



Sustainability Appraisal (SA) of the Brentwood Local Plan

Scoping Report

May 2013

UNITED
KINGDOM &
IRELAND



Prepared for:



BRENTWOOD
BOROUGH COUNCIL



Limitations

URS Infrastructure & Environment UK Limited ("URS") has prepared this Report for Brentwood Borough Council ("the Client") in accordance with the Agreement under which our services were performed. No other warranty, expressed or implied, is made as to the professional advice included in this Report or any other services provided by URS.

The conclusions and recommendations contained in this Report are based upon information provided by others and upon the assumption that all relevant information has been provided by those parties from whom it has been requested and that such information is accurate. Information obtained by URS has not been independently verified by URS, unless otherwise stated in the Report.

The methodology adopted and the sources of information used by URS in providing its services are outlined in this Report. The work described in this Report was undertaken between October 2012 and March 2013 and is based on the conditions encountered and the information available during the said period of time. The scope of this Report and the services are accordingly factually limited by these circumstances.

URS disclaim any undertaking or obligation to advise any person of any change in any matter affecting the Report, which may come or be brought to URS' attention after the date of the Report.

Certain statements made in the Report that are not historical facts may constitute estimates, projections or other forward-looking statements and even though they are based on reasonable assumptions as of the date of the Report, such forward-looking statements by their nature involve risks and uncertainties that could cause actual results to differ materially from the results predicted. URS specifically does not guarantee or warrant any estimate or projections contained in this Report.

Copyright

© This Report is the copyright of URS Infrastructure & Environment UK Limited.

URS Infrastructure and Environment UK Limited
6-8 Greencoat Place
London, SW1P 1PL

Telephone: +44(0)20 7798 5000
Fax: +44(0)20 7798 5001

TABLE OF CONTENTS

1	INTRODUCTION	1
2	AIR QUALITY	3
3	BIODIVERSITY	6
4	CLIMATE CHANGE MITIGATION	12
5	COMMUNITY AND WELL-BEING	17
6	CULTURAL HERITAGE.....	29
7	ECONOMY AND EMPLOYMENT	31
8	FLOODING	39
9	HOUSING	42
10	LANDSCAPE	50
11	SOIL & CONTAMINATION	53
12	WASTE	55
13	WATER QUALITY & WATER RESOURCES.....	57
14	NEXT STEPS	61
	APPENDIX 1 – LINKS TO THE BRENTWOOD CORE STRATEGY SA	62
	APPENDIX 2 – THE SUGGESTED SCOPE OF SITE OPTIONS ASSESSMENT.....	64

1 INTRODUCTION

1.1 Background

- 1.1.1 URS is commissioned to undertake an independent Sustainability Appraisal (SA) in support of Brentwood Borough's emerging Local Development Plan (henceforth referred to as the 'Local Plan'). This Plan will set out a long term vision for how the Borough should develop by 2030 and the Council's strategy, policies and site allocations for achieving that vision. Box 1.1 provides further background in relation to the Brentwood Borough Local Plan.

Box 1.1: Background to the Brentwood Local Plan

In late 2009, Brentwood Borough Council consulted on issues and options facing the Borough up to 2031, the intention at this time was to use the findings of the consultation as the basis for preparing the Brentwood Local Development Framework 'Core Strategy and Generic Development Control DPD, and Gypsy and Travellers DPD' (henceforth referred to jointly as the 'Core Strategy'). However, for pragmatic reasons the Council decided not to proceed with a Core Strategy, but rather to proceed with the Brentwood Local Plan, which will be the development plan for the whole of Brentwood Borough. For further discussion of the 'links' between work being undertaken at the current time and work undertaken previously in relation to the Core Strategy, please see Appendix 1.

1.2 SA explained

- 1.2.1 SA is a mechanism for considering and communicating the impacts of a Draft Plan approach, and alternatives to that approach, in terms of key sustainability issues, with a view to avoiding and mitigating adverse impacts and maximising the positives. SA of Local Plans is a legal requirement.¹
- 1.2.2 It is a legal 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
- 1.2.3 Two key procedural requirements of the Directive are that:
- 1) A report (which we call the 'SA Report') is published for **consultation** alongside the Draft Plan that essentially presents an appraisal of the Draft Plan (i.e. discusses 'likely significant effects' that would result from plan implementation) and reasonable alternatives;
 - 2) When deciding on 'the scope and level of detail of the information' which must be included in the SA Report there is a **consultation** with nationally designated authorities which by reason of their specific environmental responsibilities, are likely to be concerned by the environmental effects of implementing plans.

This scoping report

- 1.2.4 This 'Scoping Report' is concerned with **(2)**. It presents a suggested scope for the SA so that the nationally designated authorities (which in England are Natural England, the Environment Agency and English Heritage) can provide timely comment.

¹ The Town and Country Planning (Local Planning) Regulations 2012 require that an SA Report is published for consultation alongside the Proposed Submission Version of the document.

² Directive 2001/42/EC

1.3 SA 'scoping' explained

1.3.1 Developing the draft scope presented in this report has involved the following steps:

- 1) Exploring the sustainability 'context', i.e. reviewing high level messages (e.g. from Central Government) with a view to gaining an understanding of *broadly* what SA needs focus on.
- 2) Characterising relevant aspects of sustainability 'baseline' with a view to establishing benchmarks for assessing likely significant effects.
- 3) Identifying particular problems or opportunities ('issues') that should be a particular focus of SA, i.e. can provide a methodological framework for the appraisal of likely significant effects on the baseline.

1.4 Structure of this report

1.4.1 The outcomes of the scoping 'steps' introduced above are presented under a series of twelve sustainability 'topic' headings:

- | | |
|-----------------------------|-----------------------------------|
| • Air quality | • Flooding |
| • Biodiversity | • Housing |
| • Climate change mitigation | • Landscape |
| • Community and well-being | • Soil & contamination |
| • Cultural heritage | • Waste |
| • Economy and employment | • Water quality & water resources |

1.4.2 These topics are selected to reflect:

- a broad understanding of the anticipated scope of plan effects;
- topics suggested by the SEA Directive;³ and
- topics that were used as the basis for structuring the SA work undertaken in 2009 in relation to the Core Strategy.
 - **Appendix 1** discusses links between the Core Strategy SA and the current Local Plan SA.

Appendix 2 – The suggested scope of site options assessment

1.4.3 Once agreed (i.e. subsequent to the current consultation), the suggested scope presented under the twelve topic headings will provide a methodological 'framework' for the appraisal of the draft plan and alternatives. There will also – more than likely – be a need to appraise site options with a view to identifying those sites that should be 'allocated' within the plan. Appraisal of site options will require development of a bespoke methodology. The methodology will reflect the agreed SA scope, but will also strongly reflect data availability. Appendix 2 presents further information about the likely scope of sites assessment. Stakeholders are welcome to comment on this at the current time.

³ The SEA Directive is 'of a procedural nature' (para 9 of the Directive preamble) and does not set out to prescribe particular issues that should and should not be a focus, beyond requiring a focus 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**' [our emphasis]

2 AIR QUALITY

2.1 What's the sustainability 'context'?

Internationally established objectives

- 2.1.1 The EU Thematic Strategy on Air Pollution⁴ 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 National Planning Policy Framework (NPPF)

- 2.1.2 Key messages include -

- *'Planning policies should sustain compliance with and contribute towards EU limit values or national objectives for pollutants, taking into account the presence of Air Quality Management Areas and the cumulative impacts on air quality from individual sites in local areas. Planning decisions should ensure that any new development in Air Quality Management Areas is consistent with the local air quality action plan'.*
- New and existing developments should be prevented from contributing to, being put at unacceptable risk from, or being adversely affected by unacceptable levels of air pollution.

Supplementing the NPPF

- 2.1.3 Further context is provided by a review of the objectives of the Government's Air Quality Strategy and a report by Defra on the links between climate change and air quality (Box 10.1).

Box 2.1: Further policy

The **Air Quality Strategy** for England, Scotland, Wales and Northern Ireland⁵ sets health-based objectives for nine main air pollutants⁶. Performance against these objectives is monitored where people are regularly present and might be exposed to air pollution.

The recent Defra report **Action for air quality in a changing climate**⁷ focuses on the synergies between the two issues of air quality and climate change. In particular, it notes the potential for additional health benefits through the closer integration of climate and air pollution policy. It is suggested that co-benefits can be realised through a variety of means, including promoting low-carbon vehicles and renewable energy.

Established Brentwood specific sustainability objectives

- 2.1.4 Table 2.1 identifies sustainability objectives established, in 2007, for the purposes of the Brentwood Core Strategy SA, that are relevant to this topic chapter (given the difference in scope between the Core Strategy and the Local Plan).

⁴ Commission of the European Communities (2005) Thematic Strategy on air pollution [online] available at: <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2005:0446:FIN:EN:PDF> (accessed 11/2012)

⁵ Defra (2007) Air Quality Strategy for England, Scotland, Wales and Northern Ireland [online] available at: <http://www.defra.gov.uk/environment/quality/air/air-quality/approach/> (accessed 08/2012)

⁶ Benzene; 1,3-butadiene; carbon monoxide (CO); lead; nitrogen dioxide (NO₂); ozone; particles (PM₁₀); sulphur dioxide (SO₂); and polycyclic aromatic hydrocarbons.

⁷ Defra (2010) Air Pollution: Action in a Changing Climate [online] available at: <http://www.defra.gov.uk/publications/files/pb13378-air-pollution.pdf> (accessed 08/2012)

Table 2.1: Relevant objectives and selected sub-objectives from the Brentwood Core Strategy SA Scoping Report⁸ (2007)

CORE STRATEGY SA OBJECTIVE	SELECTED SUB-OBJECTIVES
Deliver more sustainable location and travel patterns	<ul style="list-style-type: none"> • Reduce use of the car • Reduce traffic congestion • Reduce road freight movements
Improve health and reduce health and welfare inequalities	<ul style="list-style-type: none"> • Increase the number of illness free years
Share access to services and benefits of prosperity fairly and help to create communities where people feel safe and that they belong	<ul style="list-style-type: none"> • Reduce health, social and economic inequality
Protect and enhance the natural environment	<ul style="list-style-type: none"> • Achieve good air quality particularly in urban areas

2.2 What's the sustainability 'baseline'?

Current baseline

- 2.2.1 Air quality in Essex as a whole is generally considered to be good.⁹ However, Brentwood Borough features a high proportion of Air Quality Management Areas (AQMAs) when compared to the rest of the County.⁹ In total there are seven located in the Borough.¹⁰
- 2.2.2 Transport is a principle matter of concern in terms of the Borough's air quality. The main source of traffic emissions are the Borough's major roads, with these being the M25, A12, A128, A1023, A129 and A127.¹¹
- 2.2.3 The AQMAs designated in Brentwood 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. The main pollutant identified in all cases is nitrogen dioxide (NO₂).
- 2.2.4 Air quality monitoring outside of the Borough's AQMAs has shown that there are no exceedences of NO₂ in most locations. However, an exceedence of NO₂ was recorded on High Street, Brentwood in 2011 and previously in 2010. As such, the Council is now required to undertake a Detailed Assessment for this location.¹²
- 2.2.5 In several of the AQMAs in the Borough, annual mean NO₂ concentrations have not exceeded the annual mean Air Quality Objective value for the past four years. With this being the case, the Council may consider revoking the AQMA designations in the following locations:¹³
- M25/Nags Head Lane Junction;
 - A12/Greenshaw and Porters Close;
 - A12/Roman Road Mountnessing; and
 - A12/Fryerning Lane, Pemberton Avenue, Trimble Close.

⁸ Brentwood Borough Council Local Development Framework: Core Strategy & DC Policies DPD and Gypsy & Traveller Scoping Report [online] available at: http://www.brentwood.gov.uk/pdf/pdf_1346.pdf (accessed 04/2013)

⁹ 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 11/2012)

¹⁰ Defra: AQMA Maps [online] available at: http://aqma.defra.gov.uk/maps.php?map_name=kent&la_id=33 (accessed 04/2013)

¹¹ Brentwood Borough Council (2012) Air Quality Updating and Screening Assessment for Brentwood Borough Council

¹² ibid

¹³ ibid

Future baseline assuming 'business as usual'

- 2.2.6 In the absence of the Plan to guide its location, new developments may occur in areas of greater sensitivity in terms of air quality, such as within the Borough's AQMAs. This may result in a deterioration of air quality in these locations should the new development result in increased traffic, which is a primary driver of air pollution in the Borough. Highly polluting development, or development unsuited to its location, may also occur (e.g. industrial facilities in residential areas) with negative effects on air quality. Air pollution mitigation measures (e.g. strategically located green space) are also less likely to put in place without Plan guidance.

2.3 What are the key issues that should be a focus of SA?

- 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 Brentwood must be protected from the adverse effects of development through avoidance or mitigation measures.

3 BIODIVERSITY

3.1 What's the sustainability 'context'?

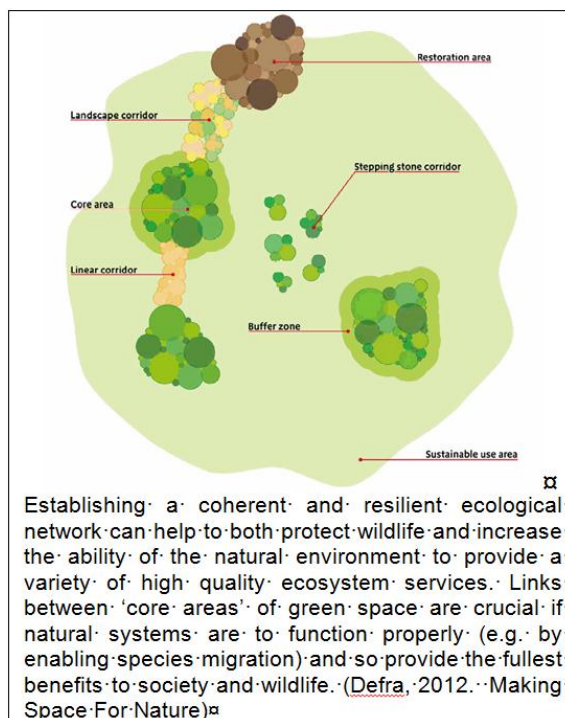
Internationally established objectives

- 3.1.1 The EU Sustainable Development Strategy¹⁴, adopted in 2006, includes an objective to halt the loss of biodiversity by 2010. More recently at the European level, a new EU Biodiversity Strategy¹⁵ was adopted in May 2011 in order to deliver on the established Europe-wide target to 'halt the loss of biodiversity and the degradation of ecosystem services in the EU by 2020'.

The National Planning Policy Framework (NPPF)

3.1.2 Key messages include -

- Contribute to the Government's commitment to halt the overall decline in biodiversity by minimising impacts and achieving net gains in biodiversity wherever possible.
- Promote the 'preservation, restoration and recreation of priority habitats, ecological networks' and the 'protection and recovery of priority species'. Plan for biodiversity at a landscape-scale across local authority boundaries.
- Set criteria based policies for the protection of internationally, nationally and locally designated sites, giving weight to their importance not just individually but as a part of a wider ecological network.
- Take account of the effects of climate change in the long term. Adopt proactive strategies to adaptation and manage risks through adaptation measures including green infrastructure (i.e. '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').
- Plan positively planning for 'green infrastructure' as part of planning for 'ecological networks'.
- High quality open spaces should be protected or their loss mitigated, unless a lack of need is established
- 'Once Green Belts have been defined, local planning authorities should plan positively to enhance the beneficial use of the Green Belt, notably to 'retain and enhance landscapes, visual amenity and biodiversity'.



¹⁴ Council of the European Union (2006) The EU Sustainable Development Strategy [online] available at: <http://register.consilium.europa.eu/pdf/en/06/st10/st10117.en06.pdf> (accessed 11/2012)

¹⁵ European Commission (2011) Our life insurance, our natural capital: an EU biodiversity strategy to 2020 [online] available at: http://ec.europa.eu/environment/nature/biodiversity/comm2006/pdf/2020/1_EN_ACT_part1_v7%5b1%5d.pdf (accessed 11/2012)

Supplementing the NPPF

- 3.1.3 Further sustainability context is provided by a review of: additional Government policy (Box 3.1); strategy established by the Wildlife Trusts as a leading environmental organisation (Box 3.2); strategy established by the Town and Country Planning Association (Box 3.3); strategy focused on woodlands and forestry (Box 3.4); Brentwood specific context (Box 3.5).

Box 3.1: Further policy

The **Natural Environment White Paper (NEWP)**¹⁶ sets out the importance of a healthy, functioning natural environment to sustained economic growth, prospering communities and personal well-being. It was in part a response to the UK's failure to halt and reverse the decline in biodiversity by 2010 and it signalled a move away from the traditional approach of protecting biodiversity in nature reserves to adopting a landscape approach to protecting and enhancing biodiversity. The NEWP also aims to create a green economy in which economic growth and the health of our natural resources sustain each other and markets, business and Government better reflect the value of nature. It includes commitments to:

- Halt biodiversity loss, support functioning ecosystems and establish coherent ecological networks by 2020;
- Establish a new voluntary approach to biodiversity offsetting to be tested in pilot areas;
- Enable partnerships of local authorities, local communities and landowners, the private sector and conservation organisations to establish new Nature Improvement Areas; and
- Address barriers to using green infrastructure to promote sustainable growth.

