling patients and citizens to receive the care and support they need to live healthier, happier lives outside of a care setting;
- providing the information and tools to allow the local population to take responsibility for their own health and wellbeing;
- supporting professionals in delivering care with digital capability must enhancing working lives, not adding unnecessary challenges, and
- delivering the technology solutions to operate in an efficient and cost-effective way which supports continued high performance and future sustainability.

Local Hospitals

10.18 Correspondence from Basildon and Thurrock University Hospitals NHS has detailed that the regulators NHS Improvement has given permission for the proposals to merge the trust with the two further trusts which run Broomfield and Southend Hospitals. The current aim is to have a single NHS organisation by mid-2019. All three hospitals will continue to provide outpatient appointments, children's services and day surgery. All three hospitals will also provide 24/7 A&E and maternity services. There will be no reduction in beds, frontline staffing or in the overall budget.

10.19 In line with Primary Care Strategies and shifting care closer to home where possible, it is envisaged that the impact on the acute sector will culminate in the greater complexity of health needs of patients presenting in the acute sector. Hospitals will need to be redesigned to treat the patients of the future, with specific redesign based upon:

- greater community-based care for less acute patients;
- ageing population;

- hospital facilities which maximise the potential to treat the most-needy in the most efficient manner possible, centralising services and maximising economies of scale;
- greater treat and discharge models of care, linking to increased community and social care provision;
- move to designated day-case and ambulatory models of care and settings;
- increased health needs/acuity of those patients presenting in the acute sector;
- provision of the transfer of patients to less acute settings as soon as clinically appropriate, providing patients with care closer to home as soon as possible;
- the centralisation of support functions and services, such as Pharmacy, enabling the greater provision of community healthcare whilst maintaining the most acute patient care within the acute setting, and
- return of patients from specialist centres outside the local area back to local services as soon as appropriate.

Ambulance Services⁸

10.20 The East of England Ambulance Service NHS Trust (EEAST) Estates Strategy (2017-2022) indicates that a range of national initiatives are underway aimed at improving performance and sustainability within the NHS. There is widespread agreement from the stakeholders sponsoring these initiatives about the changes required within ambulance services and across the wider urgent and emergency system. Addressing these changes requires the Trust to develop revised operating models and strategies for all aspects of its services, including operational support services such as the Estates Service.

Public Health Services

10.21 Responsibility for public health was moved out of the NHS into local government in April 2013. Health and Wellbeing Boards (HWBs) promote co-operation from leaders in the health and social care system to improve the health and wellbeing of their local population and reduce health inequalities. HWBs are responsible for producing a Joint Health & Wellbeing Strategies (JHWS), Joint Strategic Needs Assessments (JSNA) and Pharmaceutical Needs Assessments (PNA) for the Basildon borough area.

10.22 Public health services are commissioned by Essex County Council in partnership with the respective local authorities. These services are primarily focused on prevention and early intervention, specifically developing measures that help to reduce illness and to tackle the causes of poor health at source. This includes initiatives to increase activity and healthy living, such as cycling and walking, as well as provision of green space within developments. The strategic overview of the STPs includes consideration of these issues.

⁸ Information on ambulance services and public health adapted from IDP submission by the Community Health Partnership.

- 10.23 Priorities for Public Health within spatial planning include supporting access to quality open and green/blue space, healthy diets including improving access to local and fresh food, improving community cohesion and reducing social isolation, supporting air quality, increasing active living through movement and play across all ages and supporting good quality housing design across the life course. Reducing health inequalities underpins our work.
- 10.24 Local data on Public Health is published annually by a number of national organisations including Public Health England and the NHS. This includes the local Health Profiles and the Public Health Outcomes Framework. Assessment of Public Health and Wellbeing need will be supported by the Health Impact Assessment processes, local evidence base and current Public Health Policy.

EXISTING INFRASTRUCTURE, GAPS AND PROGRAMMES

General Practice – Infrastructure, Gaps and Programmes

- 10.25 There are ten GP Surgeries (eight main surgeries and two branch surgeries) covering Brentwood Borough, which are detailed below in Figure 10.5 and **Figure 10.6**. Historically, the optimum number of patients per GP was 1,750. Using a simple calculation it can be noted that a number of the surgeries are operating at figures beyond the optimum number of patients per GP. These are highlighted in blue.

Figure 10.5: GP Practices

GP	Postcode	GP Code	Operational Details ⁹	Weighted Patient List Size (01/10/17)	NIA (m2)
Beechwood Surgery, Pastoral Way, Warley, Brentwood, Essex,	CM14 5WF	F81023	Larger 6 GP practice.	10730	968
Brambles Branch Surgery, Geary Drive, Brentwood	CM14 4FZ	F81085	From 1st October 2013 - The New Surgery has taken over Brambles Surgery and this will be utilised as a branch surgery. Patients previously registered with Brambles Surgery, as well as patients from The New Surgery may access medical care at this Branch. When the Brambles Branch Surgery is closed all patients should contact the main surgery in Shenfield Road 01277 218393 to access medical care or to	13020	115.9

⁹ This information does not include Full Time Equivalent (FTE) roles.

			register with the practice. (3 GPs)		
Rockleigh Court Surgery, 136 Hutton Road Shenfield Brentwood Essex	CM15 8NN	F81102	4 GP practice	6143	161
The Highwood Surgery, Geary Drive, Brentwood, Essex	CM15 9DY	F81737	1 GP practice	2189	148
Deal Tree Health Centre Blackmore Road Doddinghurst Brentwood Essex	CM15 OHU	F81215	4 GP practice	9898	784
The New Folly Surgery :Bell Mead Ingatestone Essex	CM4 0FA	F81163	4 GP practice	6573	243
Mount Avenue Surgery Address:Mount Avenue Shenfield Brentwood Essex	CM13 2NL	F81055	Larger 7 GP practice.	11870	438
The New Surgery Address:8 Shenfield Road Brentwood Essex	CM15 8AB	F81085	Larger 8 GP practice	13020	592.8
Tile House Surgery Address:The Tile House, 33 Shenfield Road Brentwood Essex	CM15 8AQ	F81038	Larger 7 GP practice	13303	555
West Horndon Surgery, 129 Station Rd, West Horndon, Brentwood CM13 3NB	CM13 3NB	F81134	4 GP practice (also linked to Peartree Surgery)	n/a	n/a

Figure 10.6 GP Practices Across the Borough

To Insert

- 10.26 There are currently no particular ‘gaps’ in the front-end GP services identified, although it is noted that a number of practices are potentially under pressure in terms of patient numbers. This situation is not unique to Brentwood, but is part of the wider challenges facing the NHS. It was also a strong feedback theme from local residents during consultation on earlier stages of the Local Plan. A number of the practices are also physical constrained, which makes the delivery of current services challenging – this is a particular issue in discussions with West Horndon Surgery.
- 10.27 The BBCCG has indicated that there is potential a need to ensure that supporting physical infrastructure such as superfast broadband / fibre optics and public transport connectivity is good to ensure that they can deliver healthcare services to patients through a range of media and that services are accessible to all.
- 10.28 At the local level the main improvements in health infrastructure provision within the Brentwood Borough are focused upon:
- adding depth and range to existing GP services, by building upon local expertise, collaboration between practices and combined learning;
 - providing patients with wider access to health information and services through media and on-line resources;
 - better aligning community health and social care;
 - maximising opportunities to develop Brentwood Community Hospital in terms of the range of services and specialisms.

These improvements are central to BBCCG ambitions for the Brentwood area. West Horndon Surgery has also expressed a need to move to larger premises which are better suited to delivering modern healthcare services. This requirement is linked to current need.

Hospitals and Acute Care – Infrastructure, Gaps and Programmes

- 10.29 The Basildon and Thurrock University Hospitals NHS Foundation Trust (BTUH) currently serves the Brentwood area and provides a range of health services including:
- an extensive range of acute medical services at Basildon University Hospital, including accident and emergency services and the Essex Cardiothoracic Centre
 - outpatients, diagnostics and a day surgery unit at Orsett Hospital (Orsett also houses a minor-injuries unit), and

- diagnostic services (x-ray and phlebotomy) at the St. Andrew's Centre, Billericay.

10.30 The Queens Hospital in Romford is also within relatively close distance of the Brentwood Borough and the North-East London NHS Foundation Trust and Southend University Hospital NHS Foundation Trust provide a range of specialist patient services at Brentwood Community Hospital. Surrounding main acute hospitals also include Southend, Broomfield and Harlow. Two large community hospitals serve the area, Brentwood Community Hospital and Mayflower Community Hospital (Billericay).

10.31 It is noted earlier in the chapter that NHS Improvement has given permission for the proposals to merge with the BTUH trust with the two trusts which run Broomfield and Southend Hospitals. Further to this announcement, the following recommendations are likely to progress:

- Basildon, Broomfield and Southend hospitals will continue to provide the services our patients use the most, including full A&E and maternity services.
- There will be a move to separate planned surgery from unplanned surgery to reduce delays and cancellations for patients and;
- Some specialist services will be consolidated to improve the outcomes for patients.
- Orsett Hospital will close when four integrated medical centres are in place for staff and services.

It is considered that this programme will unlock over £100m of additional funding to invest in new buildings and facilities. Attention will also focus upon improving bus infrastructure between the various hospitals and medical facility sites.

10.32 Within the Borough there is one community hospital located at Crescent Drive, Shenfield, which provides a range of services, including:

- cardiology;
- child health care services;
- COPD services;
- dermatology;
- ear, nose and throat;
- epilepsy;
- general medicine;
- mobility and falls service;
- nephrology;
- Parkinson's disease services;
- physiotherapy

- sexual health services
- stroke services
- tissue viability services
- urology

The services at the hospital are delivered by a number of Foundation Trusts, plus Connect Health.

- 10.33 There is an ongoing programme to improve the utilisation of Brentwood Community Hospital, to reduce the void costs associated with the building and making better use of the opportunity for providing a significant range of health and care services to the local population and beyond.

Ambulance Services – Infrastructure, Gaps and Programmes

- 10.34 The East of England Ambulance Service NHS Trust (EEAST) Estates Strategy (2017-2022) proposes the following estate transformation strategy:
- configuration of the estate as necessary to meet a vision to provide cost effective and efficient premises of the right size, location and condition to support the delivery of clinical care to the community served by the Trust;
 - a resulting regional estate configuration which consists of: network of 18 ambulance ‘hubs’, and
 - each ‘hub’ will support a ‘cluster’ of community ambulance stations, tailored to meet service delivery and patient response specific to their local area.

Dentists – Infrastructure, Gaps and Programmes

- 10.35 Within the Brentwood Borough area there are 8 dentist practices and one specialist Orthodontic Centre. Six of the dentist practices currently accept NHS patients.¹⁰ Figure 10.6 below provides a list of the dentists, operational details and feedback on waiting lists. From a telephone survey it is clear that there is still some existing capacity within the Brentwood Borough with regards to Dentists accepting NHS patients.

Figure 10.6 Brentwood Borough - Dental and Orthodontic Surgeries

	Dental Surgeries (10)	Operational Details	Patients per Dentist /Waiting List (24/10/16)
1	Herongate Dental Practice 152 Brentwood Road Herongate	3 dentist practice	No waiting list / accepting NHS patients

¹⁰ This information was collected in October 2016 and there is a need to update on a refresh of the IDP.