The NEWP recognises that green infrastructure is 'one of the most effective tools available' to manage 'environmental risks such as flooding and heat waves'. With respect to trees and woodlands, an ambition is to create more opportunities for planting woodlands; for more trees in our towns, cities and villages; and a greater proportion of existing woodlands to be in active management in order to 'enhance the wide range of benefits that woodlands provide' including 'new wildlife habitats and green space for people to use and enjoy' and to help 'mitigate and adapt to the future changing climate.'

The Government has also published '**Biodiversity 2020**'¹⁷, which builds on the Natural Environment White Paper and sets out the strategic direction for biodiversity policy for the next decade. In relation to planning, it states that the objective should be to: '*guide development to the best locations, encourage greener design and enable development to enhance natural networks*'

The proposals set out in the NEWP are directly linked to the ground breaking research in the **National Ecosystem Assessment (NEA)**¹⁸, a major project that was able to draw conclusions on the 'substantial' benefits that ecosystems provide to society directly and through supporting economic prosperity. The NEA identified development as a key driver of loss and biodiversity offsets as a possible means of increasing 'private sector involvement in conservation and habitat creation'.

¹⁶ Defra (2012) The Natural Choice: securing the value of nature (Natural Environment White Paper) [online] available at: <http://www.official-documents.gov.uk/document/cm80/8082/8082.pdf> (accessed 11/2012)

¹⁷ Defra (2011) Biodiversity 2020: A strategy for England's wildlife and ecosystem services [online] available at: <http://www.defra.gov.uk/publications/files/pb13583-biodiversity-strategy-2020-111111.pdf> (accessed 08/2012)

¹⁸ 12 UNEP-WCMC (2011) UK National Ecosystem Assessment [online] available at: <http://uknea.unepwcmc.org/Resources/tabid/82/Default.aspx> (accessed 08/2012)

Box 3.2: Wildlife Trusts position statements

Wildlife Trust **'Living Landscape' initiatives**¹⁹ focus on the conservation of biodiversity over large areas of land where habitats are fragmented. Within Living Landscapes a spatial approach to ecological restoration is applied with the aim of:

- Protecting and maximising the value of areas that are already rich in wildlife;
- Expanding, buffering, and creating connections and stepping stones between these areas; and
- Making the wider landscape more permeable to wildlife.

It is hoped that this restoration will both provide a healthy environment in which wildlife can thrive and enhance those natural processes that benefit people. It complements the NPPF, which calls for *'coherent ecological networks that are more resilient to current and future pressures'*. A partnership approach is called for, with local government, agencies, the private sector and voluntary bodies required to act together.

The Wildlife Trusts (with the TCPA) have also produced guidance on **'Planning for Biodiversity'**.²⁰ It notes that as well as benefiting biodiversity, green infrastructure can help to *'deliver and complement some of the services currently provided by hard engineering techniques'*. Local authorities are called upon to 'identify strategic GI within Local Plans' and also focus on making the built environment permeable for wildlife.

Box 3.3: Town and Country Planning Association (TCPA) position statements

The TCPA suggest that the potential to develop in-line with 'Garden City' principles should be considered in order to achieve 'the best of town and country living'. A recent report entitled **Creating Garden Cities and Suburbs Today**²¹ highlights the provision of green infrastructure in developments as a key area for action and calls for at least 40% of a new community's total area to be allocated to green space. This area should *'consist 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 public 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 system.

Box 3.4: Woodland and forestry specific context

The final report of the **Independent Panel on Forestry**²² has progressed the woodland conservation and management agenda considerably. It calls for society as a whole to value woodlands for the full range of beneficial ecosystem services that they can provide. It suggests that local authorities should look at the creative, cross boundary use of S106 agreements, biodiversity offsets and the community infrastructure levy as levers to 'produce green space schemes, including trees and woodland, that make a significant difference to the landscape'.

It also recommended that 'Local Authorities should use their Local Plans to introduce a "Wood First" policy for construction projects to increase use of wood in buildings. They should create a positive planning environment for sustainable wood and forestry businesses, as well as those based on woodland leisure and tourism, that should always enhance natural capital.'

Earlier policy was established through **'Seeing the Woods for the trees: A Forestry and Woodlands Framework for the South East'**.²³ This document sought to ensure outcomes including:

- Trees and woodlands supporting the development of sustainable communities.
- More people's health and well-being improved through visiting woodlands.
- Woodlands and trees, especially ancient woodlands and veteran trees, protected from loss.

¹⁹ The Wildlife Trusts (2010) A Living Landscape: play your part in nature's recovery [online] available at: <http://www.wildlifetrusts.org/alivinglandscape> (accessed 08/2012)

²⁰ The Wildlife Trusts & TCPA (2012) Planning for a healthy environment: good practice for green infrastructure and biodiversity [online] available at: <http://www.wildlifetrusts.org/news/2012/07/06/planning-healthy-and-natural-environment> (accessed 08/2012)

²¹ TCPA (2012) Creating garden cities and suburbs today [online] available at: http://www.tcpa.org.uk/data/files/Creating_Garden_Cities_and_Suburbs_Today.pdf (accessed 08/2012)

²² Defra (2012) The Independent Panel on Forestry: Final report [online] available at: <http://www.defra.gov.uk/forestrypanel/reports> (accessed 08/2012)

²³ Forestry Commission (2004). Seeing the Woods for the trees: A Forestry and Woodlands Framework for the South East [online] available at: <http://www.forestry.gov.uk/seeingthewoodforthetrees>

Box 3.5: Brentwood specific context

The Brentwood Borough **Assessment of Needs and Audit of Open Space, Sport and Recreation Facilities** sets local standards for the provision of public open space and facilities, and identifies priority areas for the provision and improvement of open space to meet the needs of local communities. The report notes that '*green corridors or wildlife corridors provide an important function in linking together areas of open space*'. The recommendations of the report highlight the need to develop 'strategic green linkages' by growing the existing network of public footpaths, exploring opportunities to develop pathways along main waterways and developing existing Public Rights of Way into key cycle routes.

Established Brentwood specific sustainability objectives

- 3.1.4 Table 3.1 identifies sustainability objectives established, in 2007, for the purposes of the Brentwood Core Strategy SA, that are relevant to this topic chapter (given the difference in scope between the Core Strategy and the Local Plan).

Table 3.1: Relevant objectives and selected sub-objectives from the Brentwood Core Strategy SA Scoping Report²⁴ (2007)

CORE STRATEGY SA OBJECTIVE	SELECTED SUB-OBJECTIVES
Deliver sustainable use of land	<ul style="list-style-type: none"> • Development on Green Belt Land and green wedges will not be permitted other than as allowed for • Remediate contaminated land, taking potential biodiversity into consideration • Develop land with the least environmental/amenity value whilst ensuring Green Belt objectives are maintained • Protect and enhance green spaces
Protect and enhance the natural environment	<ul style="list-style-type: none"> • Ensure regionally and locally designated sites are protected and enhanced taking into account climate change • Protect and enhance semi-natural habitats • Improve the status of SSSIs • Work towards meeting Essex BAP objectives • Promote restoration and creation of natural habitats • Protect & enhance existing landscape features such as woodlands, trees, hedgerows and ponds
Protect and enhance the rural environment ensuring the countryside and multifunctional open spaces are accessible to all	<ul style="list-style-type: none"> • Encourage the reuse of rural buildings making sure any protected species associated with them are protected
Revitalise town centres and promote a return to sustainable urban living	<ul style="list-style-type: none"> • Increase access to open space

3.2 What's the sustainability 'baseline'?

Current baseline

- 3.2.1 The Essex **Biodiversity Action Plan** (BAP) sets out those species and habitats that should be protected and enhanced within the Borough. Priority habitats include woodlands, grasslands, hedgerows and ponds. Priority species include dormice, great crested newts and bats.

²⁴ Brentwood Borough Council Local Development Framework: Core Strategy & DC Policies DPD and Gypsy & Traveller Scoping Report [online] available at: http://www.brentwood.gov.uk/pdf/pdf_1346.pdf (accessed 04/2013)

- 3.2.2 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.
- 3.2.3 Other sites of biodiversity interest in Brentwood include:²⁵
- One statutory **Local Nature Reserve** (Hutton Country Park), and Warley Place which is managed by Essex Wildlife Trust as a Local Nature Reserve;
 - Thames Chase **Community Forest** and Red House Lake are both highlighted as sites for protection; and
 - **Local Wildlife Sites (LoWS)** and areas of woodland.
- 3.2.4 There are 147 sites identified as LoWS in Brentwood. These sites can be considered as being of County level importance. Loss of LoWS land between 1992 and 2012 to development has been very slight and overall, the amount of land of wildlife interest in total has increased. One of the most noticeable features of the current LoWS network is the relative lack of high quality grasslands.²⁶
- 3.2.5 Geographically, there is a reasonable spread of LoWS across the Borough. However, there are some localised exceptions. In the north, the parish of Blackmore, Hook End and Wyatts Green is very poorly represented, whilst around Ingatestone there are few, relatively isolated sites.²⁷
- 3.2.6 The Essex Wildlife Trust is promoting a range of significant '**Living Landscapes**' for wildlife in the County (see Box 3.2). These Living Landscape areas are spread across the County, several of which are located at least partly within Brentwood Borough.²⁸
- 3.2.7 Brentwood currently has no recognised formal **green corridors**. However, there are over 150 miles of Public Rights of Way within the Borough and three main waterways. Aspirations for green corridors derived from results from the household survey include: clear footpaths; natural features; and nature conservation areas.²⁹
- 3.2.8 The built up area of Brentwood features a number of important '**green wedges**', two of which extend into the centre of the town. These are Hartswood/Shenfield Common, and Brentwood School/Merrymeade Park. Thriftwood is also an extensive woodland area within the Town.³⁰
- 3.2.9 There are 11 parks in the Borough and four **country parks**. The country parks are regarded as being of biodiversity importance. For instance, Thorndon Country Park hosts an ancient deer park area which has been designated as a SSSI.³¹
- 3.2.10 Brentwood's country parks are based in the west, east and south of the Borough. With the exception of Tipps Cross ward in the north of the Borough, all residential areas are within the recommended accessible drive time catchment³² of one of the four country parks.

²⁵ 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 11/2012)

²⁶ EECOS (2012) Brentwood Borough Local Wildlife Site Review

²⁷ ibid

²⁸ ibid

²⁹ 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 11/2012)

³⁰ Brentwood Borough Council – About Brentwood [online] available at: <http://www.brentwood.gov.uk/index.php?cid=43> (accessed 11/2012)

³¹ 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 11/2012)

³² A drive-time accessibility standard of 10 minutes (4km) was deemed appropriate for country parks given their role as a destination venue

Future baseline assuming 'business as usual'

- 3.2.11 Without the implementation of the Plan, sites of biodiversity importance are likely to come under increasing pressure. Rising population and associated development may result in the loss of habitat. A failure to further 'connect' habitats through green corridors may lead to further losses as species are lost to due to the effects of isolation (i.e. loss of genetic diversity) exacerbated by the effects of climate change.
- 3.2.12 From the climate change projections for Essex³³ it is understood that, in addition to the changing climate, there is likely to be a decrease in soil moisture (particularly during summer and autumn) which could adversely affect biodiversity and the integrity of the natural environment. The UK Climate Change Risk Assessment (2011) also notes that risks to biodiversity will result from low water levels and reduced river flows presenting a risk to freshwater habitats due to increased concentration of pollutants from agriculture, sewage and air pollution.

3.3 What are the key issues that should be a focus of SA?

- The Borough's existing natural assets need to be protected from the impacts of future development and where possible enhanced.
- Brentwood'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.

³³ 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 12/2012)

4 CLIMATE CHANGE MITIGATION

4.1 What's the sustainability 'context'?

Internationally established objectives

- 4.1.1 In its 2007 strategy on climate change, the European Commission assesses the costs and benefits of combating climate change and recommends a package of measures to limit global warming to 2° Celsius.³⁴ On energy, the Commission recommends that the EU's energy efficiency improves by 20 % and the share of renewable energy grows to 20 % by 2020.

The National Planning Policy Framework (NPPF)

4.1.2 Key messages include -

- Support the transition to a low carbon future in a changing climate as a 'core planning principle'.
- There is a key role for planning in securing radical reductions in GHG, including in terms of meeting the targets set out in the Climate Change Act 2008³⁵. Specifically, planning policy should support the move to a low carbon future through:
 - planning for new development in locations and ways which reduce GHG emissions
 - actively supporting energy efficiency improvements to existing buildings
 - setting local requirements for building's sustainability in a way that is consistent with the Government's zero carbon buildings policy
 - positively promoting renewable energy technologies and considering identifying suitable areas for their construction
 - encouraging those transport solutions that support reductions in greenhouse gas emissions and reduce congestion.

Supplementing the NPPF

- 4.1.3 Further context is provided by a review of a recent Committee on Climate Change and Department of Energy and Climate Change (DECC) guidance (Box 4.1); a recent strategy document prepared by the Department for Transport focused on 'integrated transport' (Box 4.2); and a consideration of the Brentwood declaration on climate change (Box 4.3).

Box 4.1: Committee on Climate Change and DECC guidance

In the guidance document **How local authorities can reduce emissions and manage climate risk**³⁶ planning functions are described as being a 'key lever in reducing emissions and adapting localities to a changing climate', with it considered particularly important that local authorities use these to:

- Enforce energy efficiency standards in new buildings and extensions;
- Reduce transport emissions by concentrating new developments in existing cities and large towns and/or ensuring they are well served by public transport;
- Work with developers to make renewable energy projects acceptable to local communities;
- Avoid increasing the area's risk to climate change impacts by locating new development in areas of lowest flood risk; and

³⁴ Commission of the European Communities (2007) Limiting Global Climate Change to 2 degrees Celsius: The way ahead for 2020 and beyond [online] available at: <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2007:0002:FIN:EN:PDF> (accessed 11/2012)

³⁵ The Climate Change Act 2008 sets targets for greenhouse gas (GHG) emission reductions through action in the UK of at least 80% by 2050, and reductions in CO2 emissions of at least 26% by 2020, against a 1990 baseline.

³⁶ Committee on Climate Change (2012) How local authorities can reduce emissions and manage climate risk [online] available at: http://hmccc.s3.amazonaws.com/Local%20Authorities/1584_CCC_LA%20Report_bookmarked_1b.pdf (accessed 11/2012)

- Plan for infrastructure such as low-carbon district heating networks, green infrastructure and sustainable drainage systems.

With regards to the latter point on low-carbon district heating networks, the Department of Energy and Climate Change (DECC) report **The future of heating**³⁷ provides further guidance. It points out that around half (46%) of the final energy consumed in the UK is used to provide heat, contributing roughly a third of the nation's greenhouse gas emissions. Renewable heat currently represents 1% of heat generation in the UK, although this is expected to grow significantly if decarbonisation targets are to be met. The Government's vision is of: *'buildings benefiting from a combination of renewable heat in individual buildings, particularly heat pumps, and heat networks distributing low carbon heat to whole communities...focusing first on the energy efficiency of our buildings...'*

Box 4.2: DfT strategy for improving sustainable transport integration

This Department for Transport (DfT) **'Door to Door' strategy**³⁸ focuses on four core areas which we know need to be addressed so that people can be confident in choosing sustainable transport:

- accurate, accessible and reliable information about the different transport options for their journeys;
- convenient and affordable tickets, for an entire journey;
- regular and straightforward connections at all stages of the journey and between different modes of transport; and
- safe, comfortable transport facilities.

In terms of supporting 'improved connections at different stages of the journey' DfT promote -

- investing in a high-quality cycling and walking environment; and
- delivering more accessible transport.

In terms of transport facilities, DfT promote -

- creating high-quality stations and interchange hubs;
- investing in cycling and walking facilities and putting stations at the heart of the committed 'plug-in hybrid vehicle programme'; and
- ensuring transport is part of longer-term planning and development.

Box 4.3: The Brentwood declaration on climate change

The **Brentwood declaration on climate change**³⁹ 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 features a number of actions that the Council will take from 2007 onwards. These include:

- Develop plans with partners and local communities to progressively address the causes and the impacts of climate change
- Assess the risk associated with climate change and the implications for services and local communities of climate change impacts and adapt accordingly
- Encourage local communities to take the opportunity to adapt to the impacts of climate change, to reduce their own greenhouse gas emissions and to make public their commitment to action.

Established Brentwood specific sustainability objectives

- 4.1.4 Table 4.1 identifies sustainability objectives established, in 2007, for the purposes of the Brentwood Core Strategy SA, that are relevant to this topic chapter (given the difference in scope between the Core Strategy and the Local Plan).

³⁷ DECC (2012) The Future of Heating: A strategic framework for low carbon heat in the UK [online] available at:

<http://www.decc.gov.uk/assets/decc/11/meeting-energy-demand/heat/4805-future-heating-strategic-framework.pdf> (accessed 11/2012)

³⁸ DfT (2013). Door to Door: A strategy for improving sustainable transport integration [online] available at:

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/142539/door-to-door-strategy.pdf (accessed 04/13)

³⁹ Brentwood Borough Council (2006) The Brentwood declaration on climate change [online] available at:

<http://www.brentwood.gov.uk/pdf/15072008161938u.pdf> (accessed 04/2013)

Table 4.1: Relevant objectives and selected sub-objectives from the Brentwood Core Strategy SA Scoping Report⁴⁰ (2007)

CORE STRATEGY SA OBJECTIVE	SELECTED SUB-OBJECTIVES
Reduce greenhouse gas emissions and adverse effects of climate change	<ul style="list-style-type: none"> • Increase use of renewable energy schemes • Encourage use of energy saving measures • Increase number of new developments meeting the Code for Sustainable Homes Standards • Reduce use of the car and road freight transport
Deliver more sustainable location and travel patterns	<ul style="list-style-type: none"> • Reduce the need to travel • Increase walking, cycling and using the bus and train • Reduce use of the car • Locate new development in locations that reduce the need for travel, are as close as possible to existing community and services infrastructure and public transport links.
Use natural resources (including water, fossil fuels, land and minerals) efficiently	<ul style="list-style-type: none"> • Minimise demand for raw materials
Ensure access to education and skills training in the Borough for all current and future residents	<ul style="list-style-type: none"> • Improve transport links and reduce use of the car on the 'school run'

4.2 What's the sustainability 'baseline'?

Current baseline

- 4.2.1 Total domestic and commercial energy consumption in Brentwood was below the average for Essex County as a whole in 2005⁴¹. With the possible exception of some small scale domestic solar panels, Brentwood had no renewable energy schemes in place in 2009,⁴¹ 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.⁴²
- 4.2.2 Per capita emissions of CO₂ in the Borough have been falling in recent years. Total emissions per capita have fallen from 8.2 tonnes in 2005 to 7.2 tonnes by 2010. This decline can be broken down as follows: transport emissions have fallen by 0.4 tonnes, domestic emission by 0.3 tonnes and industrial emissions by 0.3 tonnes. Emissions per capita are still above the 2010 Essex (6 tonnes), South East (6.1 tonnes) and National (6.6 tonnes) averages.⁴³

⁴⁰ Brentwood Borough Council Local Development Framework: Core Strategy & DC Policies DPD and Gypsy & Traveller Scoping Report [online] available at: http://www.brentwood.gov.uk/pdf/pdf_1346.pdf (accessed 04/2013)

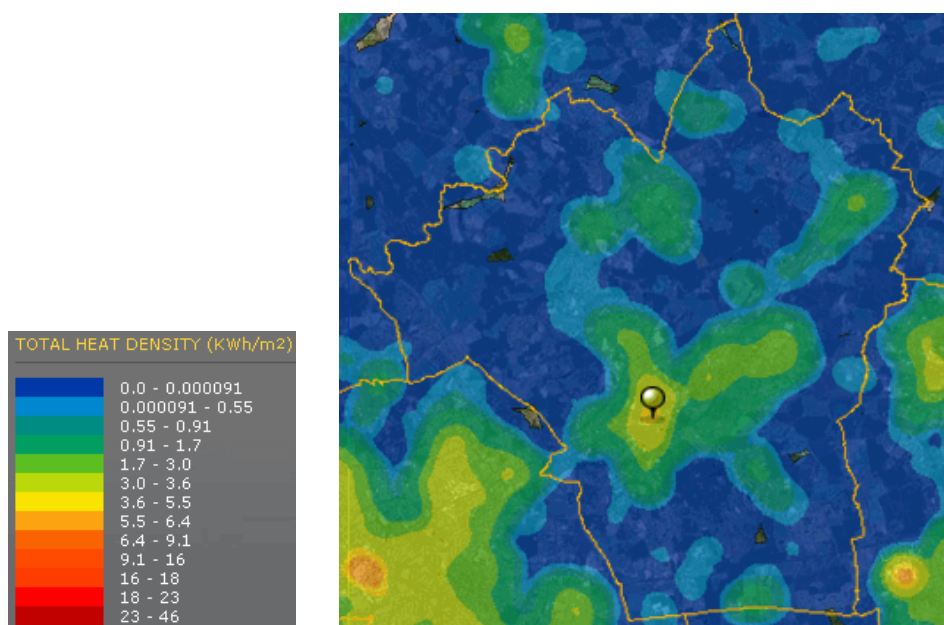
⁴¹ Brentwood Borough Council (2009) Pathway to a sustainable Brentwood: Issues and Options Consultation [online] available at: <http://www.brentwood.gov.uk/pdf/10112009103817u.pdf> (accessed 11/2012)

⁴² Brentwood Borough Council (2012) Annual Monitoring Report 2010/11 [online] available at: <http://www.brentwood.gov.uk/pdf/18012012112208u.pdf> (accessed 11/2012)

⁴³ DECC (2010) Local Authority Carbon Dioxide Figures [online] available at: http://www.decc.gov.uk/en/content/cms/statistics/climate_stats/gg_emissions/laco2/laco2.aspx (accessed 11/2012)

- 4.2.3 A large proportion of the Borough's population travels to work by car (57%), although this is below the national average. A higher than average number of people commute by train (20%). Only 1% of residents cycle to work, which is below the regional and national average. A greater number of people travel to work by foot than 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.⁴⁴ It should be noted that this evidence is drawn from the 2001 census and so may be regarded as somewhat dated, although trends may remain similar.
- 4.2.4 Code for sustainable homes certificates rate the performance of new buildings against a number of criteria, including their energy and CO₂ emissions⁴⁵. Nationally, there were 52,486 post construction stage certificates and 98,865 design stage certificates issued up to 31 December 2011. Buildings awarded design stage or post construction certificates have primarily been built for the public sector (74% and 84% respectively). A total of 78% of the certificates at design stage and 87% of those at post-construction stage have been awarded at Code level 3 since April 2007.
- 4.2.5 The Department for Energy and Climate change (DECC) has produced a set of online maps showing heat demand from buildings across England. These maps can be used to identify priority areas for low carbon heat projects. As Figure 4.1 demonstrates, heat demand for the Borough is concentrated in the town of Brentwood. The green marker indicates the location of the ADM Combined Heat and Power station, which has 14MWe of installed capacity.⁴⁶

Figure 4.1: Concentrations of heat demand in Brentwood and the location of CHP installations⁴⁷



⁴⁴ 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 11/2012)

⁴⁵ The CfSH assessment is presently voluntary other than if required by local policy. Housing development over 100 homes required to meet CSH4.

⁴⁶ DECC (2012) National Heat Map (Previously available at <http://ceo.decc.gov.uk/nationalheatmap/>. Updated site available at: <http://chp.decc.gov.uk/developmentmap/>)

⁴⁷ ibid

Future baseline assuming 'business as usual'

- 4.2.6 Climate change mitigation is likely to increase as an 'issue' as the impacts are increasingly felt. The 2009 UK Climate Change Projections predict that (by 2080):
- Winters are likely to be warmer by around 2.2°C.
 - Summers are likely to be hotter by around 2.8°C.
 - Winter rainfall is likely to increase by 16%.
 - Summer rainfall is likely to decrease by 19%.
- 4.2.7 In the absence of guidance from the Plan, the probability of new development and infrastructure being in-line with 'low-carbon' aspirations will be lower, given that such technologies and approaches tend to be more expensive to implement than carbon intensive measures, at least in the near term.

4.3 What are the key issues that should be a focus of SA?

- 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.
- There is the need for businesses in the Borough to contribute to the creation of a low-carbon economy, including reduced levels of energy use in buildings and from transport.

5 COMMUNITY AND WELL-BEING⁴⁸

5.1 What's the sustainability 'context'?

The National Planning Policy Framework (NPPF)

5.1.1 Key messages include -

- The social role of the planning system involves 'supporting vibrant and healthy communities'.
- A core planning principle is to 'take account of and support local strategies to improve health, social and cultural wellbeing for all'.
- The planning system can play an important role in facilitating social interaction and creating healthy, inclusive communities'
- Promote the retention and development of local services and community facilities such as local shops, meeting places, sports venues, cultural buildings, public houses and places of worship.
- Set out the strategic policies to deliver the provision of health facilities.
- Ensuring that there is a 'sufficient choice of school places' is of 'great importance' and there is a need to take a 'proactive, positive and collaborative approach' to bringing forward 'development that will widen choice in education'.
- Access to high quality open spaces and opportunities for sport and recreation can make an important contribution to the health and well-being of communities.
- Make clear which uses will be permitted in town centres and 'promote competitive town centres that provide customer choice and a diverse retail offer and which reflect the individuality of town centres'.
- Planning policies should aim to avoid noise from giving rise to significant adverse impacts on health and quality of life.
- Ensure that developments create safe and accessible environments where crime and disorder, and the fear of crime, do not undermine quality of life or community cohesion. Places should contain clear and legible pedestrian routes, and high quality public spaces, which encourage the active and continual use of public areas.

Supplementing the NPPF

5.1.2 Further sustainability context is provided by a review of Government policy stemming from the 'Marmot review' and the Health and Social Care Act 2012 (Box 5.1); and research examining: the social and health implications of climate change (Box 5.2), the implications of an ageing population (Box 5.3); the relationship between the natural world and well-being (Box 5.4); the role of walking and cycling (Box 5.5); and local food production (Box 5.6).

⁴⁸ N.B. Issues relating to 'Housing need' are considered in Chapter 9: Housing

Box 5.1: Further policy in relation to 'health'

Fair Society, Healthy Lives⁴⁹ ('The Marmot Review') investigated health inequalities in England and the actions needed in order to tackle them. Subsequently, a supplementary report was prepared providing additional evidence relating to spatial planning and health on the basis that there is: *'overwhelming evidence that health and environmental inequalities are inexorably linked and that poor environments contribute significantly to poor health and health inequalities'*.

It highlights three main policy actions to ensure that the built environment promotes health and reduces inequalities. These should be applied on a universal basis, but with a scale and intensity that is proportionate to the level of disadvantage. Specifically these actions are to:

- Fully integrate the planning, transport, housing, environmental and health systems to address the social determinants of health in each locality.
- Prioritise policies and interventions that both reduce health inequalities and mitigate climate change by: improving active travel; improving good quality open and green spaces; improving the quality of food in local areas; and improving the energy efficiency of housing.
- Support locally developed and evidence-based community regeneration programmes that remove barriers to community participation and action; and reduce social isolation.

The increasing role that local level authorities are expected to play in producing health outcomes is well demonstrated by recent Government legislation. **The Health and Social Care Act 2012** transfers responsibility for public health from the NHS to local government⁵⁰, giving them a duty to improve the health of the people who live in their areas. This will require a more holistic approach to health across all local government functions.

Box 5.2: Climate change, justice and vulnerability

The Joseph Rowntree report **Climate change, justice and vulnerability**⁵¹ calls for greater recognition of the social dimensions of vulnerability to climate change when considering adaptation policy. It notes that the effect of an extreme weather event on a person or group is determined not only by their exposure to the event, but also on their vulnerability. This combination of factors can be described in terms of 'Climate Disadvantage'.

The social dimensions of vulnerability must be reflected in climate adaptation policy. For instance, in relation to flooding, there is a need to recognise that:

- Low-income households are less able to take measures to make their property resilient to flooding and to respond to and recover from the impacts of floods.
- The ability to relocate is affected by wealth, as is the ability to take out insurance against flood damage.

Social networks also affect the ability of residents to respond to flooding. For example, by providing social support and a response network, and by improving the local knowledge base.

⁴⁹ The Marmot Review (2011) The Marmot Review: Implications for Spatial Planning [online] available at: <http://www.nice.org.uk/nicemedia/live/12111/53895/53895.pdf> (accessed 08/2012)

⁵⁰ Upper tier and unitary local authorities

⁵¹ Joseph Rowntree Foundation (2011) Climate change, justice and vulnerability [online] available at: <http://www.jrf.org.uk/sites/files/jrf/climate-change-social-vulnerability-full.pdf> (accessed 11/2012)

Box 5.3: Implications of an ageing population

The Select Committee on Public Service and Demographic Change report **Ready for Ageing?**⁵² warns that society is underprepared for the ageing population. The report says that *'longer lives can be a great benefit, but there has been a collective failure to address the implications and without urgent action this great boon could turn into a series of miserable crises'*. Key projections about ageing include 51% more people aged 65 and over and 101% more people aged 85 and over in England in 2030 compared to 2010; and a 90% increase in people with moderate or severe need for social care for the same time period. Organisations involved in urban planning will need to adjust to an older population and will have an important role to play in preventing the social isolation of older citizens.

The report says that 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. The report notes that *"if the country had an adequate supply of suitably located, well-designed, supported housing for older people, this could result in an increased release onto the market of currently under-occupied family housing, expanding the supply available for younger generations"*. It recommends that local government should ensure better housing provision for older people by both encouraging private market provision and by making specific mention of older people's needs when drawing up Local Plans.

Box 5.4: Influence of nature on and community well-being

The report **Natural Solutions** from the New Economics Foundation looks to highlight evidence from recent studies that demonstrates the important role that the natural world can play in delivering well-being and the delivery of key societal goals such as health, education, urban regeneration and crime reduction.

It points to the relationship between access to nature and positive health outcomes, with both physical and mental health benefits on offer through increased physical activity and environmental experience and contact. The natural environment is also described as potentially being a resource to help reduce crime levels and increase community cohesion by providing a neutral space in which people can meet and interact. In addition, green spaces and other outdoor locations can provide key environments for effective learning, with this particularly being the case for children not engaged in formal learning.

⁵² Select Committee on Public Service and Demographic Change (2013) Ready for Ageing? [online] available at: <http://www.parliament.uk/business/committees/committees-a-z/lords-select/public-services-committee/report-ready-for-ageing/> [accessed 15/03/2012]

Box 5.5: Walking and Cycling

The NHS National Institute of Health and Clinical Excellence (NICE) have recently published guidance on **Local measures to promote walking and cycling**.⁵³ The evidence presented in this report suggests that 'effective support' from local councils plays a key role in increasing rates of walking and cycling. The report emphasises that increasing the numbers of people who walk and cycle, and how often, can reduce the health costs associated with air pollution and inactivity. Relevant recommendations made in the report include:

- Ensure local, high-level strategic policies and plans support and encourage both walking and cycling.
- Develop coordinated, cross-sector programmes to promote walking and cycling for recreation as well as for transport, based on a long-term vision of what can be achieved, taking account of the needs of the whole population.
- Address infrastructure issues that may prevent people from wanting to walk.

Another report - '**Understanding Walking and Cycling**' (2011)⁵⁴ - looked to understand why sustainable and active travel is relatively uncommon in British towns when, potentially, higher levels of walking and cycling could reduce congestion, improve local environmental quality, improve personal health and reduce transport-related greenhouse gas emissions. It recognises that physical infrastructure alone is not sufficient, with a more holistic approach required to incentivise such journeys. A number of the policy goals set out are issues that can be addressed to some extent through planning. These include: Creating a safe physical environment for pedestrians and cyclists – e.g. through fully segregated cycle paths; and restrictions on vehicle access; and reducing trip distances in urban areas – e.g. providing more facilities close to residential areas; restrict out-of-town retail developments.

Box 5.6: Sustainable food specific context

This Environmental Audit Committee's report **Sustainable Food**⁵⁵ highlights the lack of government guidance on providing communities with better access to local and sustainable food through Local Plans. It suggests that such guidance should encourage provisions within Local Plans that take account of such access and 'ensure that communities are provided with open spaces to grow their own produce'.

Established Brentwood specific sustainability objectives

- 5.1.3 Table 5.1 identifies those sustainability objectives established, in 2007, for the purposes of the Brentwood Core Strategy SA, that are relevant to this topic chapter (given the difference in scope between the Core Strategy and the Local Plan).