	Brentwood Essex CM13 3PD, 01277 810239		
2	Homewood Dental Practice 21 Shenfield Road Brentwood Essex CM15 8AG, 01277 220147	large practice - 11 dentists	Waiting list - approximately 3 weeks - 20/25 on waiting list / Accept NHS patients
3	SHAH NM MR Brentwood Orthodontic Centre 17 Shenfield Road BRENTWOOD Essex CM15 8AG, 01277 848818	2 orthodontists plus numerous other staff	Could not get through on phone / specialist services
4	Family Dental Practice 2 South Street Brentwood CM14 4BJ, 01277 233282	2 dentist practice	No waiting list / accepting NHS patients
5	Ongar Road Dental Practice 16 Ongar Road Brentwood Essex CM15 9AX, 01277 848777	large practice - 8 dentists / ortho	No waiting list / accepting NHS patients
6	Crown Street Dental Group Old Kings Yard 16a Crown street Brentwood CM14 4BA, 01277 221014	2 General Dentists / 2 Specialist dentists / 1 Implant Specialist	No waiting list / Not accepting NHS patients

7	Hutton Village Dental Surgery / / Hutton Village Dental Coram Green	7 dentists / professional staff	1 practice for private patients / 1 practice for NHS patients. No waiting list for NHS services
8	Coram Green Hutton Essex CM13 1LR, 0844 815 1015		
9	John Cuddigan and Associates 163 High Street Brentwood Essex CM14 4SD, 01277 210213	3 dentists	No waiting list / accepting NHS patients

Pharmacies – Infrastructure, Gaps and Programmes

- 10.36 There are thirteen pharmacies in Brentwood, one of which holds a 100 hour contract. All pharmacies are open from 9:00am to 17:30pm Monday to Friday (with the exception of one afternoon closure). Five pharmacies open earlier, with the earliest opening time 07:00am. Two pharmacies are open beyond 18:30pm, with the latest closure at 22:00pm.
- 10.37 Saturday service in the district is slightly reduced, however all except one pharmacy are open at some time during the day. Two pharmacies are only open in the morning, the remainder offer afternoon service provision until at least 16:00pm. The latest closing time is 22:00pm. Earliest opening hours on a Saturday is 07:00am. Three pharmacies open on Sunday, two between 10:00am and 16:00pm, and the other open from 09:00am until 21:00pm.
- 10.38 There were no pharmacies within Brentwood that administered disease specific medicine management, but the majority are willing to provide. There were also limited screening services provided. Several provided seasonal vaccinations, care home services and a medication review service. 12 pharmacies provide MURs, considered a relevant service by the PNA.
- 10.39 Figures 10.7 and 10.8 below provides information on pharmacy service provision within the Brentwood Borough area. The core information contained in this section has been extracted from the Essex Pharmaceutical Needs Assessment (PNA) – Basildon and Brentwood (2015).¹¹

¹¹ <https://www.essexinsight.org.uk/Resource.aspx?ResourceID=1094&cookieCheck=true&JScript=1> – further update may be available.

Figure 10.7: Pharmacies – Overview of Services

Pharmacy Name	Address	Supervised Consumption (ECC)	Needle and Syringe (ECC)	Sexual Health (ECC)	Smoking Cessation (Lead Provider)	NHS Health Checks (ECC)	MURS (NHSE)	Specific Type
Boots UK Limited	51 High Street, Brentwood, CM14 4RH	Yes		Yes	Yes		Yes	
Burntwood Pharmacy	27 Shenfield Rd, Brentwood, CM15 8AG			Yes	Yes		Yes	
Cohen's Pharmacy	138 Hutton Road, Brentwood, CM15 8NL	Yes					Yes	
Day Lewis Pharmacy	Pastoral Way, Brentwood, CM14 5WF				Yes		Yes	
Ingrave Pharmacy	21 E.Ham Crescent, B'wood, CM13 2BN	Yes		Yes	Yes		Yes	
Ongar Road Pharmacy	249 Ongar Road, Brentwood, CM15 9DZ	Yes	Yes		Yes		Yes	
Pharmchoice Pharmacy	9 Ingrave Road, Brentwood, CM15 8AP	Yes			Yes			HH
Rowlands Pharmacy	222 Hutton Road, Shenfield, CM15 8PA			Yes	Yes		Yes	
Sainsburys Pharmacy	51 W. Hunter Way, B'wood, CM14 4WQ						Yes	
Shadforth Pharmaceutical	80 High Street, Ingatestone, CM4 9DW			Yes	Yes		Yes	
The Co-operative Pharmacy	201 Rayleigh Road, Hutton, CM13 1LZ	Yes	Yes				Yes	
The New Pharmacy	33a High Street, Brentwood, CM14 4RG			Yes	Yes		Yes	
Village Pharmacy	86 Church Ln, Doddinghurst, CM15 ONG	Yes		Yes	Yes		Yes	

Figure 10.8: Locally Commissioned Pharmacy Services in Brentwood

Brentwood Service	Service description	Current provision	Gaps
Needle syringe provision- a <i>relevant</i> service	The aim of the needle exchange service is to minimise harm associated with the use of injecting equipment by drug users. The service provides clean injecting equipment and takes in used equipment for safe disposal. The service also provides an opportunity to signpost users to treatment services and to convey health promoting messages.	Two pharmacies provide needle & syringe provision, with others willing to provide with training. Pharmacies provide important access during evenings and weekends.	No gaps are identified. The two pharmacies in the area provide adequate provision. There is provision at weekends providing valuable access. There is further access to provision from the wider treatment system during weekdays

Supervised Consumption- a <i>necessary</i> service	The aims of the supervised consumption service are to provide support to drug users in treatment and assurance to drug treatment teams about compliance with prescribed treatment. The pharmacist supervises, often daily, the taking of drug treatment by patients in the pharmacy. The service is part of the national framework for drug treatment services.	7 pharmacies provide the service. There is good provision in terms of opening hours across these pharmacies. It performs a crucial role in the treatment system ensuring compliance with treatment and reducing possible diversion into the community.	No gaps are identified.
Sexual health services- a <i>relevant</i> service	The aim of the EHC service is to provide a safe and accessible route for women wishing to obtain emergency contraception. It forms part of the outcome for avoiding unwanted pregnancy and reducing teenage pregnancy. The aim of the Chlamydia screening service is to promote screening for Chlamydia and to provide advice and signposting to services for at risk people. The service allows pharmacies to offer the option of a Chlamydia test to the target population and to offer treatment if the test is positive.	7 pharmacies offer sexual health services There is provision from the wider treatment system, however, pharmacies provide important walk in access during evenings and weekends.	No gaps are identified.
Stop Smoking Services- a <i>relevant</i> service	Stop Smoking Services includes the provision of advice on stopping smoking and supply of nicotine replacement therapy (NRT). A key differentiator of pharmacy stop smoking services from other providers is the ability to supply medicines at the point of care. Pharmacies are seen as key providers of stop smoking services due to their opening hours, accessibility and ability to advice and supply NRT. Stopping smoking is the single most effective health care intervention that can be made. Community pharmacy contractors also sell a broad range of over the counter NRT which can be used by smokers intending to stop smoking to manage their own quit attempt.	10 of the pharmacies currently offer smoking cessation services. There is provision from the wider treatment system, however, pharmacies provide important walk in access and provision of NRT at point of care during normal and extended evening and weekend hours.	No gaps are identified.
NHS Health Checks- a <i>relevant</i> service	The aim of the service is to deliver NHS Health Checks from community pharmacies in Essex in areas where the	None of the pharmacies provide this service. It is widely provided by GPs and	No gaps are identified.

	GP does not wish to provide the service to their local population. It is an important service in identifying early onset of certain long term conditions.	community providers in the area.	
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10.40 From the resident survey conducted for the PNA, 84% stated that they have not experienced any problems accessing their usual pharmacy or dispensing doctor. The provision of necessary and relevant pharmaceutical services in the locality is considered to be adequate and no gaps have been identified at different times of the day. Locally commissioned services from local authorities and CCGs fall outside the definition of enhanced services; they have no bearing on pharmacy applications.

Opticians – Infrastructure, Gaps and Programmes

10.41 At the time of surveying, there were six main opticians in the Brentwood Borough area and one specialist optometrist.

- Specsavers Opticians – 22 High Street, Brentwood
- Templeman Opticians – 131 High Street, Brentwood
- Edward Watts Opticians – 14, Chelmsford Road, Shenfield
- Boots – 15 and 36-38 High Street, Brentwood
- Scrivens Opticians, Baytree Centre
- Vision Express, 26a, High Street, Brentwood
- Cole, Martin and Tregaskis Optometrist

No identified gaps in provision or new programmes have been identified.

IMPLICATIONS OF GROWTH

General Practices

10.42 Feedback from NHS England on infrastructure planning generally indicates that it is NHS policy locally is to attempt to accommodate growth wherever possible within the current premises envelope, though this is likely to require capital works to adapt facilities over time, and only to seek new premises where this is demonstrably necessary.

10.43 It has been indicated from NHS England that the anticipated impact from Local Plan sites will necessitate planning contributions across the Borough towards increasing capacity for local primary care facilities, by means of extension, reconfiguration or

refurbishment. It is also indicated that the proposed growth in the Brentwood Borough may require the provision of new health care infrastructure.

- 10.44 In relation to Dunton Hills Garden Village and West Horndon, EIA assessment feedback on the emerging planning application for Dunton Hills indicates that the development will have a significant impact upon primary healthcare provision and generate increased demands upon healthcare services in the area. It is anticipated that a residential development of this scale is likely to generate the need for a new primary health care facility. This would be subject to NHS England prioritisation and approval processes. Detailed design and requirements would need to be discussed and agreed with the developer at the appropriate stages.
- 10.45 The GP practice at West Horndon is at physical capacity and will also be impacted by other recent planning approvals within the vicinity. Subject to NHS England prioritisation and approval process, it is likely that new health infrastructure will be required in the new development itself and options need to be considered for how capacity can be provided through the timeline of the development. These options need to consider the scale and timing of any new facility. Phased development of the facility could be considered. Re-providing the existing GP surgery within the new facility should be considered as part of the options appraisal, but will require appropriate consultation with the current GP Practice and the existing West Horndon community.
- 10.46 In line with other comments, the scale and nature of the facility required is dependent on the range and frequency of services required. Initial calculations show that the fully completed development will require a health facility of circa 658.29 m² for GP services. This figure may increase if it is shown that significant space is needed in West Horndon for other health and social care services. NHS England is willing in principle to discuss co-location with other public services and potential temporary use of other public-sector buildings (and vice versa). Any co-location would require the normal building and operational standards for NHS buildings to be met. Feasible options to increase primary healthcare capacity therefore would need to be considered and established.¹²

Hospitals

- 10.47 The BTUH has also indicated that due to the increase in population Basildon Hospital will need to expand their specialist services across the acute footprint to accommodate this predicted growth. BTUH will be seeking developer's contributions for this. Further information has been requested from the BTUH, vis the health partnership as to how the requirement has been calculated, particularly in light of recent hospital

¹² Reference required

investments and the additional funding which the combined trust may be able to obtain through restructuring to invest in new buildings and facilities.

- 10.48 Brentwood Community Hospital is a significant resource, which the BBCCG is committed to fully utilise to strengthen the community-based provision of healthcare. There may be an opportunity to further invest in Brentwood Community Hospital as part of the overall investment required in the healthcare infrastructure for the Borough, although this should not detract from directly investing in local communities, where the healthcare infrastructure need is demonstrated and would support the sustainability of that location.

Dentists, Pharmacies and Opticians

- 10.48 It is difficult to fully evaluate the impact on dentist surgeries of the projected growth from the local plan allocations, but it is likely to require an investment in expanded or new facilities. Appendix x provides an indicative forecast arising from the allocations. Particular 'urban' pressure points are potentially Herongate Dental Practice, Ongar Road Dental Practice and Hutton Village Dental Practice. It is anticipated that Dunton Hills Garden Village will generate sufficient population to support a new practice, possibly as part of wider healthcare infrastructure.
- 10.49 The Local Plan may also create positive business opportunities for pharmacies and opticians. Again, where feasible there may be options to cluster services around other healthcare infrastructure.

FINANCIAL CONSIDERATIONS

- 10.50 NHS England have indicated that it is not possible to accurately determine the build cost or size of new health facilities at this stage and that much will depend on a large number of complex and inter-related factors that can only be resolved at a more advanced stage in the planning process. It will not be the case that each new health facility would be a fixed size or would have a fixed range of services. Clinically there are circumstances where co location of GP and other NHS or social care functions are desirable and would be considered or sought.
- 10.51 The Council agrees that further, more detailed option and cost analysis is required in relation to final healthcare infrastructure projects. However, based upon potential headline contributions indicated in correspondence from NHS England and the Council's own calculations using NHS formulae this equates to circa £3m linked to Local Plan allocations. This is an estimate only at this stage and is carried forward to Part B of the report.
- 10.52 It is noted that the BTUH will be seeking a developer contribution towards infrastructure costs associated the expansion of Basildon Hospital. Further clarification

on this matter has been requested. The contribution level is significant and equates to circa £3013 per dwelling. The IDP currently includes this figure within the macro calculations to be found in Part B of the document, until the position is clarified.

- 10.53 In terms of ambulance services, the EEAST Estates & Development plans includes some allowance for growth in demographics of population changes and therefore any increase in requirements to meet these changes will require modelling to account for the required increased workforce. EEAST are currently participating in an independent service review commissioned by healthcare regulators to better understand what resources are needed to meet patient demand.

11 SPORT

INTRODUCTION

- 11.1 This section of the IDP is currently under final drafting. For an initial review of sports infrastructure needs and findings please see the technical evidence on play pitches and indoor sports facilities. The Draft Leisure Strategy should also be noted. Part B of the IDP also lists infrastructure projects.
- 11.2 This part of the IDP will be updated before the commencement of consultation on the Local Plan.