Table 5.1: Relevant objectives and selected sub-objectives from the Brentwood Core Strategy SA Scoping Report⁵⁶ (2007)

CORE STRATEGY SA OBJECTIVE	SELECTED SUB-OBJECTIVES
Protect and enhance the rural environment ensuring the countryside and multifunctional open spaces are accessible to all.	<ul style="list-style-type: none"> • Encourage access to, and enjoyment of the countryside

⁵³ Available online at: <http://guidance.nice.org.uk/PH41>

⁵⁴ Lancaster University, University of Leeds & Oxford Brookes University (2011) Understanding Walking and Cycling: Summary of Key Findings and Recommendations [online] available at: http://www.its.leeds.ac.uk/fileadmin/user_upload/UWCReportSept2011.pdf (accessed 08/2012)

⁵⁵ Environmental Audit Committee (2012) Sustainable Food [online] available at: <http://www.publications.parliament.uk/pa/cm201012/cmselect/cmenvaud/879/87902.htm> (accessed 11/2012)

⁵⁶ Brentwood Borough Council Local Development Framework: Core Strategy & DC Policies DPD and Gypsy & Traveller Scoping Report [online] available at: http://www.brentwood.gov.uk/pdf/pdf_1346.pdf (accessed 04/2013)

CORE STRATEGY SA OBJECTIVE	SELECTED SUB-OBJECTIVES
Deliver more sustainable location and travel patterns	<ul style="list-style-type: none"> • Increase walking and cycling • Increase road safety • Locate new development in locations that are as close as possible to existing community and services infrastructure and public transport links
Ensure access to education and skills training in the Borough for all current and future residents	<ul style="list-style-type: none"> • Encourage the provision of more locally based education services and facilities • Ensure all groups have access to education • Maintain high level of educational achievement
Share access to services and benefits of prosperity fairly and help to create communities where people feel safe and that they belong	<ul style="list-style-type: none"> • Ensure sufficient healthcare, social and community facilities are provided to support new development • Encourage the provision of more locally based services and facilities • Increase access to leisure and recreation facilities • Ensure all groups of the community have access to facilities • Reduce health, social and economic inequality • Reduce crime rates and the fear of crime • Help deprived areas • Maintain village services • Promote healthy lifestyles • Help develop ethnic/cultural mutual understanding • Support community involvement, development of the voluntary sector and development of social enterprises • Help people with disabilities to access services and facilities more easily
Improve health and reduce health and welfare inequalities	<ul style="list-style-type: none"> • Increase the number of illness free years • Improve access to health care for all existing and new residents in the Borough • Encourage people to adopt healthier lifestyles, for example through access to open space and leisure and recreation facilities
Revitalise town centres and promote a return to sustainable urban living	<ul style="list-style-type: none"> • Encourage the feeling of community spirit • Increase access to open space • Reduce noise pollution • Promote high quality design of buildings and public space
Ensure the needs of Gypsy & Traveller groups are met	<ul style="list-style-type: none"> • Ensure sites are considerably located, not alongside noisy roads, landfill sites or railway lines • Ensure Gypsies & Travellers have access to healthcare and education services

5.2 What's the sustainability 'baseline'?

Current baseline

Demographics

- 5.2.1 According to census data over the period 1971 to 2001, the population of Brentwood has been subject to a declining trend, with the population falling by 3.2% between 1991 and 2001 to stand at 68,456. The 2011 Census meanwhile records a 7% rise to 73,600. Around 70% of the Borough's population live in Brentwood urban area.⁵⁷ ⁵⁸ Almost all of the population change in Brentwood between 2001 and 2008 was through migration from the EU and UK.⁵⁹
- 5.2.2 Those aged over 60 make up 23.9% of the population of Brentwood, which is above the average for England (20.9%)⁶⁰ and an increasingly ageing population is predicted.
- 5.2.3 With regards to ethnicity, Black and Minority Ethnic groups made up approximately 7% of the total population in 2001. This figure is slightly higher than the Essex average but lower than the national average.⁶¹

Health and well-being

- 5.2.4 In the Borough, there is a higher proportion of the population classed as having 'good' health than in England as a whole.⁶² 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.⁶³ 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 (See Figure 5.2).⁶⁴
- 5.2.5 According to the Department for Health, health priorities identified for Brentwood Borough include reducing road injuries and deaths, and increasing physical activity in adults and children.⁶⁵
- 5.2.6 In a survey carried out for the Council, 90% of Borough residents said that they considered themselves to be 'satisfied' or 'very satisfied' with Brentwood as a place to live.⁶⁶

⁵⁷ Brentwood Borough Council (2012) Annual Monitoring Report 2010/11 [online] available at: <http://www.brentwood.gov.uk/index.php?cid=880> (accessed 11/2012)

⁵⁸ 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 11/2012)

⁵⁹ Roger Tym & Partners / Edge Analytics (2012) Heart of Essex Housing Growth Scenarios [online] available at: <http://www.brentwood.gov.uk/pdf/06082012102027u.pdf> (accessed 04/2013)

⁶⁰ Brentwood Borough Council (2012) Annual Monitoring Report 2010/11 [online] available at: <http://www.brentwood.gov.uk/index.php?cid=880> (accessed 11/2012)

⁶¹ *ibid*

⁶² *ibid*

⁶³ *ibid*

⁶⁴ Department of Health (2012) Health Profile: Brentwood [online] available at www.apho.org.uk/resource/view.aspx?RID=117177 (accessed 11/2012)

⁶⁵ *ibid*

⁶⁶ 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 11/2012)

Figure 5.2: Health inequalities in Brentwood.⁶⁷ The points on this chart show the average life expectancy in each tenth of the population of the area.

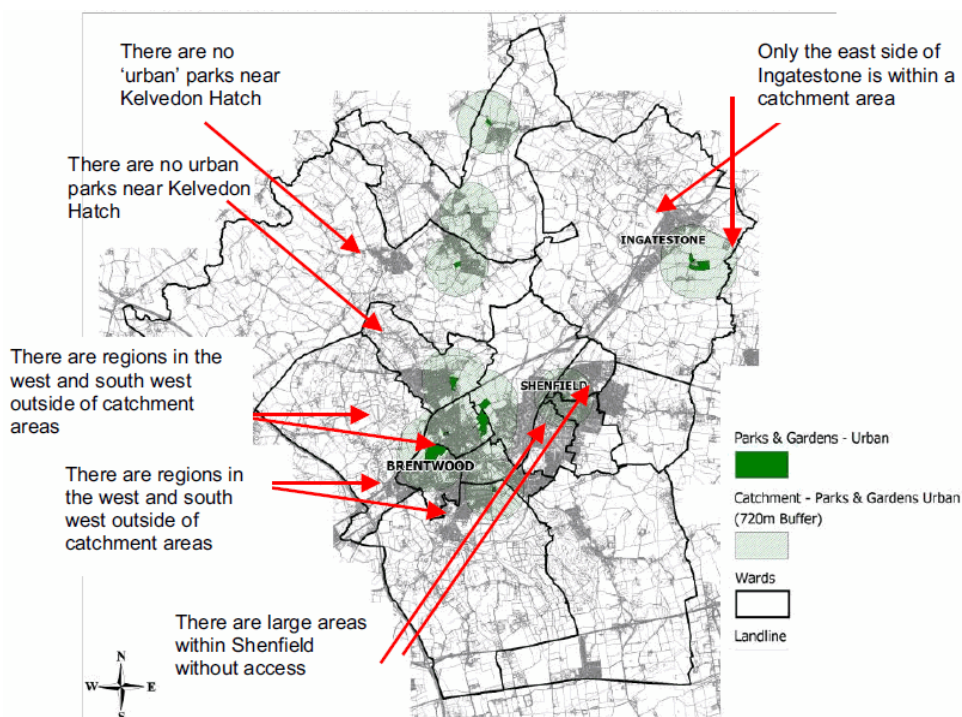


Open space

5.2.7

Figure 5.3 illustrates the spatial distribution of urban parks and gardens in Brentwood and reveals that there are a number of areas outside of an accessible catchment.⁶⁸

Figure 5.3: Spatial distribution of urban parks and gardens⁶⁹



⁶⁷ Department of Health (2012) Health Profile: Brentwood [online] available at www.apho.org.uk/resource/view.aspx?RID=117177 (accessed 11/2012)

⁶⁸ 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 11/2012)

⁶⁹ ibid

- 5.2.8 As Figure 5.3 demonstrates, there are significant areas in the Brentwood urban area without access to an urban park or garden – these areas include central Brentwood, Warley, Brook Street, Pilgrims Hatch, Shenfield and Hutton Mount. The survey does not recommend the first four of these areas as a priority for new park provision because they are within 10 minutes drive of a country park. Shenfield and Hutton Mount are recommended as priorities for new provision.⁷⁰ It is notable that this assessment focuses on provision in light of access by car. It is possible that levels of provision are lower in terms of accessibility by foot or bicycle.
- 5.2.9 In a survey of Borough households, **parks and gardens**, and natural open spaces were considered to be the most important open spaces in the Borough. Apart from cemeteries and churchyards and allotments, all open space types were considered to be very important by over 80% respondents. Findings also indicate that usage of open space sites is high. Only 3% of respondents never use parks and gardens, 22% of respondents use green corridors on a daily basis, whilst 16% of respondents use natural and semi-natural open space daily.⁷¹
- 5.2.10 Only a small percentage of the respondents felt that there was ‘more than enough’ of any of the open space typologies⁷² (i.e. between 3% and 5%). The majority felt the amount of parks/public gardens (65%), natural/semi natural (64%); cemeteries and churchyards (46%) and amenity greenspace (45%) was ‘about right’.⁷³
- 5.2.11 There is a total of 76 natural and semi-natural sites in the Borough. Of these sites only three are considered to have high quality accessibility and usage. These are Roundwood Grove Lake; Warley Place Nature Reserve; and Thriftwood Scout Camp.⁷⁴
- 5.2.12 In total, the Borough’s **allotment sites** accommodate 596 plots. According to a 2007 audit, there were waiting lists at some of these allotment sites and demand for plots was continuing to rise.⁷⁵ A more recent 2012 assessment of the sites found that in total 139 people were on waiting lists for plots in the Borough, so indicating that demand has continued to outstrip supply.⁷⁶
- Deprivation*
- 5.2.13 Whilst the Borough can on the whole be considered to be relatively affluent, there are some areas of relative deprivation (Figure 5.4). A number of areas of deprivation are concentrated on the outskirts of the town of Brentwood, particularly to its south-east. The most deprived Super Output Area (SOA) in the Borough is found in this area (outlined in yellow in Figure 5.4). It is ranked 9,468th most deprived out of 32,482 SOAs nationally.⁷⁷
- 5.2.14 Rural deprivation is an issue in some areas of the Borough, with particular pockets of deprivation found to the south and east of the Brentwood urban area.
- 5.2.15 A large proportion of the SOAs in the Borough are amongst the 20% least deprived nationally. Altogether 19 of Brentwood’s 45 LSOAs are in this band, ranking from 27,696th to 32,333th nationally (out of a total of 32,482 SOAs, where 1 = most deprived).

⁷⁰ 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 11/2012)

⁷¹ *ibid*

⁷² Parks and gardens; Natural open spaces; Green corridors; Amenity greenspace; Children and young people; Outdoor sports facilities; Allotments; and Cemeteries and churchyards.

⁷³ 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 11/2012)

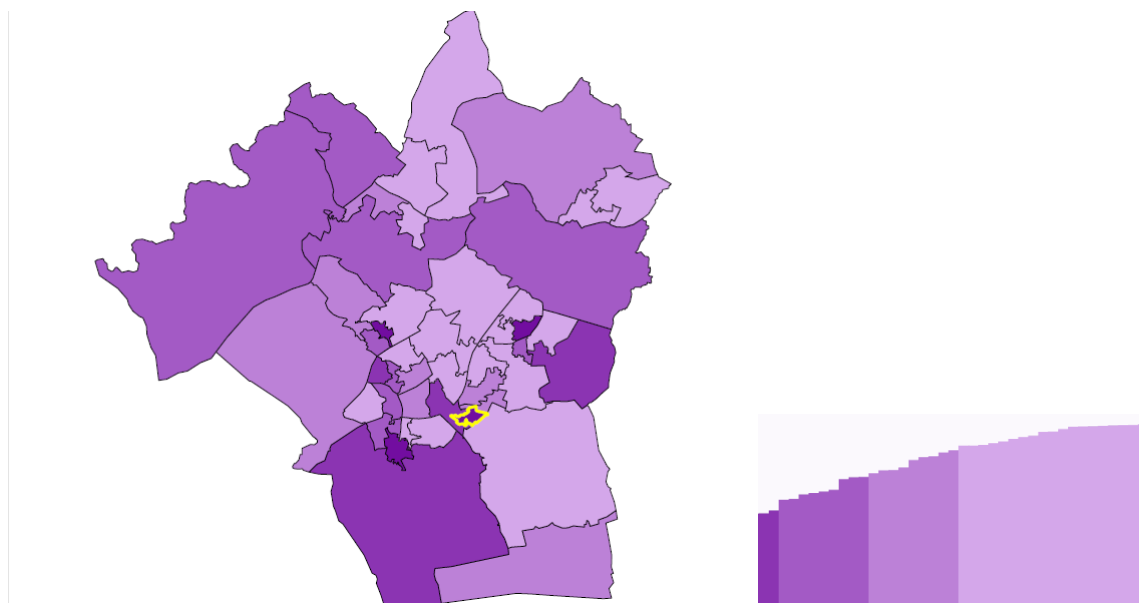
⁷⁴ *ibid*

⁷⁵ *ibid*

⁷⁶ Brentwood borough Council – Personal communication (09/05/2013)

⁷⁷ Office for National Statistics – Neighbourhood Statistics [online] available at <http://www.neighbourhood.statistics.gov.uk/dissemination> (accessed 11/2012)

Figure 5.4: 'Multiple Deprivation' (according to IMD2010) in Brentwood by Lower Super Output Area with LSOAs shaded according to level of multiple deprivation (darker purple = more deprived). The most deprived LSOA in the Borough is highlighted⁷⁸



Education

- 5.2.16 There are 24 primary schools and 6 secondary schools within the Borough of Brentwood. There are no higher education facilities in the Borough. The Adult Community Learning centre at Bishops Hill provides further education to adults.⁷⁹ Primary schools in the Borough are regarded as being at capacity, particularly in the Brentwood urban area.⁸⁰
- 5.2.17 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.⁸¹ 23% of the Borough's population have no qualifications, compared to 29.1% in England.⁸²

Community facilities

- 5.2.18 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 the Hermitage Gallery; plus 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.⁸³

⁷⁸ Office for National Statistics – Neighbourhood Statistics [online] available at <http://www.neighbourhood.statistics.gov.uk/dissemination> (accessed 11/2012)

⁷⁹ 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 11/2012)

⁸⁰ Brentwood Borough Council (2013) Personal communication [N.B. This Information will be included in the forthcoming Brentwood Borough Council Infrastructure Delivery Plan]

⁸¹ 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 11/2012)

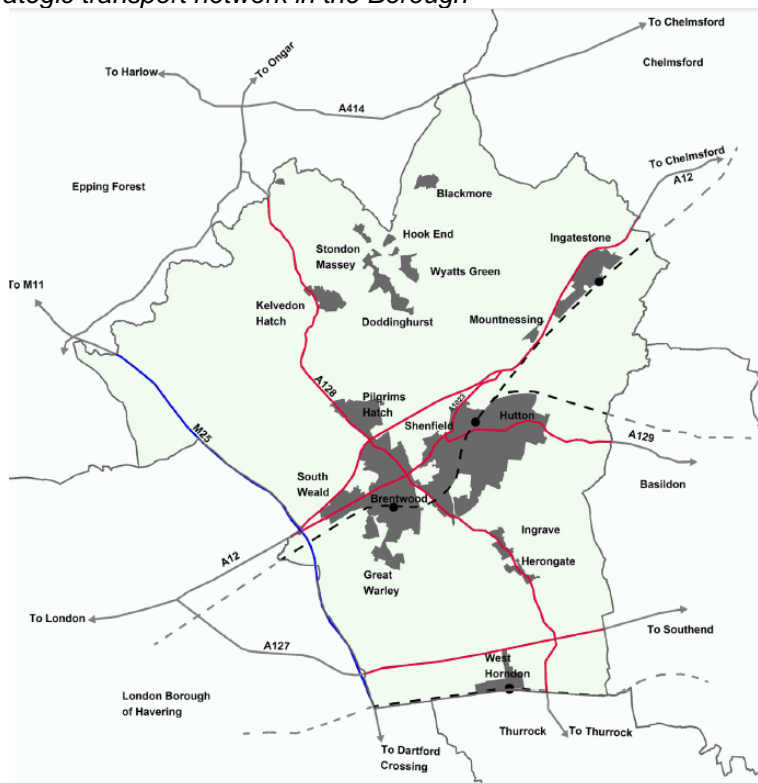
⁸² Brentwood Borough Council (2012) Annual Monitoring Report 2010/11 [online] available at: <http://www.brentwood.gov.uk/index.php?cid=880> (accessed 11/2012)

⁸³ *ibid*

Transport

- 5.2.19 The Borough is well served by road (Figure 5.5). The M25 passes through the west of the Borough, whilst the A12 (London to Colchester and Ipswich) and the A127 (London to Southend) also pass through from east to west. The M25 has recently been widened from three to four lanes between the M11 (Junction 27) and A13 (Junction 30).⁸⁴

Figure 5.5: Strategic transport network in the Borough



- 5.2.20 Levels of car ownership in Brentwood are high. In 2006, over 80% of households owned a car, with over 40% owning two or more (compared to a national average of 29%). Congestion can be a severe problem on both the strategic and local road network; particularly during peak hours. It is predicted that this trend is likely to continue.⁸⁵
- 5.2.21 The Borough has four railway stations in total, with the main lines from London Liverpool Street to both Norwich and Southend-on-Sea stopping at Shenfield and Ingatestone (fast services) and Brentwood (metro services). Services from London Fenchurch Street also travel through the Borough, stopping at West Horndon on their way to Southend-on-Sea.⁸⁶ The main terminus for Crossrail will be located at Shenfield. This will result in station improvements at both Shenfield and Brentwood stations, plus an increase in capacity.⁸⁷
- 5.2.22 The Borough's bus services are centred on Brentwood Town. Services outside of the town are limited, particularly at off-peak times.

⁸⁴ Highways Agency (2012) M25 Junctions 27-30 Widening [online] available at: <http://www.highways.gov.uk/roads/road-projects/m25-junctions-27-30-widening/> (accessed 05/2013)

⁸⁵ 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 11/2012)

⁸⁶ ibid

⁸⁷ ibid

5.2.23 The Borough's road and rail gives access to airports at Stansted, City, Southend, Gatwick and Heathrow, port facilities at Tilbury, Harwich and Felixstowe, plus south coast ports via the Dartford Crossing.⁸⁸

5.2.24 In terms of accessibility to services by public transport, 99.75% of total net housing completions in the Borough during 2010/11 were within 30 minutes of the following local services: GP, Hospital, Primary school, Secondary school, Post 16 education, Employment Area, and Major retail centre.⁸⁹

Gypsies & Travellers

5.2.25 There was a rise in unauthorised caravans from January 2007, to January 2009, after which there was a sharp decline due to a number of temporary permissions being granted. However, the number of unauthorised sites has again increased. In January 2012 there were 41 caravans on unauthorised sites and 56 on authorised private sites.⁹⁰

Future baseline assuming 'business as usual'

5.2.26 The population of the Borough is predicted to grow and age in future. This will place pressure on health and community facilities, which are likely to face both a higher number of users and a more varied and demanding set of requirements from these users. Without Plan guidance, steps taken towards the maintenance and provision of such services may not be sufficient to meet these future requirements.