12 BUILT HERITAGE

OVERVIEW

- 12.1 This chapter of the IDP is mainly concerned with understanding Brentwood's built heritage infrastructure, local priorities and the implications and opportunities of development. Built heritage makes a significant contribution to our daily lives, our sense of identity, community and place. It also has a clear economic value – not only connected to attracting visitors, but also if managed positively, to engendering investment confidence. The main themes explored in this chapter of the IDP include:
- understanding Brentwood's built heritage;
 - implications of growth on key assets
 - infrastructure priorities and potential financial implications

BRENTWOOD'S BUILT HERITAGE ASSETS

- 12.2 The Brentwood Borough is rich in heritage assets; built, landscape and cultural. Brentwood's organic growth is recognisable by the historic settlement patterns for its villages and hamlets, these are largely sited on routes to and from London and East Anglia and often interspersed by high quality green infrastructure.
- 12.3 The Council positively encourages the enhancement and understanding of the significance of heritage assets and apporions great weight to the protection of the Heritage Assets in any decision-making process for future development.

Listed Heritage Assets

- 12.4 Historic England maintains the list of protected buildings or sites known as 'The Heritage List'¹ (officially the National Heritage List for England or NHLE). This list is the most up to date record of all nationally protected historic buildings or sites in England. Figure 12.1 below highlights the range of heritage categories and quantities of designated assets on the current list for Brentwood, together with some of the more important features in terms of listing.

¹ <https://historicengland.org.uk/listing/the-list/>

Figure 12.1: Listed Heritage Assets – Brentwood Borough

Heritage Categories ²	Quantities	Important Buildings and Sites	% of Total Listed Heritage Assets
Listed Buildings Grade 1	12	Ingatestone Hall, Thorndon Hall	2.24%
Listed Buildings Grade II*	27	GATEHOUSE AND COURTYARD RANGES 30 METRES WEST OF INGATESTONE HALL, CHANTRY CHAPEL AND MAUSOLEUM, THORNDON PARK, THORNDON PARK, BRENTWOOD,	5.05%
Listed Buildings Grade II	493	RUINS OF OLD CHAPEL OF ST THOMAS A BECKET	89.91%
Scheduled Monuments	12	The Chapel of St Thomas a Becket, Roman villa 100m north west of Handley Barns	2.24%
Parks & Garden Grade II*	1	THORNDON HALL	0.19%
Park & Garden Grade II	2	WARLEY PLACE	0.37%
	535		100%

12.5 Figure 12.2 below provides a map of the Borough with identified Grade1, II*, Scheduled Monuments and Parks and Gardens. From this plan it can be noted that...a high concentration of listed buildings are located upon historic routes through settlement villages; are historic farmstead complexes and/or are set within former large estates on high points within the Borough relating to the gentrification of the Borough post 17th C.

Figure 12.2: Important Buildings and Sites

To Insert

² Grade I buildings are of exceptional interest, only 2.5% of listed buildings are Grade I / Grade II* buildings are particularly important buildings of more than special interest; 5.8% of listed buildings are Grade II* / Grade II buildings are of special interest; 91.7% of all listed buildings are in this class and it is the most likely grade of listing for a home owner.

Conservation Areas

- 12.6 Conservation areas are areas that have been designated as being of special architectural or historic interest, the character or appearance of which it is desirable to preserve or enhance. The Planning (Listed Building and Conservation Areas) Act 1990 creates special controls for areas designated as conservation areas. Conservation area controls apply in addition to normal planning controls. The nature and size of conservation areas within the Borough varies considerably. They are all of special character or appearance and have historic or architectural interest that is worthy of preservation and enhancement. There are currently 13 conservation areas designated within the Borough as outlined in Figure 12.3.

Figure 12.3: Conservation Areas

Title	Date adopted (amended)	Area (ha.)	Type
Ingatestone High Street	27.11.1969 (17.09.1991 & 13.01.2010)	8.5	Village Centre
South Weald	02.11.1973 (22.07.1993)	4.0	Village Centre
Blackmore	12.12.1975	18.0	Village Centre
Great Warley	12.12.1975 (22.07.1993 & 17.10.2012)	4.0	Village Centre
Herongate	12.12.1975 (17.10.2012)	5.5	Village Centre
Station Lane, Ingatestone	22.09.1981 (17.09.1991 & 13.01.2010)	10.0	Residential Area
Hutton Village	23.04.1986	30.0	Residential Area
Fryerning	08.03.1991 (18.12.2013)	25.0	Village
Weald Park	22.07.1993	212.0	Historic Park and Garden
Thorndon Park	22.07.1993	243.0	Historic Park and Garden
Warley Place	22.07.1993	11.0	Historic Park and Garden
Brentwood Town Centre *	01.03.2000 (13.01.2010)	14.5	Historic Town Centre
Highwood Hospital	12.07.2001	5.1	Hospital

* Brentwood Town Centre Conservation Area comprises the amalgamation of the three conservation areas of Wilson's Corner, Chapel and Hart Street.

Local Listings

- 12.7 The NPPF contains policies that apply to heritage assets regardless of whether or not they are locally listed. However, local listing provides a sound, consistent and accountable means of identifying local heritage assets to the benefit of good strategic planning for the area and to the benefit of owners and developers wishing to fully understand local development opportunities and constraints.
- 12.8 Non-designated heritage assets (local listed heritage assets) can include buildings, places or areas of cultural and/or local significance which whilst not nationally designated make a positive contribution to the Historic Environment and its understanding. In decision making, proposals which affect locally listed heritage assets and/or their setting, must take into account the strong requirement for their retention and the enhancement of their significance locally.
- 12.9 Locally listed buildings within the borough are to be recorded on a live database. Whilst the Local Listing Programme is at embryonic stage, this list and its future enrichment is essential in conserving local distinctiveness and community engagement in the historic environment. The Council support the ethos of local listing and the opportunities it brings to engage a diverse range of stakeholders into the management and education of the local historic environment.

Archaeology

- 12.10 The Essex Historic Environment Record (EHER) is a computerised database of all listed and other historic buildings and all known archaeological sites, historic parks and gardens and other historic landscape features in the county, plotted onto linked digital mapping, and backed up in many instances by photographs, drawings and substantial written accounts. This function is managed and updated on a cyclical basis by ECC, the borough also has a dedicated County Archeologist within the Place Services Team at ECC, the services from within the ECC archaeology team extend to preapplication services to inform future site development and the embedding of below ground built heritage, along with the requirements and management of WSI (Written Schemes of Investigation).

IMPLICATIONS OF GROWTH

- 12.11 There are a number of heritage features which are located within or form part of Local Plan allocation sites and it will be important to maintain the integrity of the heritage buildings or sites. There are also opportunities for further research on allocation sites as part of any redevelopment to ensure that any archaeological or historic findings can be effectively reflected in new site interpretation and information. This may be particularly relevant to the development of brownfield sites within Brentwood town centre, where there may be as yet unknown historic connections or archaeological findings. New developments often succeed where there is a connection to the past which can be understood and appreciated in the present.
- 12.12 As with parks and gardens and ecological assets, there may be an impact with an increased resident population on local heritage where it is accessible to the public. It will be important to monitor and plan for any anticipated impacts, particularly around high growth areas.
- 12.13 There are a number of historic assets within Borough where it may be appropriate to develop business plans for redevelopment / refurbishment to support wider community interests, activities and uses.
- 12.14 Not all heritage is designated, and it will be important to support the local listing programme to enrich our understanding of local heritage and culture.

FINANCIAL CONSIDERATIONS

- 12.15 Potential financial considerations include:
- heritage interpretation and sign-posting, linked to wider projects on improving the public realm and legibility within the Brentwood Urban Area;
 - funding for the protection and redevelopment of heritage assets – particularly with wider community use options to support a growing population, and
 - support for the development of the local listings programme.

13 EMERGENCY SERVICES

OVERVIEW

13.1 This chapter of the IDP is concerned with key emergency services, which includes the police and fire and rescue services. As with other parts of the public sector, there has been substantial restructuring in service delivery to not only respond to changes in resources but also the increasingly challenges of societal demands. The ambulance service is treated separately under the chapter on health infrastructure.

13.2 Research on the future of policing in the UK identifies a number of new policing realities¹:

- policing takes place in a fully digital world, which influence crime recording, the application of digital technology and data;
- funding realities where private investment in crime prevention (for example cyber-crime) outweigh those of the state struggling to fund health, care and pensions expenditure;
- extreme pace of change with constant business innovation creating new criminal opportunities;
- advanced technology and knowledge management are essential for reducing crime and managing police services, and
- operating with near total transparency due to increasing surveillance by the public and police.

Driven by resourcing pressures and modern policing challenges, various operating models have been adopted including cross-force collaborations, government agency collaborations and shared multi-agency facilities.

13.3 The role of the fire service is also changing. There have been well documented calls for continuous improvement and cost reductions but significant improvements in community fire safety by local brigades have resulted in a large fall in the number of fire-related incidents. In 2009/10, fire and rescue services attended 830,161 fire-related incidents across Great Britain. By 2015/16, this had fallen to 654,571. The average age of firefighters is likely to increase with the proposed implementation of later retirement and this could have implications for the typical levels of health, fitness and experience among firefighters. In addition, changes in geographic population

¹ Deloitte – Policing 4.0 Deciding the future of policing in the UK

density, road use and improvements in home safety continue to affect both the nature and quantity of demand for fire and rescue services².

EXISTING INFRASTRUCTURE, GAPS AND PROGRAMMES

Police

13.4 The Police and Crime Plan for Essex³ sets out seven policing priorities to protect the county, namely:

- more local, visible and accessible policing;
- crack down on anti-social behavior;
- breaking the cycle of domestic abuse;
- reverse the trend in serious violence;
- tackle gangs and organised crime;
- protecting children and vulnerable people, and
- improve safety on our roads.

13.5 At its launch in 2016, the plan indicated a need to make spending cuts of between £10-12 million. The plan recognised that the current Essex Police property estate includes 80 buildings in a poor state of repair which will require £30 million of maintenance work to bring up to standard and expenditure of almost £2 million a year just to maintain the current condition. Based on careful analysis the plan was to reduce the estate to 30 buildings strategically placed around Essex. The force also needed a Headquarters that is modern and fit for purpose both now and for the next 20 years.

13.6 The implications for Brentwood Borough include the disposal of the former Police HQ building on London Road and integration of local policing infrastructure within Brentwood Town Hall. Uniformed officers who are currently based at the station – including community and local policing teams - will continue to have a presence in the town and will in future work from a shared hub at the Town Hall in Ingrave Road.

Fire and Rescue Services

13.7 The Essex County Fire and Rescue Service (ECFRS) manages fire risk across Essex. The purpose of the ECFRS is to protect and save life, property and the environment and serves a population of over 1.7m and 1,400 square miles. On average the service attends over 14000 incidents a year. The current service is staffed by approximately 1,215 firefighters (735 wholetime and 480 retained), 46 Control personnel and 266

² Commentary from Nicola Bateman, Karen Maher and Ray Randall 'Drivers of change in the UK Fire Service: an operations management perspective'.

³ <http://www.essex.pfcc.police.uk/what-we-are-doing/police-and-crime-plan/>

support staff. The service headquarters are at Kelevedon Park, Rivenhall and of the 51 fire stations within the operational area, 1 is located in Brentwood Town (Station 51 - wholetime and retained) and a retained crew at Ingatestone (Station 67).

- 13.8 The ECFRS Integrated Risk Management Plan (IRMP) forms part of the approach to identifying, accessing and managing risk in Essex. It is a strategic document and indicates a changing picture of risk within Essex. This includes:
- Flooding – flooding events and the risk of flooding is becoming more frequent as weather patterns continue to change.
 - Industrial incidents – planning effectively to manage major industrial incidents.
 - Transport incidents – responding quickly and effectively to road, rail, air and sea incidents and recognising the commuting linkages between Essex and London.
 - Major chemical, biological, radiological, nuclear and explosive attacks – the likelihood of major incidents or attacks of his nature has increased and has taken on a new focus.
 - Human disease – pandemic influenza and other contagious diseases offer a significant risk to the public.

IMPLICATIONS OF GROWTH

- 13.9 Discussions have taken place with Essex Police (Estates) over the implications of the Local Plan early in the plan formulation stage, but the Council is awaiting the outcome of detailed considerations on the implications of growth for local policing. S.106 / CIL contributions and examples of appeal decisions relating to police contributions for infrastructure have traditionally identified the need for staff, equipment, back office facilities and various types of operating infrastructure including drop in hubs.⁴
- 13.11 Discussions have also take place with Essex County Fire and Rescue Service, but no specific infrastructure requirements have been identified to date.
- 13.12 While too early to consider in detail, and along similar lines to healthcare infrastructure, there may be specific ITC requirements arising from the use and exchange of information, necessitating effective and secure high capacity broadband infrastructure.

⁴ [https://www.stratford.gov.uk/files/policy/HearingStatementsH-N/HS-63%20-%20Warwickshire%20Police%20and%20West%20Mercia%20Police%20\(4549-1\)%20-%20Matter%20I%20-%20Appendix%201.pdf](https://www.stratford.gov.uk/files/policy/HearingStatementsH-N/HS-63%20-%20Warwickshire%20Police%20and%20West%20Mercia%20Police%20(4549-1)%20-%20Matter%20I%20-%20Appendix%201.pdf)

FINANCIAL CONSIDERATIONS

- 13.13 With the local plan proposing a new settlement and major urban extensions it is prudent to plan for potentially new multi-use and multi-agency space within new and existing community facilities. In terms of Dunton Hills this may include planning new community facilities to provide capacity for drop-in or flexible operational police space. It would also be wise to set aside a working budget within the IDP for enhanced local policing until further information is supplied.

14 GREEN INFRASTRUCTURE

INTRODUCTION

14.1 In the new NPPF Green Infrastructure is defined as:

'A network of multi-functional green space, urban and rural, which is capable of delivering a wide range of environmental and quality of life benefits for local communities'.

Although sometimes referred to as Blue Infrastructure, Green Infrastructure also encompasses river systems and environs. The NPPF places a strong emphasis upon strategic policies in plans focusing upon the conservation and enhancement of the natural, built and historic environment including landscapes and green infrastructure (para 20d). Green infrastructure is also seen as part of essential place-making to enable and support healthy lifestyles (para 91c), tackle air pollution (para 181) and managing the impacts of climate change particularly in vulnerable areas (para 150a). It is important for local plans to take a strategic approach to maintaining and enhancing networks of habitats and green infrastructure (para 171).

14.2 As part of the evidence base to support the development of the Local Plan, the Council commissioned Groundwork in 2015 to produce a Green Infrastructure (GI) Strategy. This strategy suggests that in the Brentwood Borough, GI could be practically defined as including parks; open spaces; recreational sports facilities such as golf courses, cricket, rugby and football pitches; woodlands; wetlands; grasslands; rivers and canal corridors; allotments; cemeteries; and private gardens.

14.3 The GI strategy also highlights the importance of planning for Green Infrastructure at all spatial scales, nationally, regionally, locally and at a neighbourhood level and across a number of timescales (short, medium and long term). GI is considered important socially, economically and environmentally with a role in providing:

- a sense of local distinctiveness and beauty;
- space for eco-systems to develop and habitats for wildlife;
- an accessible and integrated network of green travel routes;
- places for outdoor sport, recreation, education and relaxation;
- areas for local food production – allotments, gardens and through agriculture
- natural spaces for accommodating climate change, including areas for flood alleviation and cooling urban heat islands.

- 14.4 The new Local Plan highlights the need to improve the linkages between formal and informal open spaces in the Borough and ensure that strategic green corridors are protected and where opportunities arise (for example through new development) that green infrastructure provision is enhanced.
- 14.5 Figure 14.1, sets out a working GI typology for this section of the IDP which is based upon the GI Strategy, Open Spaces, Sport and Recreation Study¹, Natural England's Green Infrastructure Guidance² and the council's policy position set out in the new Local Plan.

Figure 14.1 – Brentwood Green Infrastructure Typology

	Type of GI	Key Policy Elements
i)	Parks and Gardens	County Parks, Borough Parks and Recreation Grounds, Historic Parks and Gardens.
ii)	Ecological assets and Natural and Semi-Natural Greenspaces (urban / rural)	Special Sites of Scientific Interest (SSSI), Local Nature Reserves (LNR), Local Wildlife Sites (LoWS), Woodlands, Geological Assets, Grasslands, Other Assets.
iii)	Green and Blue Corridors	Main Rivers, Large Ordinary / Non-Main River Watercourses, Major Tributaries, Wetland, Hedgerows, Major Road Corridors, Major Rail Corridors, Cycling Routes / Network, Pedestrian Paths and Rights of Way, Protected Lanes.
iv)	Outdoor sports facilities and provision for children and teenagers	Natural green surfaces – tennis courts, bowling greens, sports pitches, golf courses, school and other institutional playing fields, and other outdoor sports areas. Green formal / informal recreation areas for children / teenagers.
v)	Amenity Greenspace	Amenity greenspace, Village Greens, Commons, other Informal Greenspace, Locally Designated Greenspace.
vi)	Allotments	Parish and borough council owned / managed.
vii)	Cemeteries and churchyards	Public and privately owned facilities.

- 14.6 Detailed specific issues relating to sport and recreational facilities (green surfaces primarily) are covered under the relevant chapter, although they are considered and listed as part of the wider Green Infrastructure framework. Technical information on Brentwood's GI sites has been obtained from a number of sources including:

- Special sites of Scientific Interest (SSSI) – Natural England Designated Sites

¹ Details to be confirmed

² Natural England's Green Infrastructure Guidance (NE176), Natural England, 2009

- Local Wildlife Sites (LoWS) – Brentwood Borough Local Wildlife Site Review December 2012 and LoWS Update 2016 – Essex Ecology Services Ltd
- Open Space Assessment - Ploszajski Lynch Consulting Ltd (2016)
- Historic Parks and Gardens – Historic England Listings
- Local Geological Sites – GeoEssex

PARKS AND GARDENS

OVERVIEW

14.7 According to the Parks Alliance¹, parks deliver value in many ways, including:

- Improved physical and mental health for users;
- Environmental benefits and contribution to sustainability, and
- Economic impact: through commercial activities, supporting tourism and property values.

Statistics suggest that £1bn of yearly savings in averted NHS health costs could be made if every household had equitable access to green space. Eight in 10 people with children under 10 visit parks at least once a month. In East England, 54% of children visit local urban parks in an average month.²

14.8 Within the current economic climate there are significant challenges to maintaining high quality parks and greenspaces. The Parks Alliance highlights three areas of critical concern:

a) Funding and innovation – dwindling resources for green spaces with the Fabian Society predicting a reduction in spending on parks by 60 per cent by 2020³.

b) Environment and sustainability - concerned about the general impact of climate change and working to mitigate its effects, and also the specific protection of UK species, regimes to prevent diseases, and the use of environmental management techniques to mitigate the impact of flooding and to conserve water.

c) Parks for health - in addition to being places of leisure and relaxation, for many, parks act as free gyms. Parks are open to and well used by the whole community, increasingly with additional facilities to support physical fitness. Parks and open spaces are a cost-effective means of maintaining physical and psychological wellbeing. They will play an increasing role in tackling problems of public health, including obesity, and the impact of social isolation.

14.9 Within the urban context, the seminal work on public parks and social renewal – ‘Park Life’ by Comedia and Demos indicates how important public parks are as an integral part of the public realm.⁴ Of the 20 recommendations within the Comedia report, a number remain relevant today in terms of infrastructure planning, including:

¹ The Parks Alliance is a not for profit membership body with representation from across the professional sectors with an interest in parks and greenspaces.

² Figures from <https://www.theparksalliance.org/stats/> - accessed 21st March 2017

³ The Fabian Society – Places to Be

⁴ Park Life – Urban Parks and Social Renewal – A Report by Comedia in association with Demos.

- Clearly defining the purpose of each park and open space.
- Developing planning policies for local space which is flexible and responsive to local needs.
- Investing in different forms of park management – direct provision, partnerships, voluntary management and trusts.
- Establishing ‘experimental funds’ for local park initiatives.
- Integrating sustainability and health agendas.

BRENTWOOD’S PARKS AND GARDENS

14.10 Brentwood is fortunate is having a wide range of parks and gardens, including two country parks (Thorndon and Weald), large Borough parks (Hatch Road Park, Bishop Hall Park, Merrymeade Park, Warley Park, St. Faiths Park and Hutton Park), and registered historic parks and gardens (at Thorndon and Weald Country Parks plus Warley Place). These parks and gardens are detailed below in Figure 14.2 below.

Figure 14.2 Park and Gardens

Types of Park and Gardens	Size (ha)	Description	Formal Policy Designations	Broad GI Classifications
Country Parks				
Thorndon Country Park	222.48	Formal Country Park split into Thorndon North – woodlands and Childerditch Pond and Thorndon South with its open parkland and wide ranging views. Ownership is split between the Woodland Trust and Essex County Council.	Green Belt, Country Park, Historic Park and Gardens, SSSI, LoWS, Ancient Woodlands, Important Site for Geology, Ancient Monument,	Strategic Green Infrastructure - Large Country Park with Informal and Natural Open Spaces, Grassland, Woodland and large Pond. Very significant GI asset.
South Weald Country Park	187.55	Formal County Park with woodland, lakes, hay and wildflower meadows, deer park, open grassland and spectacular views. The park is famous for its wildlife, including fallow deer, cattle, herons, mallard ducks and other water birds.	Green Belt, Country Park, Historic Park and Gardens, LoWS, Ancient Woodlands, Important Local Site for Geology,	Strategic Green Infrastructure - Large Country Park with Informal and Natural Open Spaces, Grassland, Woodland, Lakes and Meadows. Very significant GI asset.
Medium to Large Borough Parks				
Hatch Road Country Park	3.8	Located on the site of a former British Telecom depot, the site was designated a LoWS due to its value as a grassland site with botanical interest.	Green Belt, Borough Park, LoWS	Medium sized park with Informal and Natural Open Spaces, Primarily Grassland with tree and hedge features.
Bishop’s Hall Park	4.4	Park provides open green space for general recreation alongside senior and junior play	Green Belt, Borough Park, Recreation Facilities	Medium sized park with informal and formal recreational features

		facilities and hard courts. It is surrounded by trees and hedges. The park is also located close to the Brentwood Centre.		
Merrymeade Park	14.33	Merrymeade Country Park is managed by Brentwood Borough Council. The site is split into a number of fields, two of these being owned by Essex County Council and leased the Brentwood Borough Council and the other being owned by Brentwood Borough Council. The site is an oasis for wildlife close to the town centre and it is therefore managed primarily for nature conservation. This 34 ha site consists of four grassland fields, scrub, a small area of woodland and wetland habitats including a pond and stream.	Green Belt, Borough Park, LoWS	Large park with Informal and Natural Open Spaces, Predominately unimproved Grassland, with ponds, streams, hedgerow and scrub features.
Warley Country Park	21	Warley Country Park covers 21 hectares of open space for quiet informal recreation. The open space, which has been developed on former farmland, includes sizeable areas of naturally colonising secondary woodland, hedgerows, a stream and a pond.	Green Belt, LoWS, Borough Park	Large park with Informal and Natural Open Spaces, Primarily Grassland but with Woodland, Hedgerows, Pond and Stream features.
St. Faiths County Park	16	St Faith's has been managed by Brentwood Borough Council since 1999. Before this, it formed part of the grounds of St Faith's Hospital. The site is managed to benefit wildlife and biodiversity whilst still allowing informal public access. The park covers 16 hectares of attractive open grassland fields bounded by mature hedgerows. There is also small areas of scrub and wet woodland, watercourses and ponds.	Green Belt, LoWS, Borough Park,	Large park with Informal and Natural Open Spaces, Primarily Grassland, but with Pond, Stream, Hedgerow and Woodland features.
Hutton Country Park	37	The park covers 36 hectares, containing a large area of natural grassland, an area of ancient woodland, ponds, wetland and the River Wid, which forms the northerly border. Supporting a vast array of native flora and fauna and is thus managed as an area of conservation value in what is otherwise an area of vast intensive arable land and urban expansion.	Greenbelt, Local Nature Reserve (LNR), LoWS, Ancient Woodland, Borough Park,	Large park with Informal and Natural Open Spaces, made up primarily of grassland, woodland, ponds, and wetlands. The River Wid forms the northern boundary of the park.
Historic Parks and Gardens				

Weald Park	187.55	A late C17 and early C18 park and woodland, developed in the mid C20 as a country park. (list entry 1000747)	Green Belt, Country Park, Historic Park and Gardens, LoWS, Ancient Woodlands, Important Local Site for Geology,	Historic features and horticultural value.
Warley Place	11	Remains of the wild and natural garden created by the horticulturalist Ellen Willmott between the 1890s and her death in 1935. (List entry – 1000746)	Historic Park and Gardens, LoWS	Historic features and horticultural value.
Thorndon Country Park (Thorndon Hall)		The site of an early C18 park and woodland by Lord Petre, with mid C18 developments to park and pleasure grounds by Lancelot Brown and subsequent minor additions in the 1790s probably by Richard Woods, now a C20 country park and golf course. (List entry – 1000314)	Green Belt, Country Park, Historic Park and Gardens, SSSI, LoWS, Ancient Woodlands, Important Site for Geology, Ancient Monument	Historic features and horticultural values.