5.2.27 Without efforts to modernise and coordinate the Borough's transport system through the Plan it is less likely that Brentwood will support thriving local communities with accessible services. Increased physical activity is less likely to occur without infrastructure to encourage active forms of transport, with resulting negative health implications.

5.2.28 In the absence of the Plan it is less likely that development and infrastructure will be directed towards those areas of the Borough that currently suffer from the highest levels of deprivation. As a result the gap between the best and worst off may widen, with negative social and health implications for all Brentwood residents. In addition, without the Plan development is more likely to happen without the infrastructure needed to support it, stretching existing services and infrastructure. This may disproportionately affect those who depend most on these.

5.2.29 Climate change projections for Essex⁹¹ highlight an increase in risk to people, property and the environment from flooding; and hotter and sunnier summers putting public health and safety at greater risk. The projections also highlight that predicted hotter summers could cause greater "heat stress" to buildings, utilities and the transport system; which could adversely affect residents' health and accessibility to services and employment opportunities.

⁸⁸ 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 11/2012)

⁸⁹ Brentwood Borough Council (2012) Annual Monitoring Report 2010/11 [online] available at: <http://www.brentwood.gov.uk/index.php?cid=880> (accessed 11/2012)

⁹⁰ *ibid*

⁹¹ 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 12/2012)

5.3 What are the key issues that should be a focus of SA?

- As the number of people aged over 85 in Brentwood grows there will be a need for provision of services and suitable accommodation for older people.
- There is a need to reduce health inequalities.
- Ensure that Gypsy and Traveller communities have suitable access to services and healthcare and that sufficient sites are available to meet demand.
- 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 a need to improve levels of educational performance in certain areas of the Borough.
- As the number of young people grows there will a need to ensure that there is sufficient provision of education facilities across the Borough.
- There is a need to better access to services and facilities in rural areas of Brentwood.
- Improved open spaces and recreation facilities are a requirement in certain areas, with a particular focus on youth facilities needed in many places.

6 CULTURAL HERITAGE⁹²

6.1 What's the sustainability 'context'?

The National Planning Policy Framework (NPPF)

6.1.1 Key messages include -

- Protect and enhance valued landscapes. 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.
- Set out a 'positive strategy' for the 'conservation and enjoyment of the historic environment', including those heritage assets that are most at risk.

Supplementing the NPPF

Further sustainability context is provided by a review of: the 'heritage at risk' register produced by English Heritage (Box 6.1); and Government's vision and strategic aims in relation to the historic environment (Box 6.2).

Box 6.1: English heritage policy

Heritage at Risk⁹³ lists every heritage asset currently considered to be at risk in the UK according to local planning authority. Heritage assets are split into a number of categories namely; buildings, places of worship, scheduled monuments, registered parks and gardens, registered battlefields, protected wreck sites and conservation areas. With regards to Brentwood the English Heritage study considers that there are two buildings with innate heritage value at risk.

Box 6.2: Other Government policy

The Government's Statement on the Historic Environment for England⁹⁴ sets out its vision for the historic environment. It calls for those who have the power to shape the historic environment to recognise its value and to manage it in an intelligent manner in light of the contribution that it can make to social, economic and cultural life. Also of note is the reference to promoting the role of the historic environment within the Government's response to climate change and the wider sustainable development agenda.

Established Brentwood specific sustainability objectives

6.1.2 Table 6.1 identifies those sustainability objectives established, in 2007, for the purposes of the Brentwood Core Strategy SA, that are relevant to this topic chapter (given the difference in scope between the Core Strategy and the Local Plan).

⁹² N.B. Issues relating to 'Landscape' are considered in Chapter 10: Landscape.

⁹³ English Heritage (2012) Heritage at Risk [online] available at: <http://www.english-heritage.org.uk/content/publications/publicationsNew/heritage-at-risk/har-2012-lpa/HAR-entries-lpa-2012.pdf> (accessed 11/2012)

⁹⁴ HM Government (2010) The Government's Statement on the Historic Environment for England [online] available at: http://webarchive.nationalarchives.gov.uk/+/http://www.culture.gov.uk/reference_library/publications/6763.aspx (accessed 11/2012)

Table 6.1: Relevant objectives and selected sub-objectives from the Brentwood Core Strategy SA Scoping Report⁹⁵ (2007)

CORE STRATEGY SA OBJECTIVE	SELECTED SUB-OBJECTIVES
Protect and enhance the built and historic environment and landscapes in the Borough	<ul style="list-style-type: none"> Protect and enhance the historic landscape character Encourage the restoration of historic buildings classified as at risk Protect and enhance the historic integrity of the Borough Protect the historic settlement pattern Protect and enhance designated and undesignated historic sites and areas of significance Conserve and enhance local diversity and distinctiveness
Revitalise town centres and promote a return to sustainable urban living	<ul style="list-style-type: none"> Enhance the vitality and viability of existing town centres through encouraging more shops and services (in a manner which respects the historic character and existing townscape)

6.1 What's the sustainability 'baseline'?

Current baseline

- 6.1.1 Altogether there are 13 Conservation Areas, 518 listed buildings and 12 Scheduled Ancient 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.⁹⁶
- 6.1.2 There are two Listed Buildings in the Borough of Brentwood which are listed on English Heritage's Heritage at Risk Register.⁹⁷ These are:
- Chantry Chapel and Mausoleum: Grade II* listed building, poor condition
 - Thoby Priory ruins: Grade II listed building / Scheduled Monument, very bad condition

Future baseline assuming 'business as usual'

- 6.1.3 The cultural heritage of the Borough is likely to face increased pressure in future years due to the effects of a growing population and the new developments associated with it. Without protective measures through the implementation of the Plan, these heritage assets may be more likely to be lost or damaged by development, and opportunities for their redevelopment and restoration may be lost.

6.2 What are the key issues that should be a focus of SA?

- 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.
- New development must be of an appropriate scale and design so that existing character is respected.

⁹⁵ Brentwood Borough Council Local Development Framework: Core Strategy & DC Policies DPD and Gypsy & Traveller Scoping Report [online] available at: http://www.brentwood.gov.uk/pdf/pdf_1346.pdf (accessed 04/2013)

⁹⁶ 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 11/2012)

⁹⁷ 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 11/12)

7 ECONOMY AND EMPLOYMENT

7.1 What's the sustainability 'context'?

Internationally established objectives

- 7.1.1 In 2010, the European Union published its strategy for achieving growth up until 2020.⁹⁸ This strategy focuses on smart growth, through the development of knowledge and innovation; sustainable growth, based on a greener, more resource efficient and more competitive economy; and inclusive growth, aimed at strengthening employment, and social and territorial cohesion.

The National Planning Policy Framework (NPPF)

- 7.1.2 Key messages include -

- The planning system can make a contribution to building a strong, responsive economy by 'ensuring that sufficient land of the right type is available in the right places and at the right time to support growth and innovation; and by identifying and coordinating development requirements, including the provision of infrastructure'.
- Capitalise on 'inherent strengths', and to 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'.
- Support competitive town centre environments.
 - Edge of town developments should only be considered where they have good access. This should be followed with an impact assessment to ensure the town centre remains viable in the long term.
 - Enhance and retain markets is also outlined.
- Support the sustainable growth and expansion of all types of business and enterprise in rural areas and promote the development and diversification of agricultural and other land-based rural businesses.

Supplementing the NPPF

- 7.1.3 Further sustainability context is provided by a review of: Government's Local Growth White Paper (Box 7.1); reports focused on two nationally recognised issues: the rural economy and 'supporting local parades' (Box 7.2); and the sub-regional context for economic growth and housing delivery (Box 7.3).

⁹⁸ European Commission (2010) Europe 2020: A strategy for smart, sustainable and inclusive growth [online] available at: <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2010:2020:FIN:EN:PDF> (accessed 11/12)

Box 7.1: The Local Growth White Paper

The Local Growth White Paper notes that Government interventions should support investment that will have a long term impact on growth, working with markets rather than seeking to create artificial and unsustainable growth. In some cases this means focusing investment at areas with long term growth challenges, so that these areas can undergo transition to an economy that responds to a local demand. Places that are currently successful may also wish to prioritise activity to maximise further growth by removing barriers, such as infrastructure constraints. However, the White Paper also emphasises that: 'This does not mean that every place will grow at the same rate or that everywhere will, or will want to, become an economic powerhouse. Long term economic trends make differences in economic performance inevitable and these can and do change over time'.

Specific examples of areas where it makes sense for Government intervention to tackle market failures include: investment in infrastructure; tackling barriers such as transport congestion and poor connections; other support to areas facing long term growth challenges where this can help them manage their transition to growth industries; and strategic intervention where it can stimulate private sector investment in new green technology in strategic locations.

Finally, the White Paper identifies that economic policy should be judged on the degree to which it delivers strong, sustainable and balanced growth of income and employment over the long-term. More specifically, growth should be: broad-based industrially and geographically, ensuring everyone has access to the opportunities that growth brings (including future generations), whilst also focused on businesses that compete with the best internationally.

Box 7.2: A closer look at two specific issues

Despite their local economic and social importance, shopping parades have been subject to a continued decline. In order to buck this trend, the report **Parades of Shops – towards an understanding of performance and prospects** suggests the need for appropriate policy responses. It is suggested that:

- The diversity of neighbourhood parades is recognised through flexible policy initiatives. These responses should look to 'reinforce local distinctiveness and community value, and develop the social function of neighbourhood parades' with a view to underpinning 'ongoing commercial viability'.
- The role of local parades in developing local economies by 'providing a 'seed-bed' function for start-up businesses' could be enhanced through the focused support for their 'enterprise formation and employment growth potential'.

Another important area of concern for local economic growth is rural areas. The 'significant untapped potential' of rural areas to contribute to economic growth and employment is the focus of the report **Missing Links**.⁹⁹ It considers distance to market to be a crucial concern and calls for the improvement of transport links and the provision of adequate digital infrastructure.

⁹⁹ Federation of Small Businesses (2012) The Missing Links - Revitalising our rural economy [online] available at: http://www.fsb.org.uk/policy/assets/rural_report_web_final_proof.pdf (accessed 11/2012)

Box 7.3: Region / sub-region specific context

The **South-East LEP**¹⁰⁰ sets out as its mission the creation of ‘the most enterprising economy in England. In order to achieve this aim, it sets out a number of objectives that are to be achieved over the next twenty years. Of particular relevance in this case are the following:

- Every community across the LEP will be served by superfast broadband networks; and
- There will be a steady flow of public and private investment in strategic infrastructure, including creating even better connections to key global markets.

On a more local level, the **Heart of Essex: Economic Futures Study**¹⁰¹ presents two possible future scenarios which serve as potential frameworks for determining locally-derived employment targets in the absence of the now revoked Regional Strategy.

- Under the ‘dwelling constrained scenario’ the economic implications of emerging local authority housing targets are considered, with 13,400 new jobs projected across the Heart of Essex sub-region by 2031 including 4,800 in Brentwood.
- Under the ‘sector-derived scenario’ planned investment or knowledge about future sector potential is also given consideration. In this scenario 26,000 new jobs are projected across the sub-region, with 5,400 in Brentwood.

The findings of the study show that future growth will be service-led in Brentwood underpinned by existing local skills and experience. Identified as particular areas for growth under a dwelling constrained scenario are:

- Land, transport, storage and professional services
- Administrative and support services
- Education

The study explains that a ‘sector derived scenario incorporates assumptions about achieving economic growth through enhanced productivity and more efficient use of existing space’. The higher employment projections associated with the sector-derived scenario may therefore be negatively impacted by Brentwood’s Green Belt constraints on employment land supply, making it difficult to accommodate land intensive sectors such as transport and storage. Mitigating this issue will rely on business capacity and resources as well as support for innovation and skills development.

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’. Identified as key to achieving this objective is the development of soft and hard infrastructure such as broadband, Crossrail, the removal of barriers to obtaining finance, and supporting businesses to identify routes to market (both domestic and export). Attracting inward investment is viewed as crucial – Crossrail, marketing, bringing forward developments of a strategic nature and ensuring that there is capacity in the Borough for new development will be key to realising higher growth levels.

Established Brentwood specific sustainability objectives

- 7.1.4 Table 7.1 identifies those sustainability objectives established, in 2007, for the purposes of the Brentwood Core Strategy SA, that are relevant to this topic chapter (given the difference in scope between the Core Strategy and the Local Plan).

¹⁰⁰ South East LEP (2012) Our Vision [online] available at: <http://southeastlep.com/about/our-vision> (accessed 11/2012)

¹⁰¹ Nathaniel Lichfield & Partners / Experian (2012) The Heart of Essex: Economic Futures Study [online] available at: <http://www.brentwood.gov.uk/pdf/06082012104212u.PDF> (accessed 04/2013)

Table 7.1: Relevant objectives and selected sub-objectives from the Brentwood Core Strategy SA Scoping Report¹⁰² (2007)

CORE STRATEGY SA OBJECTIVE	SELECTED SUB-OBJECTIVES
Protect and enhance the rural environment ensuring the countryside and multifunctional open spaces are accessible to all.	<ul style="list-style-type: none"> Promote farm diversification appropriate to the environment and ecological settings Deliver better rural infrastructure
Use natural resources (including water, fossil fuels, land and minerals) efficiently	<ul style="list-style-type: none"> Encourage consumption of local produce and establishment of farmers markets
Maintain a strong, stable, prosperous and sustainable local economy	<ul style="list-style-type: none"> Generate new jobs for people in the Borough Encourage inward investment Diversify the local economy and increase resilience to external shocks Support and encourage the growth of rural business Ensure everyone can afford a good standard of living Provide a satisfying job or occupation for everyone Increase innovation and new business start-ups Improve infrastructure provision Reduce out-commuting Help to improve people's skills Provide opportunities for learning and training Provide high quality business premises in sustainable locations
Ensure access to education and skills training in the Borough for all current and future residents	<ul style="list-style-type: none"> Ensure sufficient education facilities are provided to support new development
Revitalise town centres and promote a return to sustainable urban living	<ul style="list-style-type: none"> Enhance the vitality and viability of existing town centres through encouraging more shops and services and more people to live there

7.2 What's the sustainability 'baseline'?

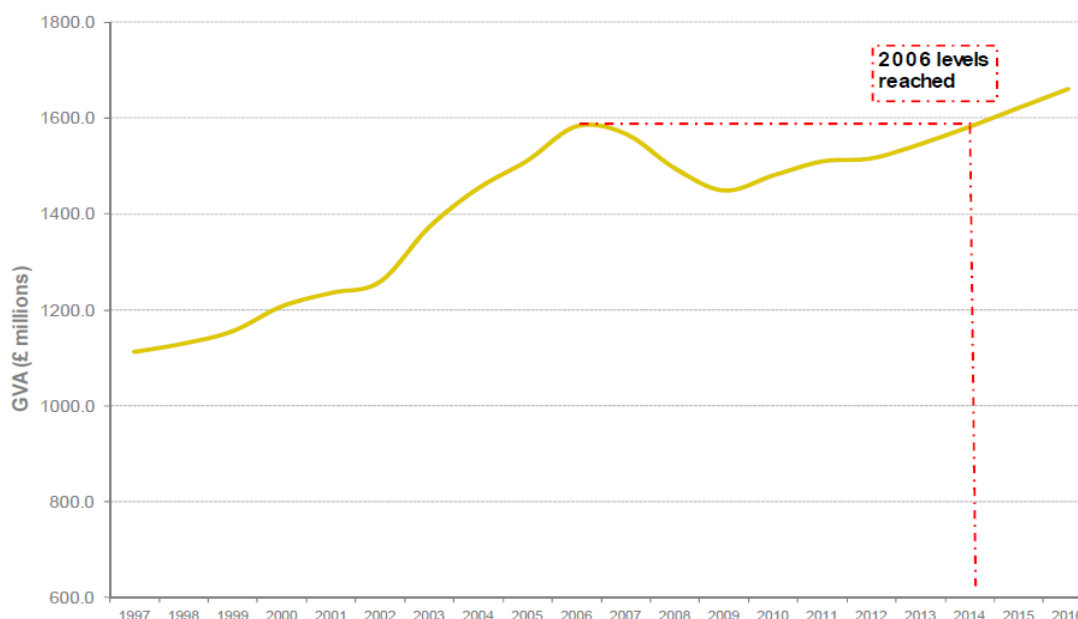
Current baseline

- 7.2.1 The Borough of Brentwood is closely connected to London's economy. In 2011, Brentwood 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 GVA has been on the rise with its contribution expected to exceed 2006 peak levels by 2014 (Figure 7.1).¹⁰³

¹⁰² Brentwood Borough Council Local Development Framework: Core Strategy & DC Policies DPD and Gypsy & Traveller Scoping Report [online] available at: http://www.brentwood.gov.uk/pdf/pdf_1346.pdf (accessed 04/2013)

¹⁰³ Nathaniel Lichfield & Partners / Experian (2012) The Heart of Essex: Economic Futures Study [online] available at: <http://www.brentwood.gov.uk/pdf/06082012104212u.PDF> (accessed 04/2013)

Figure 7.1: GVA in Brentwood Borough (future and projected)¹⁰⁴



7.2.2 According to a 2012 study, average incomes in the Borough stand at £708 per week which is higher than both the regional averages (£529) and national averages (£503). This is indicative of the high rates of out-commuting to high skilled, well-paid jobs in London (amounting to 55% of the Borough's resident workforce). In contrast the average weekly income of those residents working in Brentwood is £564 per week which is still above the national and regional average.¹⁰⁴