Thorndon Country Park - Overview

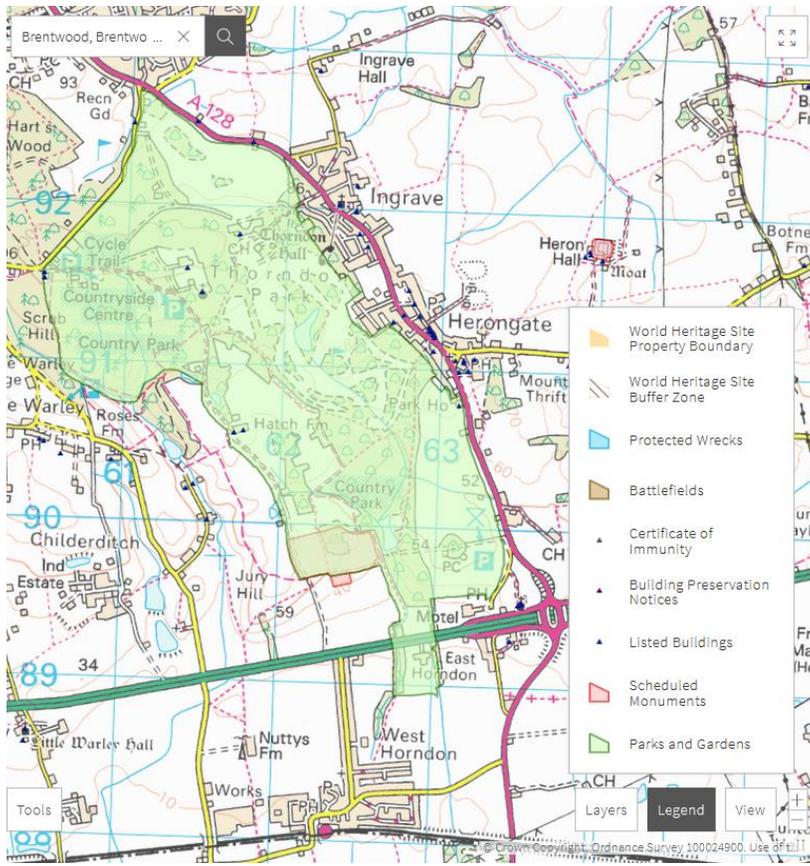
- 14.11 Thorndon Country Park is the largest park in the Borough at 222.48 ha. Formally the park is split into Thorndon North – woodlands and Childerditch Pond and Thorndon South with its open parkland and wide-ranging views. Ownership is split between the Woodland Trust and Essex County Council. The park has a number of facilities and features, including:
- **Thorndon North** – Countryside Centre (managed in conjunction with Essex Wildlife Trust), shop and tearoom and children’s Gruffalo trail. There are also walking routes, organised orienteering courses / routes and bike hire.
 - **Thorndon South** – Pavilion Cafe and barbecue area. Other activities / features include a dog activity trail and fishing at Old Hall Pond.
- 14.12 The Country Park is generally used for informal recreation. There is public access to all parts of the site, with four designated public footpaths and a designated public bridleway.
- 14.13 Thorndon County Park is covered (in full or in part), by formal planning policy designations including Green Belt, Historic Parks and Gardens, SSSIs, Local Wildlife Sites, Ancient Woodland, Important Local Site for Geology and an Ancient Monument. Thorndon Country Park is a strategic important area of green infrastructure for the Borough.

Thorndon Country Park – Historic Context

- 14.14 The country park is part of the original Thorndon estate and has a number of important heritage assets as detailed below in Figure 14.3.⁵ The first park of 300 acres was created in 1414 and based around the old Thorndon Hall. This was a deer park used for hunting. By the 18th Century the meaning of the term `park` changed to an emphasis on landscape rather than hunting. The 8th Lord Petre, an eminent horticulturist, designed a landscape plan for Thorndon, which was drawn up by Bourginion in 1733. Some of this plan was carried out before the 8th baron died at a young age. It included very formal areas alongside natural ones and had agriculture as an integral part (Old Thorndon Pastures). He cultivated many exotic plants and trees.
- 14.15 The 9th Lord Petre built a new Hall to the north of the estate (now privately-owned flats) and commissioned his own plan by Capability Brown to re-landscape this area - now used as a golf course. Such extravagancies bankrupted the family until the 12th baron turned their fortunes in the third quarter of the 19th Century. Agriculture became the focus of the estate. The agricultural depression of the late 1870s, followed by the destruction by fire of Thorndon Hall in 1878 led to the family relocating permanently to Ingatestone. When the 16th baron was killed in the First World War, the estate was broken up and sold off. The land in the current Country Park was acquired in 1939, 1951 and 1992.

Figure 14.3 Thorndon Country Park and Heritage Assets

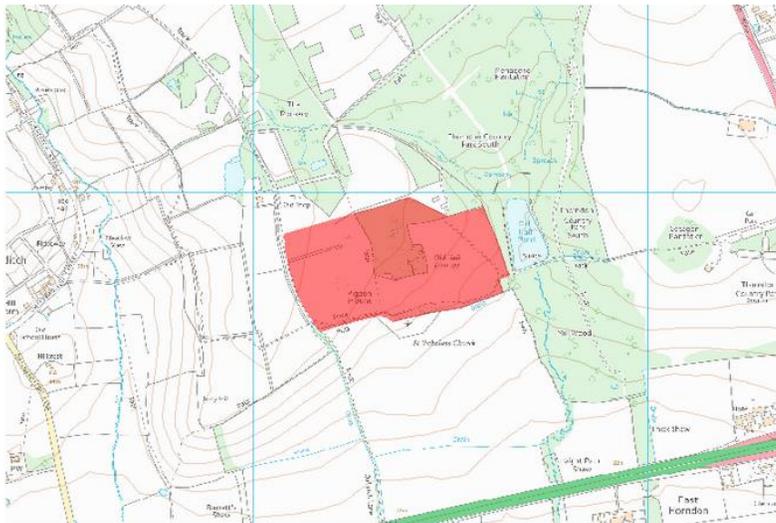
⁵ Information reproduced from Historic England mapping service,



- 14.16 The Register of Historic Parks and Gardens provides a Grade II* listing for Thorndon Hall historic park and gardens and indicates that the gardens associated with Thorndon Hall lie to the south and are laid to lawn set with a small circular stone basin. Within the woodlands which lie beyond the east and west fronts are two mounds which appear on the eighth Lord Petre's 1733 plan of the landscape. The park surrounding Thorndon Hall, which sits in the north-east corner of the site, is extensive and contains remnants of the early C18 layout, together with features of Lancelot Brown's work, all partly overlaid by C20 developments (including golf course). Below the new woodland and the golf course lie some of the oldest features of the Thorndon landscape. Located centrally in this southern section are Menagerie Plantation within which lies Old Hall Pond, and below it Mill Wood. The woodlands were developed from the mid C18 onwards although Old Hall Pond was retained from the early C18 formal scheme. The walled kitchen garden lies c 350m to the south-west of Thorndon Hall. It was built in this position when the Hall was erected in 1763 and remained in use as a kitchen garden until the C20. It was retained by the sixteenth Lord Petre when the rest of Thorndon Park was sold. The ground is laid to lawn and planted with a variety of specimen trees and shrubs.
- 14.17 According to the Historic England listings, the monument includes the above and below ground remains of Old Thorndon Hall and its associated gardens, including remains of the moated medieval manor and Old Hall and the area of gardens around

the house which formed the original landscaped gardens of the 16th century, partially redesigned in the 18th century. Figure 14.4 below provides information of the location of the ancient monument listing.

Figure 14.4 Old Thorndon Hall and Gardens – Ancient Monument



- 14.18 Listed structures at the Country Park include Thorndon Hall (Grade 1) and the Chantry Chapel and Mausoleum (Grade II*).

Thorndon Country Park - Woodlands and Grasslands

- 14.19 According to the Essex Woodland Project, Thorndon Country Park has several blocks of ancient woodland, parkland and plantations. Ancient trees are an outstanding feature. Giant oak and hornbeam pollards indicate that the area was once a deer park. Parts of park were historically covered by heathland, now a scarce habitat in Essex, with projects now progressing to restore the heathland habitats and also returning areas of the park to grassland and broadleaved woodland.⁶ The grasslands are managed for wildlife, landscape and recreation value. Short grass areas are suitable for organised events. Standard trees and wood clumps are maintained primarily for landscape value. Old Thorndon Pastures are managed under Countryside Stewardship as grazing units. Grazing has recently been reintroduced to the wood pasture in a bid to restore it to favourable condition.

⁶ Information reproduced from <http://www.essexwoodlandproject.org/woodlands/thorndon/> - accessed 20th March 2017.

- 14.20 The Forestry Commission England Woodland Management Plan for the park,⁷ outlines that the woodlands are managed for amenity, wildlife value and timber production (both coppice and high forest). Alien species (self-seeding sycamore, Turkey oak and cherry laurel) are routinely removed during felling operations. Structural diversity is maintained and natural regeneration is encouraged, along with planting as required.
- 14.21 Childerditch Wood is situated within Thorndon Country Park, west of Little Warley to the south of Brentwood. The wood is on a slope with a south-west facing aspect and covers an area of 9.5 Hectares. It is a notified SSSI. The wood has a mix of standard types but is largely Common oak high forest. Areas of the wood have been subject to replanting. Along the woods south-west facing edge are two substantial ponds. Upper Pond to the north-east of the area and Childerditch Pond to the south.

Thorndon Country Park - Geology⁸

- 14.22 The woodland has a complex geology consisting largely of London Clay with a band of Claygate Beds along the northeast east edge. An area of alluvial deposits lies to the north-west of the larger Childerditch Pond in the valley with a small area of Head between the alluvial deposits and the smaller pond. There is a small area of head to the north of the smaller pond and also a band of Head to the east of the larger pond to the edge of the wood. There is a slither of glacio-alluvial sand and gravel on the north-east edge of the wood towards the sand and gravel pits.
- 14.23 Thorndon Country Park North and Little Warley Common have a varied geology, the underlying rocks providing evidence of two periods of our distant past. The oldest surface rocks date back to the Eocene period and consist of London Clay, Claygate Beds and Bagshot Sands, three types of sediment laid down in a sub-tropical sea some 50 million years ago. There are no permanent exposures of these rocks although Bagshot Sand is frequently visible in the roots of fallen trees at the northern end of the country park.
- 14.24 To the south of the park and on Little Warley Common are large spreads of glacial gravel which date back to the middle of the Ice Age. This gravel was deposited some 450 000 years ago by colossal torrents of melt water issuing from the Anglian ice sheet, the edge of which was then situated only a short distance north of here. At that time ice covered almost all of Britain to a maximum thickness of over one kilometre. The gravel therefore provides evidence of an exceptionally cold period of the ice age, a time when Essex was barren of virtually all life – in contrast to the flora and fauna that can be seen at Thorndon today.

⁷ Forestry Commission England Thorndon Country Park Woodland Management Plan 1st April 2012 to 31st March 2032

⁸ Majority of geology information from <http://www.geoessex.org.uk/brentwood.html>

Thorndon Country Park - Ecology and Biodiversity

- 14.25 The park attracts a large number of woodland birds and sees more than its fair share of passage migrants and winter visitors. For example, large flocks of siskins and redpolls often gather in the birches, and bramblings can be seen near to the centre feeding on beech mast. It also hosts an unusually wide variety of butterflies, including the uncommon purple and white-letter hairstreaks.
- 14.26 The park features two official Local Wildlife Site (LoWS) designations:
- Bre92 – Thorndon Country Park North – generally managing as high forest. When harvesting mature Beech and Pine, favour replacement by a greater proportion of native broadleaved species, although retaining some Beech and Pine is beneficial to bird life. Key management issues include visitor number and also the management of Great Crested Newts which are known to inhabit several ponds.
 - Bre106 – Thorndon Country Park South – desirable management - consider grazing (ideally sheep) on Jury Hill and adjacent grasslands. Maintain restoration of old parkland landscape. Management issues include high visitor numbers.⁹

South Weald Country Park

- 14.27 Measuring 187.55 ha, South Weald has woodland, lakes, hay and wildflower meadows, deer park, open grassland and spectacular views. The park is famous for its wildlife, including fallow deer, cattle, herons, mallard ducks and other water birds.
- 14.28 The park has four main car parks, toilet facilities and a newly refurbished visitor centre with shop and café. Visitors can also borrow 4/4 all-terrain mobility scooters to access various parts of the park on a free basis if registered with shop mobility. The park is also a popular destination for educational visits and social events such as weddings and birthday parties, for which there is supporting services available. Popular park activities include the Stick Man trail, picnics, cycling and walking along numerous trails, horseriding and birdwatching.
- 14.29 Weald County Park is covered (in full or in part), by a number of formal planning policy designations, including Green Belt, Historic Parks and Gardens, LoWS, Ancient Woodlands, and an Important Local Site for Geology. In terms of its broad Green Infrastructure classification the park would be considered a strategic green

⁹ Information reproduced from Brentwood Borough Local Wildlife Site Review 2012 Final December 2012 – Essex Ecology Services Ltd

infrastructure asset with informal and natural open spaces, grassland, woodland, lakes and meadows.

Medium to Large Borough Parks

14.30 Key medium to large Borough parks include:

Hatch Road 3.8ha – habitats include grassland, hedgerow, scrub and woodland. LoWS. Management plan in place since 2014.

Bishop’s Hall 4.4ha – four grass fields separated by mature trees and hedges, play equipment and car park, adjacent to Hatch Road Park. Management plan since 2014.

Merrymeade Park 14.33ha – consists of four grassland fields, scrub, a small area of woodland and wetland habitats including a pond and stream. Significant wildlife interest and close to Town Centre

Warley Country Park 21ha – large area of open space used for informal recreation - developed on former farmland, includes sizeable areas of naturally colonising secondary woodland, hedgerows, a stream and a pond.

St. Faiths Country Park 16ha – St Faith's has been managed by Brentwood Borough Council since 1999. Before this, it formed part of the grounds of St Faith's Hospital. The site is managed to benefit wildlife and biodiversity whilst still allowing informal public access. The park covers 16 hectares of attractive open grassland fields bounded by mature hedgerows. There is also small areas of scrub and wet woodland, watercourses and ponds.

Hutton Country Park 37ha – habitats include woodland, hedgerow, scrub, grassland, ponds, rivers and streams. currently Brentwood’s only LNR. LNR’s are areas of local importance that may contain species or features that are locally rare or declining. These areas are protected and managed to provide accessible natural green space and opportunities for the public to learn about and study nature.

Further information is available in Figure 14.2 above.

Historic Parks and Gardens

14.31 Information on Thorndon Country Park is discussed in detail under para 14.16.

14.32 Weald Park is a Grade II historic park and garden originating from the late C17 and early C18 park and woodland, developed in the mid C20 as a country park. The garden and pleasure grounds lay to the east of the site of the hall and survive today (2000) as earthworks and one set of brick steps, representing the C19 terraced formal garden

located between the hall and the Belvedere Mount which lies c 100m to the east, edged by a ha-ha wall on its eastern boundary. The C19 formal gardens used the walled enclosures from the C16 and C17 garden as their basis (CL 1897). The raised mount was created in the early C18 by Samuel Smith at which time it was surmounted by a Belvedere tower. The mount at that time was laid out in a complex series of paths and planting; this was softened into a wilderness during the C19. Some of the planting from the late C19 survives although only the base of the tower remains.¹⁰

- 14.33 Warley Place is a Grade II historic park and garden which contains the remains of the wild and natural garden created by the horticulturalist Ellen Willmott between the 1890s and her death in 1935. One of Brentwood’s hidden assets, the site is maintained as a nature reserve by Essex Wildlife Trust.

Infrastructure Challenges

- 14.34 Figure 14.5 below provides a list of the main maintenance, development or infrastructure issues connected to each park site. The majority of information was obtained from the open spaces audit completed in 2016.

Figure 14.5: Current Park Issues

Types of Park and Gardens	Infrastructure Issues
Country Parks	
South Weald Country Park	Open spaces audit would seem to indicate that some improvements could be made to paths and roads.
Thorndon Country Park	Open spaces audit would seem to indicate that some improvements could be made to paths and roads.
Medium to Large Borough Parks	
Hatch Road Country Park	In the Open Spaces Study this park scored particularly low for the quality of its entrance, paths and roads, grassed areas, general tidiness, safety and security and parking and accessibility.
Bishop’s Hall Park	Improvements to amenities and park features.
Merrymeade Park	Site scores low for general tidiness on the Open Spaces Audit. LoWS review indicates halting further expansion of scrub into grassland and manage hedgerows to maintain thick network of scrub habitat
Warley Country Park	LoWS review indicates a need to maintain the balance of scrub blocks within rough grassland, preventing excessive spread of scrub. Park scores low for parking and access, general tidiness and the quality of the entrance.
St. Faiths County Park	Poor scorings for the quality of the entrance, footpaths, boundaries, general tidiness, security and accessibility. LoWS assessment suggests a need to maintain and, if possible, extend network of thick hedgerows. Manage grasslands to maximise diversity of grassland sward types.
Hutton Country Park	LoWS audit indicates a need to manage grasslands to maintain a mosaic of grassland types; maintain thick hedgerows
Historic Parks and Gardens	
Weald Park	Continuing to support the work of Essex WT in wildlife preservation and enhancement.
Warley Place	The LoWS places a strong emphasis upon maintaining the historic environment and landscape.

¹⁰ Information from <https://historicengland.org.uk/listing/the-list/list-entry/1000747>

Thorndon Country Park (Thorndon Hall)	Need minimize impact on important heritage assets, while supporting visitor interest.
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IMPLICATIONS OF GROWTH AND RESOURCES

- 14.35 Population growth through new housing is likely to place additional visitor pressures on local parks. It is too early to quantify the full impact of this growth, but it would be advisable to monitor usage levels and establish a range of prioritised improvements / interventions as part of the development of the Council's Leisure Strategy. There are also clear opportunities to build new strategic green infrastructure connections across the Borough. One of the most important being the connection through Dunton Hills Garden Village to strategic green infrastructure to the north and south. There are also other opportunities across the Borough subject to individual site plans.

ECOLOGICAL ASSETS

OVERVIEW AND HEADLINES

14.36 As with a number of sections within the Green Infrastructure chapter there are a cross-over of locations and classifications. For the purposes of this section, ecological assets are classified as Special Sites of Scientific Interest (SSSI), Local Nature Reserves (LNR), Local Wildlife Sites (LoWS), Ancient Woodlands and Geological Assets. These are some of the Borough’s most important places for scientific interest, wildlife, geology and environmental diversity.

Sites of Special Scientific Interest (SSSI)

14.37 In terms of definitions a Site of Special Scientific Interest (SSSI) is the land notified as an SSSI under the Wildlife and Countryside Act (1981), as amended. SSSI are the finest sites for wildlife and natural features in England, supporting many characteristic, rare and endangered species, habitats and natural features. Within the Brentwood Borough there are three SSSI which are detailed below in Figure 14.6¹.

Figure 14.6: Sites of Special Scientific Interest (SSSI)

SPECIAL SITES OF SCIENTIFIC INTEREST (SSSI)	Size (ha)	Description	Issues
The Coppice, Kelvedon Hatch	9.30	The Coppice, Kelvedon Hatch, is an ancient semi-natural broad-leaved wood, developed over a complex geology of Claygate Beds, Bagshot Beds and Head, in the small valley of a tributary of the River Roding. Two main woodland types are present, base-rich springline Alder Woodland and Oak-Hornbeam Woodland. The base-rich springline Alder Woodland is uncommon, both nationally and in Essex, and the Coppice contains a more diverse flora than other local examples of this stand type.	
Curtismill Green, Navestock	47.8	Curtismill Green is an area of unimproved grassland and scrub about five miles west of Brentwood on soils derived from London Clay and Chalky Boulder Clay. There are patches of valley gravel and alluvium locally. It is a small, separate relic of the ancient Forest of Waltham, of which Epping Forest is the largest surviving fragment. The varying soil conditions give rise to both damp and dry grassland containing several species which are uncommon, decreasing or unusual in the county.	Parts of the SSSI has been described as unfavourable declining - AGRICULTURE - INAPPROPRIATE CUTTING/MOWING,LACK OF CORRECTIVE WORKS - INAPPROPRIATE SCRUB CONTROL,PUBLIC ACCESS/DISTURBANCE - PUBLIC ACCESS/DISTURBANCE,VEHICLES - VEHICLES - OTHER,

¹ Information obtained from <https://designatedsites.naturalengland.org>

Thorndon Park	148.52	Thorndon Park is an area of semi-natural broad-leaved woodland and ancient parkland supporting a range of habitat types developed over Claygate and Bagshot Beds and gravels to the south of Brentwood. The woodland includes the Lowland Birch-Sessile Oak and Pedunculate Oak- Hornbeam types and the site supports an outstanding assemblage of Beetles (Coleoptera) including one species which is rare and vulnerable in Britain.	
Total	205.62		

Local Nature Reserves

- 14.38 Local authorities can create Local Nature Reserves (LNR) if they control the land and intend for the site to be open (at least in part) to the public. A site can be chosen as locally important for wildlife, geology, education and general enjoyment (without disturbing wildlife). A wide variety of types of land can make suitable LNRs. Brentwood has one formally designated LNR – Hutton Country Park – which has been owned by Brentwood Borough Council since 1997. The 36ha park supports a large range of native flora and fauna and contains a large area of natural grassland, an area of ancient woodland, ponds, wetland and the River Wid, which forms the northerly border of the site.

Local Wildlife Site (LoWS)

- 14.39 Local Wildlife Sites are areas of land that are especially important for their wildlife. They are some of our most valuable wildlife areas. Local Wildlife Sites are identified and selected locally using scientifically-determined robust criteria and surveys. Brentwood is very fortunate in having a wide range and number of LoWS (147 in total). The list of LoWS is available at Appendix x to this chapter. A number of LoWS sites are within close proximity to development sites or contained within large site allocations. These LoWS will need to be afforded strong protection as part of any development proposals. A wide range of maintenance and enhancement works has also been identified for a number of LoWS sites.
- 14.40 There are also a number of Potential LoWS identified in the 2012 study. These are detailed below in Figure 14.7. It can be noted that two sites in particular (highlighted in blue) – Brentwood Community Hospital and Green Meadows are within close proximity to development sites and further analysis is required to potentially support full LoWS designation.

Figure 14.7: Potential Local Wildlife Sites

Potential LWS	Name	Detail
BrePLoWS1	Stawberry Wood	This may well be an old, possibly ancient, piece of woodland. However, it has been almost totally coniferised, removing the semi-natural canopy, understorey and ground flora to the extent that it is now a poor ecological unit. However, it lies within an important cluster of old woodland sites and restoration of a semi-natural broadleaved canopy could see relatively quick improvements in its wildlife value, provided that the woodland soil profile is adequately protected, and could easily see it promoted to the full LoWS register.
BrePLoWS2	Beredon's Common (Coombe Green)	At first sight this wood of Pedunculate Oak (<i>Quercus robur</i>), birch (<i>Betula</i> spp.) and Sycamore (<i>Acer pseudoplatanus</i>) might appear to comprise a developing ecological link between Foxburrow Wood and Coombe Wood LoWS. However, the origin of this site lies in open, rough grassland as an ancient village green. The land is still a Registered Common (CL 103) and Ordnance Survey maps of 1881 show it to be open, rough ground which, knowing the sandy nature of the underlying soils, might have been heathy in nature. Given the scarcity of old heathland in Essex, it is suggested that the value of this site lies in recreating open, heathy vegetation, perhaps with scattered trees, rather than promoting it as a woodland link between the two adjacent LoWS.
BrePLoWS3	School Road Wood East	This Site comprises a strip of old woodland running along the southern side of a former country lane, now blocked off to prevent access by traffic. It follows the parish boundary and is, to some extent, a continuation of the Reading Springs LoWS to the west, although it is less clearly ancient in origin. It is suggested that this site has great potential as a woodland access site for less able persons, including wheelchair users, using the still present tarmac path of the old road as a means of passing along the woodland strip. This could allow good opportunities for this section of the public to experience and enjoy woodland ecology in a safe and easily accessible environment. In order to fulfil this potential, some work on clearing the tarmac track would be needed, along with improved parking arrangements at either end.
BrePLoWS4	Hook End	These two fields comprise a mosaic of dry, acid grassland, taller rough vegetation on more neutral soils, Bramble (<i>Rubus fruticosus</i> agg.) scrub and some wet woodland associated with a small spring feature in the southern section. This site might represent old grassland habitat, although it is seemingly lacking in plants indicative of such conditions. However, further research into the site's history may reveal evidence of this. The habitats look ideal for reptiles and good populations of these BAP species could be sufficient to promote the site to full LoWS status. The invertebrate populations may well also repay closer inspection. The Site is in a location that would make it attractive to housing developers and these outstanding ecological queries should be addressed in any associated ecological appraisal of the Site.