7.2.3 The unemployment rate for Brentwood rose to 4.6% in 2011, which was lower than the regional average (6.7%) and the UK average (7.7%). Brentwood's total number of residents in employment stood at 38,500 in the same year. However, because of the economic downturn employment growth declined to -0.5% between 2005 and 2011.¹⁰⁴

Economic Sectors

7.2.4 Despite Brentwood's economy being smaller than the UK average, knowledge sectors found locally are higher than average. As a result, in 2010, employment in R&D, finance and business services make up the highest proportion of Brentwood's contribution. Another significant sector within the Borough is construction in which there is a higher proportion of the local population employed than elsewhere in the UK. The sector has been adversely affected by the global recession, but signs indicate that optimism is returning.¹⁰⁴

7.2.5 Accommodation and food services are also significant sectors, albeit displaying limited employment growth over the past decade.¹⁰⁴ The 2008 Brentwood Borough Hotel and Visitor Accommodation survey identified corporate, leisure break and function markets as sources of future growth.¹⁰⁵ Finally, the land, transport, storage and post sector and the health and residential care sectors, whilst only relatively small, have shown strong employment growth rates over the past decade.¹⁰⁴

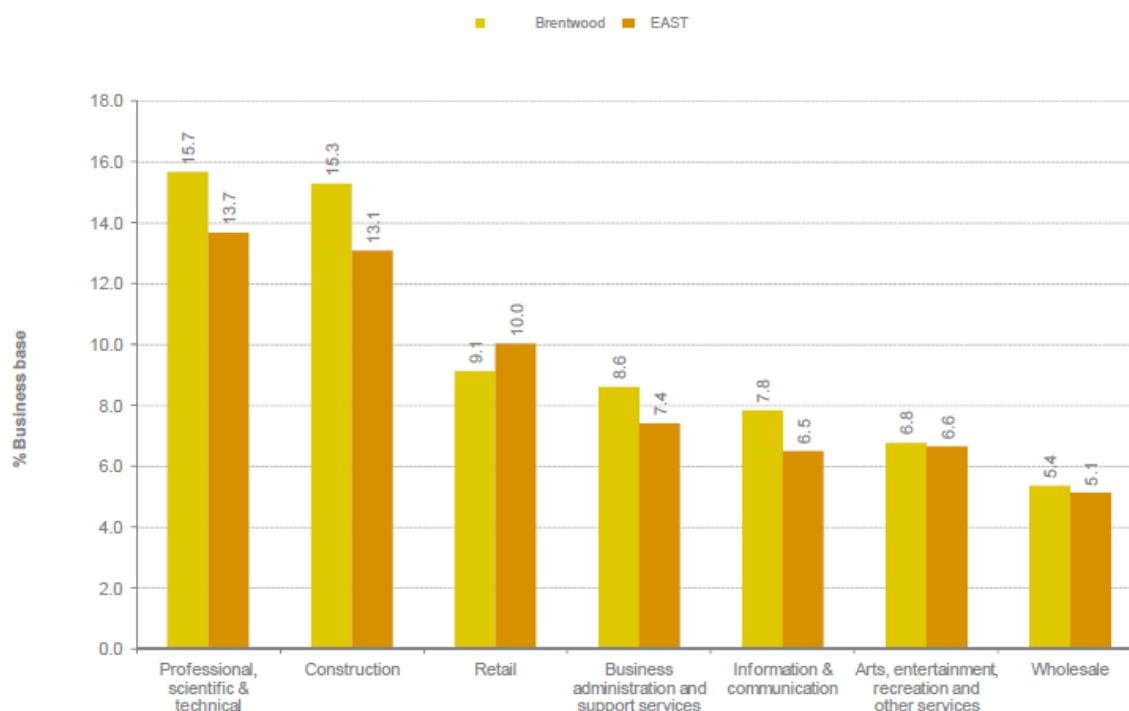
¹⁰⁴ Nathaniel Lichfield & Partners / Experian (2012) The Heart of Essex: Economic Futures Study [online] available at: <http://www.brentwood.gov.uk/pdf/06082012104212u.PDF> (accessed 04/2013)

¹⁰⁵ Hotel Solutions (2008) Brentwood Borough Hotel and Visitor Accommodation Futures [online] available at: <http://www.brentwood.gov.uk/pdf/25062008163343u.pdf> (accessed 11/2012)

7.2.6 In the Borough there are a higher proportion of small businesses employing 0-4 employees (73%) compared to the national (68%) and East of England (70%) averages.¹⁰⁶ Furthermore between 2009 and 2011 the number of business with 0-4 employees grew by 0.4% annually, whilst nationally a -1.7% decrease was observed year on year. During the same period an annual increase of 2.8% was observed in the proportion of businesses with 11-19 employees, which is in contrast with the other Boroughs and Districts in the sub-region where declines were experienced.¹⁰⁷

7.2.7 Professional, scientific and technical and the construction sectors make up just under a third of Brentwood's businesses (31% of the total business base) which is a larger share than the regional average for these sectors. However between 2009 and 2011 the professional, scientific and technical sectors have grown by 5% year on year whilst the construction sector has declined by 1%. The third largest sector is retail (9%) which is 1% lower than the regional average. It is recommended that Brentwood Town Centre retail strengths should be built on and its retail and commercial offering grown. Business administration and support services combined with information and communication also make up a significant proportion of total business which at 16% is above the regional average (Figure 7.2).¹⁰⁸

Figure 7.2: Sectors in Brentwood and the East of England¹⁰⁷



7.2.8 Brentwood's Annual Monitoring Report notes that in 2011/12 there was no net loss or addition of business floorspace. Whilst new employment land is constrained by the Boroughs Green Belt location, there is outstanding planning permission for a total of 1.13ha for all business uses, which shows potential for future employment provision in the Borough.¹⁰⁹

¹⁰⁶ ONS UK Business, Activity, Size and Location 2011

¹⁰⁷ Nathaniel Lichfield & Partners / Experian (2012) The Heart of Essex: Economic Futures Study [online] available at: <http://www.brentwood.gov.uk/pdf/06082012104212u.PDF> (accessed 04/2013)

¹⁰⁸ Chase and Partners LLP (2011) Brentwood Borough Retail and Commercial Leisure Study <http://www.brentwood.gov.uk/pdf/15112011145752u.pdf> (accessed 11/2012)

¹⁰⁹ Brentwood Borough Council (2012) Annual Monitoring Report [online] available at: <http://www.brentwood.gov.uk/pdf/19032013155413u.pdf> (accessed 04/2013)

7.2.9 An employment land review carried out in 2010 found that the majority of 48 employment sites appraised were considered to be of 'average' quality, although the majority of existing local businesses reported high satisfaction levels with current business premises.¹¹⁰

7.2.10 The main employment centres in Brentwood are located in the central part of the Borough (Brentwood Town Centre and Shenfield) and the north east of the Borough in Ingatestone.

Brentwood Urban Area

7.2.11 Brentwood is a busy and densely populated commuter town and the only town in the Borough. The High Street is characterised by national retailers occupying the largest premises interspersed with a range of small independent local businesses. As a retail centre its market tends to be in the middle to lower-middle bracket, rather than higher end retailers.¹¹¹

7.2.12 Brentwood's biggest competitors are the retail centres of Chelmsford, Romford, Basildon and Lakeside shopping centre. In 2009, planning permission was granted for a mixed use retail and leisure development including a multiplex cinema on land to the north of the High Street. This is the largest town centre development in the past ten years.¹¹¹ The night-time economy has also grown, including increased numbers of night-clubs, restaurants and bars.¹¹²

7.2.13 Over recent years Brentwood has experienced growth in its bar, restaurant and café sector. As such, a significant percentage of its town centre shopping outlets are utilised for these purposes. The hospitality sector too has experienced growth with Premier Inn Hotels moving into the town.¹¹³

7.2.14 The majority of service sector business and employment in the Borough is concentrated in Brentwood Town Centre, Brentwood Station area and Warley Business Park. Some of the major employers located in the town include Ford Motor Company, BT, Countryside Properties, Liverpool Victoria, BNY Mellon and Océ (Canon Group).¹¹⁴

Shenfield

7.2.15 Shenfield is part of the wider Brentwood urban area and is regarded as being a District Centre. It is located about three quarters of a mile from Brentwood Town Centre, with its centre formed along a single street called Hutton Road. Shenfield is well connected by road and rail; it is the only centre in the Borough serviced by a fast train to Central London making it an important commuter hub. Of the 90 retail units trading in the village in 2011, the distribution of retail unit uses was dominated by service, comparison and convenience retailers (43 units, 26 units and 14 units respectively). This is fairly typical for a centre of its size. Capacity for growth in Shenfield has been very limited over recent years due to a lack of underdeveloped land in the centre, a consequence of the interspersed nature of retail and residential land use.¹¹⁵

¹¹⁰ Atkins (2010) Epping Forest District and Brentwood Borough Employment Land Review [online] available at <http://www.brentwood.gov.uk/pdf/13102010165639u.pdf> (accessed 11/2012)

¹¹¹ The Essex Design Initiative (2009) Brentwood Town Centre Regeneration Strategy: Final Report [online] available at: <http://www.brentwood.gov.uk/pdf/29102010101853u.pdf> (accessed 11/2012)

¹¹² Brentwood Borough Council (2013) Personal Communication

¹¹³ The Essex Design Initiative (2009) Brentwood Town Centre Regeneration Strategy: Final Report [online] available at: <http://www.brentwood.gov.uk/pdf/29102010101853u.pdf> (accessed 11/2012)

¹¹⁴ *ibid*

¹¹⁵ Chase and Partners LLP (2011) Brentwood Borough Retail and Commercial Leisure Study [online] available at <http://www.brentwood.gov.uk/pdf/15112011145752u.pdf> (accessed 11/2012)

Ingatestone

- 7.2.16 Another important local centre is the large, historic, and affluent village of Ingatestone, located approximately 3 miles along the A12 to the north east of Brentwood. Ingatestone has a linear shape, its shopping parade having formed along an old Roman road (the B1002) which is the modern day village High Street. The 62 retail units trading in the village in 2011¹¹⁶ sustain the local residential population and surrounding villages. The distribution of retail unit uses, dominated by comparison and convenience retailers (25 and 21 units respectively), is consistent with that of a local service and convenience centre.

Future baseline assuming 'business as usual'

- 7.2.17 Whilst the Borough has performed relatively well in terms of economic performance and employment levels, it is likely to be more difficult to sustain this trend in future in the absence of Plan guidance. The provision of key infrastructure and up-to-date employment sites that can support business growth and attract investment may be more limited. This could result in the loss or limited growth of key sectors of the local economy, such as knowledge industries. A failure to maintain or grow the local economy could result in falling wages and greater unemployment amongst those groups with less access to the central London economy.
- 7.2.18 The Borough's retail sector is an area of the local economy that may fail to realise its full potential without Plan support. The sector is currently performing below the regional average and there is a need to build on its current strengths if this situation is to be improved upon given that other competing centres are seeking to improve their offer in terms of floorspace or through improvements to their environment or functionality.^{117 118} However, without Plan guidance new retail development is likely to occur in a more ad hoc fashion, potentially resulting in unsuitable development, or missed opportunities to concentrate retail investment in key areas; for example growth in out-of-centre development, which may occur as a result of unchecked market forces). Such development could result in the loss of business to competing centres.

7.3 What are the key issues that should be a focus of SA?

- There is a need to protect and support the Borough's smaller centres and parades.
- The competitiveness of key employment areas such as Brentwood Town Centre (including the area around Brentwood Station), and Warley Business Park must be supported, including by promoting sites for high quality office development.
- Opportunities exist to support investment that leads to high value, knowledge-based employment activities.
- There is a need to consider future opportunities and consequences associated with the Shenfield and Brentwood Crossrail link.
- There is a need to support a thriving town centre focused in and around Brentwood High Street through a good balance of shopping (comparison and convenience retail) and other uses – services, employment and residential.

¹¹⁶ *ibid*

¹¹⁷ Nathaniel Lichfield & Partners / Experian (2012) The Heart of Essex: Economic Futures Study [online] available at: <http://www.brentwood.gov.uk/pdf/06082012104212u.PDF> (accessed 04/2013)

¹¹⁸ Chase and Partners LLP (2011) Brentwood Borough Retail and Commercial Leisure Study <http://www.brentwood.gov.uk/pdf/15112011145752u.pdf> (accessed 11/2012)

8 FLOODING

8.1 What's the sustainability 'context'?

The National Planning Policy Framework (NPPF)

8.1.1 Key messages include -

- Direct development away from areas highest at risk of flooding, 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.
- Take account of the effects of climate change in the long term, taking into account a range of factors including flooding. Adopt proactive strategies to adaptation and manage risks through adaptation measures including well planned green infrastructure.

Supplementing the NPPF

8.1.2 Box 8.1 discusses the new approaches to flood risk management brought about through the 2010 Flood and Water Management Act. This is supplemented with additional information on the benefits of using Sustainable Urban Drainage Systems (SUDs) in developments. Box 8.2 details a series of recommendations made for tackling flood risk in the Borough.

Box 8.1: Further Government guidance on flood risk

The **Flood and Water Management Act**¹¹⁹ 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)
- 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
- Planning to roll back development in coastal areas to avoid damage from flooding or coastal erosion
- Sustainable drainage systems (SuDS)¹²⁰

Further guidance is provided in the document **Planning for SuDS**.¹²¹ This report calls for greater recognition of the multiple benefits that water management can present. It suggests that successful SuDS are capable of 'contributing to local quality of life and green infrastructure'.

Box 8.2: Local level flood risk context

The 2011 **Brentwood Level 1 Strategic Flood Risk Assessment**¹²² includes an appraisal of the differences in extent between Flood Zones 2 & 3 and so highlights areas at potential risk of flooding should climate change result in higher rates of rainfall and/or more intense rainfall in the future. The key observation of the study is that the main risk of future flooding in the Borough will come from surface water/pluvial flooding.

A number of recommendations are made in the study, these include the adoption of Surface Water Management Plans to assess and mitigate pluvial flood risk. Another recommendation is to incorporate SUDs in all new developments over 0.25 hectares, as well as all new development in Flood zones 2 and 3 to reduce surface run off, so lowering the potential for fluvial/pluvial flooding downstream.

¹¹⁹ Flood and Water Management Act (2010) [online] available at: <http://www.legislation.gov.uk/ukpga/2010/29/contents> (accessed 11/12)

¹²⁰ N.B. The government proposes that the provisions of Schedule 3 to the Flood and Water Management Act 2010 will come into force on the 1st of October 2012 and will make it mandatory for any development in England or Wales to incorporate SuDS.

¹²¹ CIRIA (2010) Planning for SuDS – making it happen [online] available at: <http://www.ciria.org/service/knowledgebase/AM/ContentManagerNet/ContentDisplay.aspx?Section=knowledgebase&NoTemplate=1&ContentID=18465> (accessed 11/12)

¹²² Entec (2011) Brentwood Level 1 Strategic Flood Risk Assessment [online] available at: <http://www.brentwood.gov.uk/pdf/21032011162645u.pdf> (accessed 11/12)

Established Brentwood specific sustainability objectives

- 8.1.3 Table 8.1 identifies those sustainability objectives established, in 2007, for the purposes of the Brentwood Core Strategy SA, that are relevant to this topic chapter (given the difference in scope between the Core Strategy and the Local Plan).

Table 8.1: Relevant objectives and selected sub-objectives from the Brentwood Core Strategy SA Scoping Report¹²³ (2007)

CORE STRATEGY SA OBJECTIVE	SELECTED SUB-OBJECTIVES
Deliver sustainable use of land	<ul style="list-style-type: none"> Minimise risk of flooding taking into account climate change and the fact that some infrastructure, such as water and sewerage, may need to occur in flood risk areas Ensure new development does not cause additional flood risk (including away from flood risk areas due to inadequate drainage infrastructure)
Protect and enhance the natural environment	<ul style="list-style-type: none"> Ensure regionally and locally designated sites are protected and enhanced taking into account climate change

8.2 What's the sustainability 'baseline'?

Current baseline

- 8.2.1 The spatial extent of fluvial flood risk is limited, with the majority of areas categorised as Flood Zones 2 and 3 found in rural areas. Heybridge, Ingatestone and areas to the west and east of the Brentwood urban area are noted as being the urban areas most at risk of flooding.¹²⁴ Those areas most at risk of flooding are found around the main water courses. The most significant area of fluvial flood risk is in the north-west of the Borough, in the vicinity of the River Roding.¹²⁵
- 8.2.2 Surface water, or 'pluvial' flooding, is likely to be the most significant cause of flooding in the Borough.¹²⁶ There is a higher risk of surface water flooding in urban areas, although these risk areas are not considered to be widespread.¹²⁷ For much of the urban area of Brentwood the infiltration potential of soils is high, meaning that infiltration SUDS are likely to be a suitable mitigation measure.¹²⁸
- 8.2.3 It is considered unlikely that flood extent is to be significantly altered by climate change. The only area highlighted for significant increases in flood extent is along the Borough's north-western boundary. The main risk of future flooding in the Borough will come from surface water/'pluvial' flooding when intense rainfall events lead to large volumes of run off. In such cases, infiltration can be reduced by manmade surfaces and drains and sewers become overwhelmed.¹²⁹

¹²³ Brentwood Borough Council Local Development Framework: Core Strategy & DC Policies DPD and Gypsy & Traveller Scoping Report [online] available at: http://www.brentwood.gov.uk/pdf/pdf_1346.pdf (accessed 04/2013)

¹²⁴ Entec (2011) Brentwood Level 1 Strategic Flood Risk Assessment [online] available at: <http://www.brentwood.gov.uk/pdf/21032011162645u.pdf> (accessed 11/12)

¹²⁵ 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 11/2012)

¹²⁶ Entec (2011) Brentwood Level 1 Strategic Flood Risk Assessment [online] available at: <http://www.brentwood.gov.uk/pdf/21032011162645u.pdf> (accessed 11/12)

¹²⁷ ibid

¹²⁸ ibid

¹²⁹ ibid

Future baseline assuming 'business as usual'

- 8.2.4 In future, 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, particularly in winter. In the absence of the Plan developments are less likely to incorporate design features, such as SUDS, which may help to alleviate against such flooding. Without Plan guidance development is also more likely to occur in areas of fluvial flood risk, resulting in a greater probability of damage.