BrePLOW5	Hampden Wood	<p>This small wood, being promoted as an urban nature reserve by Brentwood Council, is undoubtedly of some nature conservation value in the local context, but it is felt that its qualities do not merit the level of county importance, which is implied by full LoWS status.</p> <p>The canopy comprises rather badly storm-damaged Sweet Chestnut (<i>Castanea sativa</i>), with some London Plane (<i>Platanus x hispanica</i>) and planted but maturing Pedunculate Oak (<i>Quercus robur</i>) and Beech (<i>Fagus sylvatica</i>), whilst Rhododendron (<i>Rhododendron ponticum</i>) and Laurel (<i>Prunus laurocerasus</i>) occur in the understorey. Bamboo plants in the ground vegetation further enhance the idea that this is a heavily landscaped wood. Reference to old Ordnance Survey maps suggests that this is a remnant of ornamental woodland associated with a large property called Hampton House, which stood where the houses of Hamilton Crescent now stand. Management to increase the quantity of native tree and shrub species, with the removal of invasive exotics such as Rhododendron, Laurel and Bamboo would increase the ecological value of the site, although it is appreciated that this may be resisted by local residents who use the wood and value its more ornamental qualities.</p>
BrePLOW6	Shenfield Common	<p>The common (actually no longer a piece of registered Common Land) is clearly popular as a place for local informal recreation, experiencing woodland wildlife and popular activities such as feeding the ducks on the large pond. However, there are several other woods nearby (e.g. Thorndon Country Park) that better fulfil the role of accessible natural woodland greenspace and so this criterion has not been applied to Shenfield Common.</p> <p>The true potential value of Shenfield Common lies in its origin as a large tract of rough, open and probably heathy grassland. As recently as 1920, the common was largely open, with a scattering of trees at the southern end but since then it has tumbled down to species-poor oak woodland. In places within the ground flora, traces of the acid grassland vegetation can still be seen. Public opinion would probably resist the complete clearance of this recent woodland cover to restore heathland. However, this is an Essex and England BAP habitat and the restoration of a more open canopy, to create a parkland habitat under which acid grassland and heathland can flourish once more ought to be achievable.</p>
BrePLOW7	Brentwood Community Hospital Wood	<p>The majority of this wood has its origins as recent woodland and plantation associated with the parkland estate of Middleton Hall, now a school lying to the west of the wood. By the 1950s, housing was starting to encroach on the previously open countryside and the first signs of woodland growth are apparent (from old Ordnance Survey maps). The ornamental origins of the wood probably account for the abundance of Laurel (<i>Prunus laurocerasus</i>) in the understorey, whilst the canopy is dominated by Pedunculate Oak (<i>Quercus robur</i>). Other ornamental introductions include Sycamore (<i>Acer pseudoplatanus</i>), Beech (<i>Fagus sylvatica</i>), Yew (<i>Taxus baccata</i>) and Spotted Laurel (<i>Aucuba japonica</i>).</p> <p>The status of this wood is similar to Hampden Wood (BrePLOW5) – it is a useful and no doubt locally valued pocket of urban woodland but is not of a sufficient standard to currently merit full LoWS status. If its use as an educational or recreational resource is enhanced, along with improvements to the composition (shifting the balance away from exotics such as Laurel) then this site might qualify for full LoWS status under the accessible natural greenspace criterion. Protection and enhancement of woodland.</p>
BrePLOW8	Button Common	<p>This Site forms part of a Registered Common (CL 82) and effectively comprises part of the ancient village green complex for Herongate. Such pieces of land were typically spared agricultural improvement during their communal use but in recent decades nutrient enrichment has brought about a change in the floral composition of this Site. This may be associated with hay cropping, although it appears the site is still occasionally used for public events, echoing its traditional use.</p> <p>Realising the potential of this ancient grassland site may depend on the viability of the residual seed bank in allowing the recreation of species-rich grassland and also control over management practices to promote a flower-rich sward once more.</p>

BrePLoWS9	Hutton Hall Meadow	This is thought to be a piece of old grassland, once used as a venue for village social events and a former Rabbit warren associated with the adjacent Hutton Hall. However, it now lies unmanaged, with a rough grassland sward and an ever-increasing amount of scrub growth. In order to get this grassland back into good condition, management needs to address soil nutrient enrichment, the need to cut or sympathetically graze the site and the control of scrub. However, the presence of reptiles and important invertebrate populations may also be an issue, which should be subjected to appropriate survey work prior to establishing a new management regime.
BrePLoWS10	New Bladen's Wood	The 1839 parish tithe map for Ingrave shows this strip to be wooded, raising the possibility that this woodland site is a lot older than it currently appears. Today, the canopy comprises relatively young planted broadleaved standards, with no trees of any great age present. Regardless of its past history, as the current woodland canopy matures, along with diversification of the understorey/scrub layer, this Site should develop into a useful link between Bladen's Wood, Primstock and Little Bladen's Wood, all of which are thought to be ancient.
BrePLoWS11	Green Meadows	This rough grassland site appears to have lain fallow for well over 20 years and is now succumbing to scrub invasion. Sites such as this can develop significant reptile and invertebrate populations and appropriate survey work would be desirable to help quantify this potential interest. Significant Protection and Enhancement

Ancient Woodlands

- 14.41 Ancient woods are considered our richest land-based habitat for wildlife. They are home to more threatened species than any other. Because they have matured and slowly changed over such long timescales, ancient woods have unique and special features. Their soils remain relatively undisturbed by human activities, keeping layers laid down over centuries of falling leaves and providing a home for hidden communities of fungi, invertebrates and dormant seeds. A closely-knit network of plants and animals, some of which are rare and vulnerable, also depend on the stable conditions ancient woodland provides².
- 14.42 The Woodland Trust has identified a number of proposed Local Plan development sites which may have an impact on ancient woodland and will require substantial protection. These include:
- Arnold's Wood Complex
 - Barrack Wood / Donkey Lane Plantation
 - Hobbs Hole
 - Clement's Wood
 - Codham Hall Woods

These sites are also LoWS.

Geological Assets

² Information reproduced from the Woodland Trust.

- 14.43 Brentwood has a small range or local geological assets which are detailed below in Figure 14.8. This information has been reproduced from GeoEssex.org. There are no Local Geological Sites or geological SSSIs.

Figure 14.8 – Other Geological Sites

BRENTWOOD. Former pit of Brentwood Brickworks (TQ 586 932)

Classic site in the London Clay/Claygate Beds that has produced a large number of fossils since the 1920s, many of which are now in London's Natural History Museum. It has been cited in numerous scientific papers. It ceased working and became overgrown in the 1980s and is now occupied by an industrial estate. The steep sides of the pit can still be seen but no access is available. An historical site only.

BRENTWOOD. Harts Wood (TQ 603 923)

Potential exposures of Warley Gravel and Bagshot Sand. Exposures may be available in ravines or stream banks.

BRENTWOOD. Thorndon Country Park (includes Little Warley Common) (TQ 604 915)

Thorndon Country Park has some interesting landforms which enable the geology to be appreciated. To the south a spread of glacial gravel is dissected by several streams, which have cut through the Claygate Beds exposing the underlying London Clay. Glacial gravel is well exposed in a gravel cliff at the east end of the park with a signboard explaining the geology. A smaller exposure of glacial gravel exists in a gravel pit at Scrub Hill on Little Warley Common to the west. A geological trail guide is being drafted.

GREAT WARLEY. Coombe Green Sand Pit (TQ 576 904)

In a triangular wood bounded by three lanes is a former sand pit with minor exposures of Bagshot Sand. The pit was visited by the Geologists' Association in 1915 and the director noted that it was very fine sand with a great abundance of the minerals epidote and blue tourmaline.

INGATESTONE. Ingestone Boulders (TQ 6511 9967 and TQ 6511 9959)

Two well known sarsen stones are at the junction of the High Street and Fryerning Lane (TQ 6511 9967), the largest one standing one metre (3'3") above ground. Another stone is situated a short distance away adjacent to the south door of St. Edmund and St. Mary Parish Church in the High Street (TQ 6511 9959). The latter stone stands 90 centimetres (3 feet) above the ground and the church guidebook states that it was originally buried beneath the north wall. Local legend claims that these three stones were once part of a single large boulder but sarsens are extremely tough rocks and there is no sign of freshly broken surfaces. They were undoubtedly separate finds; glacial erratic boulders ploughed up from local fields or more likely excavated from the local gravel pits around Fryerning and brought to the town centre for practical or religious reasons.

KELVEDON HATCH. The Coppice (TQ 573 991)

This public woodland has minor exposures of Warley Gravel and Bagshot Sand in the valley sides.

NAVESTOCK. Millennium Stone (TQ 5460 9613)

A giant boulder of ferricrete sits on a concrete plinth by the road. It is 2.1 metres by 1.5 metres (7 feet by 5 feet) in size and was placed here in 2000 to mark the Millennium. It was excavated from a nearby field.

SOUTH WEALD. Langtons Gravel Pit (part of Weald Country Park) (TQ 577 947)

The former gravel pit at Langtons is a classic geological site that has been cited in numerous scientific papers for over a century because of the former exposures of the 'Bagshot Pebble Bed', the origin of which is controversial. The Bagshot Pebble Beds is at the junction of the Bagshot Sand and the overlying Warley Gravel (also known as Stanmore Gravel or 'pebble Gravel'). No gravel is currently visible and this is an historical site only. The former pit is occupied by Langtons Pond.

KEY ISSUES

- 14.44 Summary of key resultant issues for Green Infrastructure planning:

- Consider measures to protect and positively support degraded SSSI.
- Important to protect and enhance LoWS – maintenance issues to be included within GI cost programming.
- Consider designation of potential wildlife sites – particularly sites within close proximity to Local Plan allocations.
- Introduce additional protective measures for ancient woodland to ensure development sites do not adversely impact on sensitive environments and introduce appropriate mitigation measures.

GREEN AND BLUE CORRIDORS

OPPORTUNITIES

- 14.45 This part of the chapter focused briefly upon the opportunities of green and blue corridors. Within the context of the Brentwood Borough this relates to:
- Road and rail corridors where there is opportunity to promote wildlife and habitat connectivity to the wide green grid;
 - Watercourses – established and new
- 14.46 Brentwood is well served by rail lines and connectivity. Organisations such as Network Rail have been working in partnership with Highways England, Natural England and The Wildlife Trusts through the Green Transport Corridors project to forge new approaches to managing the transport ‘soft estate’, to improve safety and performance on the network and benefit wildlife. Working towards net positive biodiversity is one part of this.
- 14.47 The Green Transport Corridors project feeds into the work of the Linear Infrastructure Network, which has set out how incorporating green infrastructure into linear infrastructure.¹
- 14.48 There are clear opportunities to make better use of Brentwood’s rail and road infrastructure to support wildlife and link to the wider infrastructure network.
- 14.49 It is recognised that rivers, streams, ditches and wetland support a diverse range of plants and animals. This includes marginal and bankside vegetation as well as instream features. Rivers and streams often provide a wildlife corridor link between fragmented habitats.
- 14.50 The Borough forms the headwaters of four key watercourses which drain the area: the River Wid, the River Ingrebounre, the River Roding and the River Mardyke. There are opportunities to enhance these blue infrastructure features as part of a wider Green Infrastructure strategy.
- 14.51 The proposed Dunton Hills Garden Village site includes water features (natural and man-made) as well as a natural stream. This is a key opportunity site to maximise linear blue and green infrastructure opportunities.
- 14.5x **Protected Lanes**

¹ Section Information obtained from <https://www.networkrail.co.uk/communities/environment/sharing-railway-wildlife/managing-habitats-railway/>

OUTDOOR SPORTS

OPPORTUNITIES

14.52 For information on outdoor green sports infrastructure, please see the Sports Chapter of the IDP.

14.53 This section of the IDP will be updated in due course.

AMENITY GREENSPACE

OPPORTUNITIES

- 14.54 The current Replacement Local Plan, lists sites within the Borough with the designation 'Protected Urban Open Spaces'. These are sites which have special protection from development. The Plan text reads: -

"Within the built-up areas of the Brentwood Borough, permission will not be granted for development of land allocated on the proposals map as Protected Urban Open Space or other previously undeveloped land."

- 14.55 This designation covers locations which are variously classified under different headings (for example play pitches). There are also smaller areas within housing estates (particularly Council estates) which have a similar classification and are used for informal recreation.
- 14.56 A further audit is required of these sites as part of the Green Infrastructure database. There may be opportunities to introduce environmental enhancements to various designated sites.

ALLOTMENTS

OVERVIEW

14.57 The National Allotment Society provides a definition of an allotment as:

'an area of land, leased either from a private or local authority landlord, for the use of growing fruit and vegetables. In some cases this land will also be used for the growing of ornamental plants, and the keeping of hens, rabbits and bees. An allotment is traditionally measured in rods (perches or poles), an old measurement dating back to Anglo-Saxon times. 10 poles is the accepted size of an allotment, the equivalent of 250 square metres or about the size of a doubles tennis court'.¹

If an allotment is on land owned by a local authority then it will either be classified as a statutory or temporary site. Statutory sites are protected by the Allotments Acts, in particular the Small Holdings and Allotments Act 1908.

14.58 Government has also set out the importance of allotments in updated guidance on allotment disposal, stating that allotments are valuable community spaces that provide people with the opportunity to enjoy regular physical exercise; meet new people in their neighbourhood; and benefit from a healthier diet, regardless of income. Therefore, there are many legal and policy safeguards in place to make sure that their disposal is properly and thoroughly handled by the Secretary of State.² National planning policy also highlights the role that allotments can play in enabling and supporting healthy lifestyles (NPPG para 91c).

14.59 Councils cannot dispose of statutory allotment land without the Secretary of State's consent. Section 8 of the Allotments Act 1925 states –“Where a local authority has purchased or appropriated land for use as allotments the local authority shall not sell, appropriate, use or dispose of the land for any purpose other than use for allotments without the consent of the Secretary of State”.

¹ <https://www.nsalg.org.uk/allotment-info/>

² Department for Communities and Local Government 'Allotment disposal guidance: Safeguards and alternatives' January 2014

EXISTING ALLOTMENTS AND STANDARDS

- 14.60 The National Allotment Society has recently indicated that some 90,000 people are in the queue for an allotment around the county, with some expected to wait as long as 40 years for a plot.³ The PLC report on Sport, Leisure and Open Spaces, indicates that the national under-provision is echoed by comments by Brentwood allotment holders that they have a waiting list for plots equating in total to between 8% and 10% of the total plots currently available⁴.
- 14.61 There are no currently nationally adopted standards of provision for allotments. The old Planning Policy Guidance Note 17 (PPG17), referred to a standard of 0.2ha per 1000 population for allotments. The National Society of Allotment and Leisure Gardeners (NSALG) recommends a standard equivalent to 0.23ha of allotments per 1000 people.
- 14.62 Allotment sites owned by local authorities can be designated as 'statutory' or 'temporary' where 'statutory' sites are subject to some protection under the Allotments Act 1925.[107] 'Temporary' sites have no security beyond the usual planning system requirements. As a result of these differences, the designation of a site is important to local authorities and allotment holders alike. The Council is currently undertaking work to clarify statutory and temporary status sites within the Borough.
- 14.63 It was reported in the PLC report on Open Space, that within the Borough there are a total of 15 allotment sites providing approximately 770 plots of various sizes totally 12.57 ha, which translates to approximately 163 sqm per plot, below the standard allotment plot measure of 250 sqm. Or alternatively, the Borough contains the equivalent of 503 standard plots in total. The below standard level of plot sizes arises from a number of factors, including popular sites where standard plots have been subdivided to help reduce waiting lists or where site boundaries and shape make exact division impractical.
- 14.64 It is considered that the PLC assessment is potentially an under-estimate of allotment sites and the figure of total hectareage is potentially closer to circa 16-17ha. Further information on allotment calculations is included as Appendix x.
- 14.65 Based upon a Borough population of 73,601 (2011 Census), and 16ha of allotment land this equates to circa 4600 people per hectare of allotments or 0.22ha of allotments per 1000 people, which is broadly on par with the old PPG17 standard and NSALG recommended standard.

³ <https://www.telegraph.co.uk/news/2018/08/11/allotments-way-life-not-plot-land-says-national-society-battle/>- the demand for 90,000 plots is above the current 330,000.

⁴ Ploszajski Lynch Consulting Ltd (PLC) Sport, Leisure and Open Space Assessment Final Report August 2016.

IMPLICATIONS OF GROWTH

- 14.66 The Local Plan and associated housing-led allocations will lead to an increased population and there will be a need to consider options to link development with appropriate levels of green, open space and recreational infrastructure. Within the current mix and range of allotments further engagement work is required on understanding whether the current allotment infrastructure have opportunities to accommodate additional growth - estimated to be about circa 1ha (see Figure xx below) of potential need on the basis of population projections linked to none strategic sites.
- 14.67 As the Council undertakes further work on clarifying the legal status of allotments, it makes sense to establish a comprehensive database, review capacity and expansion options and collate a list of allotment improvement requirements. It is understood that a small number of allotments scored fairly-low in the historic work by PLC on facilities.
- 14.68 In relation to large and strategic housing allocations, opportunities may be available to provide new allotment space as part of the green infrastructure mix for particular developments. The development of new allotments will not only require the supply of cultivatable land, but also the provision of main water, car parking and security measures, such as fencing. Figure 14.9 below provides a headline assessment of additional allotment land requirements and selected strategic sites, using standard size plots, recommended standards per 1000 population and estimated development derived population growth.

Figure 14.9: Potential Space Requirement – Allotment Land

Site Allocation	Population Forecast ⁵	Ha requirement ⁶	Plots ⁷ (rounded figures)
All	17,040	3.92ha	157
Dunton Hills Garden Village	8,400	1.93ha	77
Officer's Meadow and Surrounds	1980	0.46ha	18

⁵ Dwelling forecast x 2.4 people per dwelling (Census 2011).

⁶ Population estimate divided by 1000 x 0.23

⁷ Ha requirement x 10000 divided by 250sqm (standard allotment plot)

West Horndon Industrial Estates	1392	0.32ha	13
Warley Depot and Ford	1135	0.26ha	10
Other Locations	4133	0.95ha	38

FINANCIAL CONSIDERATIONS

- 14.69 If allotments are provided on site as part of a development, developers should pay for the future maintenance and management of the allotments and arrange for a management body to undertake that responsibility indefinitely. Where, land is transferred to the Borough or parish councils an agreed maintenance contribution should be made. It is expected that the developer will maintain the allotment for twelve months before it transfers it to the Borough or relevant parish council with the payment of a commuted sum to cover 20 years maintenance. Developer contributions for off-site provision could include the enhancement of nearby allotment facilities.
- 14.70 Part B of the IDP includes further detail on estimated commuted sums for maintenance of potential new allotments.

Churchyards and Cemeteries

KEY HEADLINES

14.71 Churchyards and cemeteries play an important role in the provision of greenspace within often congested urban environments. Their GI role tends to relate to wildlife / habitat promotion, quiet contemplation and informal recreation. Figure 14.10 has been developed from data contained within the Open Space Audit and provides an overview of the cemeteries and churchyards within the Borough and an outline 'quality assessment' based upon the entrance, paths / roads, grassed / planted areas, litter bin provision, general tidiness, seating, parking and general access. It provides an initial indication only as to where areas for improvement could be concentrated, particularly focusing upon sites with scores ranging from 0 to 2.

Figure 14.10: Cemeteries and Churchyards Quality Assessment

Location	Quality Assessment - Entrance	Quality Assessment - Paths and Roads	Quality Assessment - Grassed, Planted and Wooded Areas	Quality Assessment - Litter Bins	Quality Assessment - Litter / General Tidiness	Seating	Parking and Accessibility	Average Total
London Road Cemetery	5	5	4	4	4	4	5	4.20
Woodman Road Cemetery	5	5	4	5	5	5	5	4.80
Lorne Road Cemetery, Warley	3	3	3	2	4	2	3	2.80
Essex Regiment Chapel, Clive Road, Brentwood	5	5	5	5	5	5	5	5.00
St Mary's Churchyard, Hall Lane, Shenfield	5	5	5	4	5	4	5	4.60
Herongate Wood - Green Burial Site, Billericay Road, Brentwood	4	4	5	4	5	4	4	4.40
St. Mary the Virgin, Fryerning, Mill Green Road	4	4	5	4	5	4	4	4.40
Priory Church of St	4	4	5	4	5	4	4	4.40

Laurence, Church Street, Blackmore									
St Peters Church, Weald Road, Brentwood	4	4	4	3	5	4	4	4	4.00
Bentley Crematorium and Cemetery, Ongar Road	5	5	3	3	4	4	5		3.80
Pilgrims Hall, Christian Centre	4	4	3	4	4	4	4	4	3.80
St. Edmund & Mary, Ingatestone Parish Church, High Street	4	4	4	3	4	4	4	4	3.80
St. Mary the Virgin Parish Church, Hall Lane, Shenfield	4	4	4	3	5	3	4		3.80
All Saints Church of England, Church Lane, Doddington	4	4	4	3	4	3	4		3.60
St Thomas of Canterbury Church, St. Thomas Road	4	4	3	3	4	3	4		3.40
All Saints Church, Hutton Village	3	3	4	2	5	3	3		3.40
St. Nicholas' Church, Church Road, Kelvedon Hatch	3	3	3	3	4	3	3		3.20
St. Johns Mountnessing , Hall and Church, Old Church Lane, Padhams Green	3	3	3		3		3		3.00
St. Nicholas Church, Brentwood Road, Ingrave, Brentwood	3	3	2	3	4	3	3		3.00
St. Mary the Virgin, Great Warley Street, Brentwood	3	3	3	2	4	2	3		3.00
St. Helens RC Cathedral, Ingrave Road	3	3	3	2	4	2	3		2.80
The Parish Church of Christ Church, Warley,	2	2	2		4		2		2.70

Warley Hill, Brentwood								
St Stephens Church, St. Stephen Close, Ingrave	2	2	2		4		2	2.70
All Saints & St. Faiths Church, Church Lane, Childerditch	2	2	2	2	4	2	2	2.40
St Georges's Church	2	2	2		2		2	2.00
Trinity Church, 49 Coxtie Green Road, Pilgrims Hatch	3	3	1	1	3	1	3	1.80
St Peter's Little Warley Church, Little Warley Hall Lane, Brentwood	2	2	2	1	3	1	2	1.80
The Gospel Hall	2	2	2	0	3	0	2	1.40

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Brentwood Local Plan (LDP)	
Role and Content	Strategy for the future growth within the Borough over 15 years, setting out the spatial vision, strategic planning policies, development management policies, policies map and site specific land use allocations
Geographical Coverage	Brentwood Borough
Status	Development Plan Document (Independent examination required)
Chain of Conformity	<ul style="list-style-type: none"> • National Planning Policy Framework • Essex Minerals and Waste Development Plans • Brentwood Borough Council Corporate Plan
Replaces	'Saved policies' in the Brentwood Replacement Local Plan (2005)

LDP Timetable	
<i>Pre-production and Document Preparation Issues and Options Completed</i>	<i>Published November 2009</i>
<i>Preferred Options Consultation (Regulation 18) Completed</i>	<i>July – October 2013</i>
<i>Analysis of Representations and Review of Strategic Issues (Regulation 18) Completed</i>	<i>November 2013 – May 2014</i>
<i>Strategic Growth Options Consultation (Regulation 18) Completed</i>	<i>January – February 2015</i>
<i>Draft Local Plan Consultation (Regulation 18) Completed</i>	<i>February – March 2016</i>
<i>Draft Local Plan Preferred Site Allocations Consultation (Regulation 18)</i>	<i>January – March 2018</i>
Pre-submission Consultation (Regulation 19)	Q4 2018
Submission to Secretary of State	Q1 2019
Independent Examination and Receive and publish Inspectors recommendations	Q1 2019 – Q3 2019
Adopt Plan	Q3 2019

Community Infrastructure Levy (CIL)	
Role and Content	The document will set out the charges to be levied on new development in Brentwood
Geographical Coverage	Brentwood Borough, consideration of strategic site retention of S106 process
Status	Charging Schedule
Chain of Conformity	<ul style="list-style-type: none"> • National Planning Policy Framework • Essex Minerals and Waste Development Framework • Brentwood Borough Council Corporate Plan (2016 – 2019)
Replaces	Will largely replace the current system of section 106 'planning obligations'

CIL Timetable	
Evidence gathering, including preparation of an Infrastructure Delivery Plan <i>Completed</i>	April – December 2013
Prepare Preliminary Draft Charging Schedule <i>Completed</i>	January – March 2014
Consultation on Preliminary Draft Charging Schedule <i>Completed</i>	Q1 2016
Publish draft schedule and consultation	Q2 2019
Submit for examination	Q3 2019
Examination	Q2 – Q4 2019
Modify and Adopt Charging Schedule	Q4 2019

Supplementary Planning Documents (or similar)	
Southern Brentwood Growth Corridor	Q4 2018 – Q3 2019
Brentwood Town Centre Design Guide	Q4 2017 – Q2 2019
Recreational disturbance Avoidance Mitigation Strategy (RAMS)	Q1 2019 (strategy agreed) – Q4 2019 (draft SPD / approved by Council)

Timetable of documents to be produced

Document Title	2018				2019				2020			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
(Development Plan Documents)												
Local Development Plan												
(Charging Schedules)												
Community Infrastructure Levy												
(Supplementary Planning Documents (or similar))												
Southern Brentwood Growth Corridor												
Brentwood Town Centre Design Guide												
Recreational disturbance Avoidance Migration Strategy (RAMS)												
(Joint Plan)												
South Essex Joint Strategic Plan												

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