8.3 What are the key issues that should be a focus of SA?

- 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.

9 HOUSING

9.1 What's the sustainability 'context'?

The National Planning Policy Framework (NPPF)

9.1.1 Key messages include -

- To 'boost significantly the supply of housing', local planning authorities should meet the 'full, objectively assessed need for market and affordable housing' in their area. They should prepare a Strategic Housing Market Assessment to assess their full housing needs, working with neighbouring authorities where housing market areas cross administrative boundaries. The Strategic Housing Market Assessment should identify the scale and mix of housing and the range of tenures that the local population is likely to need over the plan period.
- With a view to creating 'sustainable, inclusive and mixed communities' authorities should ensure provision of affordable housing onsite or externally where robustly justified.
- In rural areas, when exercising the duty to cooperate with neighbouring authorities, local planning authorities should be responsive to local circumstances and plan housing development to reflect local needs, particularly for affordable housing, including through rural exception sites where appropriate. Authorities should consider whether allowing some market housing would facilitate the provision of affordable housing to meet local needs.
- 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, with these to be developed in accordance with the 'principles of Garden Cities'.
- The NPPF attaches great importance to the design of the built environment. It explains how good design is a key aspect in sustainable development, and how development should improve the quality of the area over its lifetime, not just in the short term. Good architecture and landscaping are important, with the use of design codes contributing to the delivery of high quality outcomes. Design should reinforce local distinctiveness, raise the standard more generally in the area and address the connections between people and places.

Supplementing the NPPF

9.1.2 Further sustainability context is provided by:

- A review of several studies that have sought to analyse how successful the Government's approach to housing has been and/or suggest possible solutions to the problems faced (Boxes 9.1 – 9.3)
- Regional sub-regional analysis of housing needs (Box 9.4).

Box 9.1: Chartered Institute of Housing analysis

The 'Housing Report'¹³⁰ collates the official figures available on housing in order to establish whether the Government's approach to housing is succeeding. A challenge identified for the Government is to produce a step change in housing in order to meet the nations needs and aspirations, especially given that: *'Many of the external pressures on the housing market, ranging from a growing and ageing population to falling incomes, are likely to intensify over the coming years'*.

The Government's performance is analysed under a number of headings, including:

- Housing Supply: A small increase of new build is recorded, but this is from a historically low base. The number of completions in 2011 was 38% below the 2007 peak.
- Overcrowding: This situation is worsening, and current measures to tackle under-occupation may not necessarily resolve the problem.
- Homelessness: There has been a large increase in homeless acceptances and rough sleepers, with this problem potentially exacerbated by further cuts to Housing benefit during 2013.
- Empty Homes: Despite 720,000 homes currently being classed as empty, the situation seems to be an improving one. This is particularly the case with long-term empty homes.
- Home Ownership: House prices are relatively steady, sales are up, and affordability is increasing. However, homeownership rates are falling and there is a decline in low cost ownership sales. Home ownership remains out of reach for most people.

Box 9.2 Joseph Rowntree Foundation analysis

The Joseph Rowntree Foundation **International Review of Land Supply and Planning Systems**¹³¹ highlights that, despite record house prices in the early 2000s, the supply of new homes did not increase significantly. This lack of responsiveness to increases in house prices has led to affordability problems. The global financial crisis and resultant recession(s) has only worsened the supply situation.

In England, perceived constraints on the supply of land include: a lack of incentives for local authorities to support new development; the nature of the house-building industry; and existing disincentives to make land available in the light of future price increases. The mechanisms for funding and providing the necessary infrastructure can act as a constraint, as can the availability and cost of finance of development. There are particular risks associated with the re-use of land as compared with greenfield sites with respect to fragmentation of ownership, risks and costs. Market volatility further increases risks and uncertainty.

The JRF study reviewed the situation in other countries and the mechanisms used to ensure sufficient house building, most of which have their equivalent in England. Of key importance are:

- Incentives to bring land forward;
- Provision of infrastructure in advance of, or alongside, development; and
- Growth management boundaries/urban growth limits

In terms of the latter, growth management boundaries/urban growth limits are used by most countries to prevent urban sprawl. To ensure price stability, the limit is normally revisited at regular intervals, but urban containment inherently affects land prices both within and outside the limit. There are some examples of successful urban containment and relative price stability over time, notably Portland, Oregon, but successful management requires planners to be pro-active in monitoring and adjusting land supply. Currently Green Belt cover some 13 percent of the total land area of England (with urban land covers around 10 percent). The Planning Minister has recently stated that increasing this to just 12 percent would meet all identified future requirements and that this could be done while preserving Green Belt. JRF conclude that *'The green belt has successfully prevented urban sprawl – but at a price. Evidence from other countries suggests that it should be operated more flexibly, with boundaries revisited regularly.'*

¹³⁰ The Chartered Institute of Housing, National Housing Federation & Shelter (2012) The Housing Report: Edition 2 [online] available at: http://england.shelter.org.uk/_data/assets/pdf_file/0008/435653/Housing_Report_2_-_May_2012.pdf (accessed 11/2012)

¹³¹ Joseph Rowntree Foundation (2013) International Review of Land Supply and Planning Systems [online] available at: <http://www.jrf.org.uk/sites/files/jrf/land-supply-planning-full.pdf> (accessed 04/2013)

Box 9.3 Solutions to 'the housing crisis' suggested by Policy Exchange and the TCPA

In recent position statements both Policy Exchange¹³² (a leading 'think tank') and the Town and Country Planning Association (TCPA)¹³³ highlight the extent of the housing challenge and identify that a key barrier to addressing the challenge is the poor perception of new development. Policy Exchange state that *'A lot of people object to new development because they assume that the outcome will be buildings that are at best characterless, cheap in everything except price.'* The following solutions are suggested by the two organisations are quite different:

- Policy exchange advocate the need for **'self-build'** to make a much more significant contribution. Self-build is where development involves a discrete project for a specific owner, who will hence input into the design and construction. Currently, in the UK 10% of new homes (less in England) is self-build, with the vast majority of development being undertaken by large developers (who, Policy Exchange suggest, can act as land speculators as much as builders to the detriment of building rates). Councils can support self-build by using land auctions to enable self-builders to procure plot sized areas of land.
- TCPA suggest that **large-scale new communities** (phased over time) should be prominent in *'the portfolio of solutions that will be essential in tackling today's acute housing shortage – a shortage which cannot be addressed exclusively on a plot-by-plot basis.'* TCPA believe that: *'Well planned new communities provide an opportunity to create high-quality sustainable places, allowing for the highest sustainability standards, economies of scale, and better use of infrastructure. A holistic approach to creating new communities provides an opportunity to consider how homes and neighbourhoods can be made attractive places in which to live and work, in environments which are socially inclusive and resilient to climate change.'* In particular, TCPA advocate the idea of developing **Garden Cities and Suburbs** according to a series of agreed principles. Benefits of this approach include –
 - The population of a new Garden City can provide the critical mass to support the necessary facilities for low-carbon lifestyles, such as rapid public transport, low-carbon energy systems, jobs located within walking distance of homes, and a range of cultural and leisure services, including a comprehensive green infrastructure network providing quick access to the wider countryside.
 - Any negative impacts on the environment can be dealt with in a holistic way, with avoidance, mitigation and compensation considered from the outset.

Box 9.4 Regional and sub-regional level housing need

The East of England Plan (now revoked) established that the East of England region faces strong market demand widespread affordability problems, and a growing and ageing population. In this context, the plan sought to initiate increased delivery, focused on previously developed land but supplemented by some green field development. The plan recognised that the regional annual average housing target of 26,830 net additional dwellings a year from 2006 represents a good starting point to address the shortfall in housing provision, but that it should be treated as a minima prior to a review initiating a further step change. Policy H1 of the plan related to regional housing supply and required that provision be made in Brentwood for 3,500 dwellings between 2001 and 2021, equating to a minimum requirement of 175 dwellings per annum on average. The **Draft RSS Revision to 2031** (2010) reduced this to 170 dwellings per annum.

Following the abolition of regional targets for housing growth, the **National Planning Policy Framework** (NPPF) requires that Local Plans are prepared 'on the basis of objectively assessed development needs' which 'meet household and population projections, taking account of migration and demographic change'.

The **Heart of Essex Housing Growth Scenarios** study is to investigate housing growth scenarios for the Heart of Essex sub region which comprises Brentwood, Chelmsford and Maldon, over the period up to 2031. For Brentwood, the study found that some population and workforce growth could be achieved through delivering homes at the level of the East of England Plan provision for 170 dwellings per annum. This growth could be achieved without the need for Green Belt release if brownfield windfall rates remain consistent with previous levels, or new opportunities arise within settlements. However, should those sources produce a shortfall then Green Belt release may be necessary. The study tests three scenarios:

- Delivery of 107 dwellings per annum would keep the population stable at 2010 levels, but housing at a lower rate than this would lead to a population decrease, which could have implications for the provision

¹³² Policy Exchange (2013) A right to build: Local homes for local people [online] available at:

<http://www.policyexchange.org.uk/images/publications/a%20right%20to%20build.pdf> (accessed 04/2013)

¹³³ TCPA (2013) Creating garden cities and suburbs today a guide for councils [online] available at:

http://www.tcpa.org.uk/data/files/Creating_Garden_Cities_and_Suburbs_Today_-_a_guide_for_councils.pdf (accessed 04/2013)

of local services and the Borough's general vitality and vibrancy.

- Delivery of 125 dwellings per annum would maintain the workforce at 2010 levels, a small rise above keeping the population stable and a slight improvement in economic sustainability.
- Meeting ONS/SNPP projection which (a proxy for housing demand) would require the delivery of 402 homes per annum.

Given the limits of the Green Belt, the study concludes that Brentwood cannot meet market demand for new homes. A constrained housing target may have positive and negative implications. There will be less scope to secure affordable homes and contributions towards infrastructure as a result of constrained growth. However, lower housing growth will place less pressure on existing infrastructure, plus a lower requirement for new infrastructure. The effect of housing constraints on the Borough's age profile is considered to be less an issue when compared to other areas. It is however notable that if only 125 households are provided per annum, the proportion of people over 60/65 years old will still increase to nearly 30% of the population.

Established Brentwood specific sustainability objectives

Table 9.1 identifies those sustainability objectives established, in 2007, for the purposes of the Brentwood Core Strategy SA, that are relevant to this topic chapter (given the difference in scope between the Core Strategy and the Local Plan).

Table 9.1: Relevant objectives and selected sub-objectives from the Brentwood Core Strategy SA Scoping Report¹³⁴ (2007)

CORE STRATEGY SA OBJECTIVE	SELECTED SUB-OBJECTIVES
Ensure affordable high quality housing is available to all	<ul style="list-style-type: none"> • Maximise number of affordable housing completions in both urban and rural areas • Reduce homelessness • Increase number of dwellings meeting the Decent Homes Standard • Provide affordable housing for key workers • Achieve minimum housing requirements
Ensure the needs of Gypsy & Traveller groups are met	<ul style="list-style-type: none"> • Ensure flexibility to provide fixed accommodation for people wishing to settle • Provide sites to meet the needs of Gypsies and Travellers for different types, tenures and affordability

9.2 What's the sustainability 'baseline'?

Current baseline Nationally¹³⁵

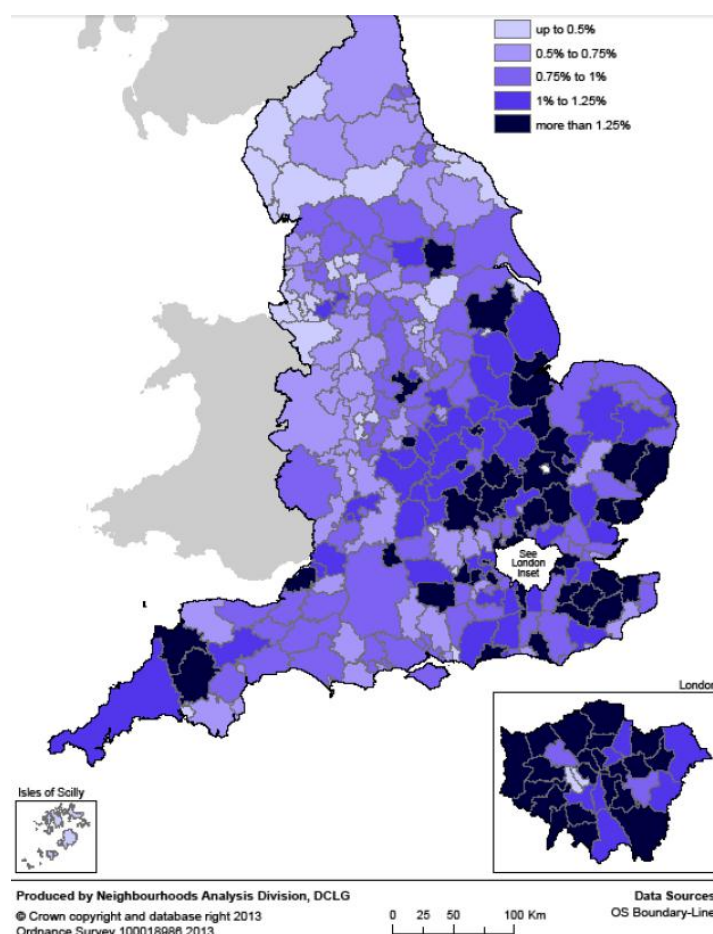
- The number of households in England is projected to grow to 24.3 million in 2021, an increase of 2.2 million (10 percent) over 2011, or 221,000 households per year.
- Changes in population account for about 98 per cent of the household formation between 2011 and 2021. Specifically, it is projected that -
 - Average household size will decrease from 2.36 to 2.33 in ten years.
 - 'Couple households' will grow by around 87,000 per year on average, equating to forty percent of the total increase in households between 2011 and 2021.

¹³⁴ Brentwood Borough Council Local Development Framework: Core Strategy & DC Policies DPD and Gypsy & Traveller Scoping Report [online] available at: http://www.brentwood.gov.uk/pdf/pdf_1346.pdf (accessed 04/2013)

¹³⁵ DCLG (2013) Household Interim Projections, 2011 to 2021, England [online] accessed: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/182412/Stats_Release_2011FINALDRAFT.pdf (accessed 04/2013)

- Two thirds (67 per cent) of the increase in households between 2011 and 2021 is projected for households without any dependent children.
- The increase in the number of households headed by the younger age groups is projected to be relatively lower than the increase in households headed by older people.
- In ten years, the number of households is projected to grow between 5 and 10 per cent in nearly half (46 per cent) of all local authority districts in England – see Figure 9.1. In Brentwood, the number of households is projected to grow by between 5 and 7.5% over this period.

Figure 9.1 Annual average percentage change in number of households 2011-2021



- 9.2.1 The 2011-based projections show a lower growth in households compared with the 2008-based projections, equating to 24,900 fewer households per year between 2011 and 2021 in England.
- 9.2.2 The Town and Country Planning Association (TCPA) also highlight the following as being key drivers of 'a need to build more houses':¹³⁶
- Housebuilding rates are at low levels not seen since the 1920s. In the 12 months to September 2012 the total number of new homes in England was 117,190, about half the amount needed to keep up with household formation.

¹³⁶ TCPA (2013) Creating garden cities and suburbs today a guide for councils [online] available at: http://www.tcpa.org.uk/data/files/Creating_Garden_Cities_and_Suburbs_Today_-_a_guide_for_councils.pdf (accessed 04/2013)

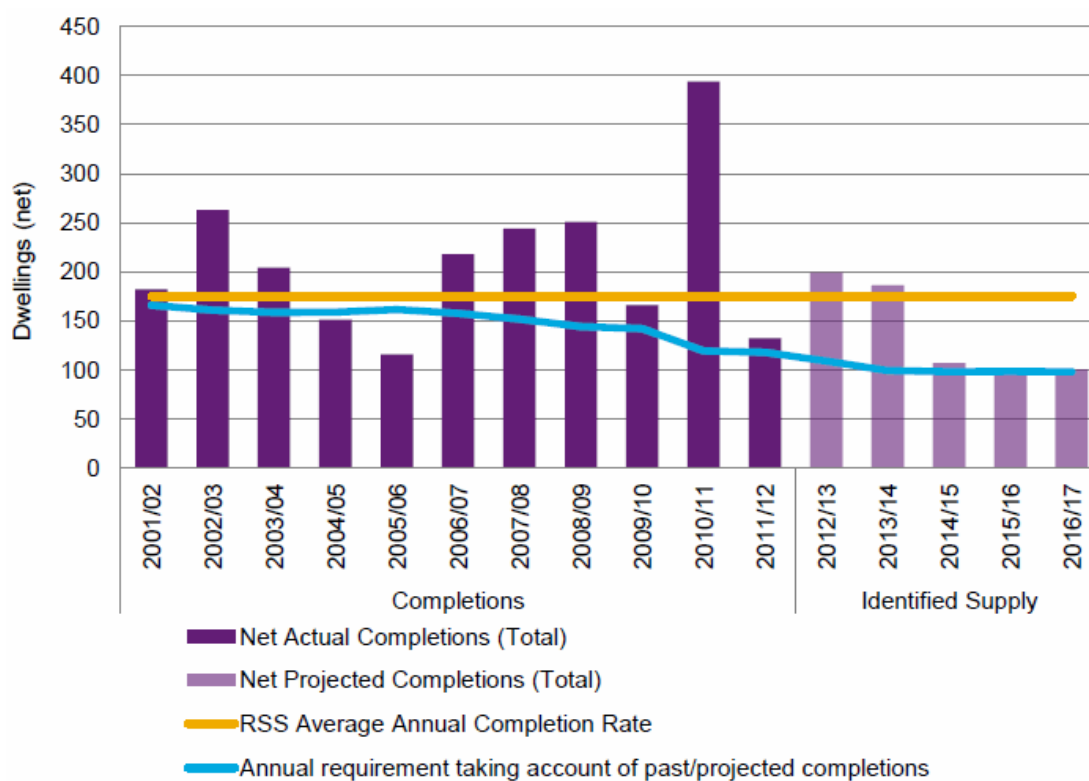
- Over the same period the number of affordable homes built was 50,345 (total affordable housing is the sum of housing built for affordable rent, social rent, intermediate rent, and affordable home ownership). The need for affordable housing is growing, with over 1.7 million households currently waiting for social housing.
- The population is ageing: by 2033 over a third of households will be headed by people aged 65 or over.
- It has been estimated that poor housing costs the NHS at least £600 million per year.
- Over half a million households are now living in overcrowded conditions in England.
- We need to 'green' our homes, which are currently responsible for just over a quarter of the UK's carbon dioxide emissions.
- Construction is an economic driver, with government research suggesting that every 100,000 new houses built could boost GDP by 1%.

Current baseline in Brentwood

- 9.2.3 Housing affordability is a major issue in Brentwood. Whilst local income levels are higher than the UK average, house prices too are significantly higher than the average prices for England. As a result, for many households, property costs and rental levels are unaffordable.
- 9.2.4 Housing completions in Brentwood for the period from 2001 to 2011 exceeded the rate that was required by the Regional Spatial Strategy (now revoked). By April 2012 a total of 2,321 homes were completed in the Borough compared to 1,925 RSS target (2001-2012). In 2011/12 housing completions totalled 132 (net). Figure 9.2 shows a levelling off in projected housing completions 2012-2017; however, it is considered likely that more housing than currently projected will come forward as a result of sites being identified and windfall housing delivery.¹³⁷

¹³⁷ Brentwood Borough Council Annual Monitoring Reports (2004-2012) [online] available at <http://www.brentwood.gov.uk/index.php?cid=880> (accessed 04/2013)

Figure 9.2: Actual and projected housing delivery in Brentwood (2001-2017) against the RSS (now revoked) target¹³⁸



- 9.2.5 In terms of the type of housing that is required, the 2008 London Commuter Belt (East)/M11 Sub-Region Strategic Housing Market Assessment (SHMA) found that of a total housing requirement of 3,200, intermediate affordable housing should make up the greatest proportion, numbering 2,100 (65.5%); social rented housing should form the next largest segment of the tenure mix, at 1,000 (29.6%); and additional market housing should number just 200 (4.9%).¹³⁹
- 9.2.6 The supply of affordable housing in the Borough is variable from one year to another. For example, in 2011/12, a total of 51 affordable homes were completed, representing 34.5% of all completions; meanwhile, in 2010/11 just four were completed, representing 1%. Between 2001/02 and 2011/12 affordable housing completions made up an average of 24.2% of all completions.¹⁴⁰

¹³⁸ ibid

¹³⁹ Opinion Research Services, Savills (2010) London Commuter Belt (East)/M11 Sub-Region Strategic Housing Market Assessment 2008: Report of Study Findings - January 2010 [online] available at: <http://www.brentwood.gov.uk/pdf/13102010102900u.pdf> (accessed 04/2013)

¹⁴⁰ Brentwood Borough Council (2011) Annual Monitoring Report [online] available at <http://www.brentwood.gov.uk/pdf/18012012112208u.pdf> (accessed 11/12)

- 9.2.7 Of the existing housing stock in Brentwood, one and two bedroom properties make up a relatively small proportion of the total. 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. In light of this issue, there has been a continuing downward trend in the number and proportion of 3+ bedroom dwelling completions since 2001. In 2010/11, of the 394 housing completions that year, 327 dwellings were one or two bedroom dwellings representing 83% of the total.¹⁴¹ It should also be noted that current welfare reforms may drive increased demand for smaller properties.¹⁴²

Future baseline assuming 'business as usual'

- 9.2.8 In the absence of the Plan, the delivery of the housing that is required to meet the needs of those in the Borough may be less likely to occur. In the absence of Plan guidance, the quantum of housing delivered may be above that required, due to reduced restrictions on the location and size of new developments, although it could also be lower in the absence of Plan support. Whatever the quantum of delivery under such a scenario, the suitability (e.g. size and design) and affordability of this housing may not be appropriate to local requirements. In addition, such unchecked development may have wider implications, for instance due to pressure on services.

9.3 What are the key issues that should be a focus of SA?

- Housing affordability is a significant issue for many in Brentwood 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.

¹⁴¹ *Ibid.*

¹⁴² Brentwood Borough Council (2013) Personal communication

10 LANDSCAPE

10.1 What's the sustainability 'context'?

The National Planning Policy Framework (NPPF)

10.1.1 Key messages include -

- Protect and enhance valued landscapes, giving particular weight to those identified as being of national importance.
- Consider the effects of climate change in the long term, including in terms of landscape. Adopt 'proactive strategies' to adaptation and manage risks through adaptation measures including well planned green infrastructure.

Supplementing the NPPF

10.1.2 Further context is provided by a review of the European Landscape Convention (Box 10.1); a recent position statement on green infrastructure prepared by the Landscape Institute (Box 10.2); and a review of the local Landscape Character Assessment (Box 10.3).

Box 10.1: The European Landscape Convention (2000)

The **European Landscape Convention** (ELC) came into force in the UK in March 2007. The ELC 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'. Among other things, the ELC commits all signatories to establishing and implementing policies aimed at landscape protection, management and planning / integrating landscape into town planning, cultural, environmental, agricultural, social and economic policies.

Box 10.2: Landscape Institute position statement on green infrastructure

In '**Green Infrastructure: An integrated approach to land use**' (2013)¹⁴³ the Landscape Institute (LI) makes a distinction between:

- Elements of the landscape that can represent distinct green infrastructure (GI) 'assets', e.g.
 - Urban area, Business Parks, Suburban Housing, Sustainable Drainage Systems, Community Centres (e.g. with sports pitches), 'main green spines' (e.g. waterways and major pedestrian/cycle routes, allotments, small-holdings and orchards, and country parks
- GI 'functions', e.g.
 - Water management, dealing with waste, climate change adaptation and mitigation, business benefits, local distinctiveness, recreation and health, education, community cohesion, food production, and biodiversity,

Six recommendations are made, two of which are aimed at local authorities:

- **Turn strategic GI thinking into reality** - Ensure that GI is a core requirement in Local Plans, Infrastructure Development Plans and development briefs. Proper consideration should also be given to the potential for multifunctional GI to perform some of the roles that 'grey' infrastructure is used for, particularly water management and waste. Why? Not only does GI tend to be cheaper, but it also provides infrastructure that is resilient to an increasingly unpredictable climate.
- **Promote collaboration on GI across boundaries** - By its nature, GI often crosses administrative boundaries, so it should be addressed through the Duty to Cooperate between local authorities. It should also be part of the remit of Local Enterprise Partnerships.

It is also notable that the position statement references **Trees in the Townscape: A Guide for Decision Makers**. This highlights that trees can contribute to storm-water, management, urban cooling and microclimate control, air-quality improvement, visual amenity and carbon sequestration. Where space is at a premium and the built environment is dominant, trees provide significant natural assets that can be retrofitted into streets and other available spaces with relatively little disturbance to surrounding activities.

¹⁴³ Landscape Institute (2013). Green Infrastructure: An integrated approach to land use [online] available at <http://www.landscapeinstitute.org/PDF/Contribute/2013GreenInfrastructureLIPositionStatement.pdf> (accessed 04/13)

Box 10.3: Braintree, Brentwood, Chelmsford, Maldon and Uttlesford Landscape Character Assessments (2006)

Mirroring central government's objectives to protect and enhance landscape character as part of delivering sustainable development through planning, the **Braintree, Brentwood, Chelmsford, Maldon and Uttlesford Landscape Character Assessment**¹⁴⁴ (2006) offers a technical evidence base to inform policies relating to the protection and enhancement of landscape character, whilst also acting as a baseline and framework for monitoring change to landscapes.

The study states that *'the overall aim of landscape planning, design and management should be to achieve 'sustainable landscapes' that are as visually, biologically and culturally rich as possible to meet all of society's social, economic and environmental needs. A better understanding of landscapes provided by Landscape Character Assessments – their diversity, character and distinctiveness, evolution, sensitivity to change and their management needs – is essential to help to work towards this goal'*.

Brentwood specific sustainability objectives

10.1.3 Table 10.1 identifies those sustainability objectives established for the purposes of the 2007 Brentwood Core Strategy SA that are relevant to this topic chapter (given the difference in scope between the Core Strategy and the Local Plan).

*Table 10.1: Relevant objectives and selected sub-objectives from the Brentwood Core Strategy SA Scoping Report*¹⁴⁵ (2007)

CORE STRATEGY SA OBJECTIVE	SELECTED SUB-OBJECTIVES
Protect and enhance the natural environment	<ul style="list-style-type: none"> Protect & enhance existing landscape features such as woodlands, trees, hedgerows and ponds Reduce sources of pollution including those from light Protect and enhance tranquility
Protect and enhance the rural environment ensuring the countryside and multifunctional open spaces are accessible to all	<ul style="list-style-type: none"> Minimise impacts of roads and traffic on the rural environment Promote farm diversification appropriate to the environment and ecological settings
Protect and enhance the built and historic environment and landscapes in the Borough	<ul style="list-style-type: none"> Protect and enhance the historic landscape character Resist visual intrusion from development and protect open views Minimise noise pollution Minimise the impacts of development on sensitive landscapes Conserve and enhance local diversity and distinctiveness

¹⁴⁴ Sometimes referred to as 'Mid Essex Landscape Character Assessment (2006)

¹⁴⁵ Brentwood Borough Council Local Development Framework: Core Strategy & DC Policies DPD and Gypsy & Traveller Scoping Report [online] available at: http://www.brentwood.gov.uk/pdf/pdf_1346.pdf (accessed 04/2013)

10.2 What's the sustainability 'baseline'?

Current baseline

- 10.2.1 The majority of the Borough of Brentwood 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.¹⁴⁶ The Borough of Brentwood has about 3,000 acres (about 1,215 hectares) of woodland and three country parks.¹⁴⁷ Three distinct landscape types have been identified within Brentwood, 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).¹⁴⁸

Future baseline assuming 'business as usual'

- 10.2.2 Without the implementation of the Plan it appears likely that the landscape of the Borough will come under greater pressure from inappropriate development resulting from a higher population and associated economic development, with negative effects on landscape character. Without a coordinated approach, development is more likely to occur in landscape areas which are regarded as having a high sensitivity to change and without suitable mitigation measures.

10.3 What are the key issues that should be a focus of SA?

- 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.

¹⁴⁶ 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 11/2012)

¹⁴⁷ Brentwood Borough Council – About Brentwood [online] available at: <http://www.brentwood.gov.uk/index.php?cid=43> (accessed 11/2012)

¹⁴⁸ 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 11/2012)

11 SOIL & CONTAMINATION

11.1 What's the sustainability 'context'?

The National Planning Policy Framework (NPPF)

11.1.1 Key messages include -

- Protect and enhance soils. The value of best and most versatile agricultural land should also be taken into account.
- Prevent new or existing development from being 'adversely affected' by the presence of 'unacceptable levels' of soil pollution or land instability and be willing to remediate and mitigate 'despoiled, degraded, derelict, contaminated and unstable land, where appropriate'.
- 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'. Whilst there is no longer a national requirement to build at a minimum density, the NPPF requires local planning authorities to 'set out their own approach to housing density to reflect local circumstances'.

Supplementing the NPPF

11.1.2 Further sustainability context is provided by a review of further Government guidance.

Box 11.1: Further Government policy

In **Safeguarding our Soils: A strategy for England**¹⁴⁹, a vision is set out for the future of soils in the Country. An element of this vision is the condition of soils in urban areas, which are to be 'sufficiently valued for the ecosystem services they provide and given appropriate weight in the planning system'. Good quality soils in urban areas are recognised as being 'vital in supporting ecosystems, facilitating drainage and providing urban green spaces for communities'. That planning decisions take sufficient account of soil quality is a concern of the report, in particular in cases where 'significant areas of the best and most versatile agricultural land are involved'. Preventing the pollution of soils and addressing the historic legacy of contaminated land is another element of the reports vision.

In terms of future trends, the report notes that pressures on soils and competition for land is likely to increase in future as a result of population growth. As a result, the effects of these trends and the 'changing demands on our soils' needs to be better understood and it must be ensured that 'appropriate consideration is given to soils in the planning process'.

Established Brentwood specific sustainability objectives

11.1.3 Table 11.1 identifies those sustainability objectives established, in 2007, for the purposes of the Brentwood Core Strategy SA, that are relevant to this topic chapter (given the difference in scope between the Core Strategy and the Local Plan).

Table 11.1: Relevant objectives and selected sub-objectives from the Brentwood Core Strategy SA Scoping Report¹⁵⁰ (2007)

CORE STRATEGY SA OBJECTIVE	SELECTED SUB-OBJECTIVES
Deliver sustainable use of land	<ul style="list-style-type: none"> • Ensure a minimum of 60% of new development is on previously developed land • Remediate contaminated land, taking potential biodiversity into consideration • Reduce vacant buildings and derelict land

¹⁴⁹ Defra (2009) Safeguarding our Soils: A strategy for England [online] available at:

<http://archive.defra.gov.uk/environment/quality/land/soil/documents/soil-strategy.pdf> (accessed 11/2012)

¹⁵⁰ Brentwood Borough Council Local Development Framework: Core Strategy & DC Policies DPD and Gypsy & Traveller Scoping Report [online] available at: http://www.brentwood.gov.uk/pdf/pdf_1346.pdf (accessed 04/2013)

CORE STRATEGY SA OBJECTIVE	SELECTED SUB-OBJECTIVES
Protect and enhance the natural environment	<ul style="list-style-type: none"> Protect and enhance soil resources Minimise risk of contamination Reduce sources of pollution including those from chemicals

11.2 What's the sustainability 'baseline'?

Current baseline

- 11.2.1 The entirety of the Borough is located within the London Metropolitan Green Belt. Around 80% of the Borough is classified as rural.¹⁵¹ Since 2001, Brentwood has achieved a consistently high proportion of residential developments on previously developed land (PDL)¹⁵² averaging 99% over the 11 years to 2012.¹⁵³ Over the course of 2010/11 99.3% of the 416 dwellings completed were located on PDL.¹⁵⁴ This fell to 88.5% during the 2011/12 period, mainly due to the change in definition of PDL to no longer include residential garden land.
- 11.2.2 The Borough has continuously maintained high levels of density for completed new homes. Only once during 2004-11 did the average density fall below 50 dwelling per hectare (45.1 in 2009/10), with the highest density being 126.5 in 2008/09. In 2010/11, all of the 358 dwellings¹⁵⁵ completed were built at a density of over 50 per hectare, with an average density per hectare of 76.5.¹⁵⁶
- 11.2.3 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-east of the Borough.¹⁵⁷
- 11.2.4 There are currently no entries on the Council's Contaminated Land Register.¹⁵⁸

Future baseline assuming 'business as usual'

- 11.2.5 In the absence of the Plan, it may be the case that development more often occurs on Greenfield land in the future. This is especially the case given the far greater availability of such land in the Borough and the likely growth in the local population and economy which will make such development lucrative. Such a move towards unconstrained development may also result in a decline in development densities. Development on Greenfield land will also potentially result in the loss of best, most versatile agricultural land. A final consideration relates to the Climate change projections for Essex, which suggest a decrease in soil moisture that could adversely affect agriculture, the natural environment and landscape.¹⁵⁹

11.3 What are the key issues that should be a focus of SA?

- There is a need to make best use of brownfield land and protect the Borough's resource of highly productive agricultural land.

¹⁵¹ 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 11/2012)

¹⁵² 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.

¹⁵³ Brentwood Borough Council -Annual Monitoring Reports (2004-2012) [online] available at <http://www.brentwood.gov.uk/index.php?cid=880> (accessed 04/2013)

¹⁵⁴ Brentwood Borough Council (2012) Annual Monitoring Report 2010/11 [online] available at: <http://www.brentwood.gov.uk/index.php?cid=880> (accessed 11/2012)

¹⁵⁵ Information is for sites of 10 or more dwellings (gross)

¹⁵⁶ Brentwood Borough Council (2012) Annual Monitoring Report 2010/11 [online] available at: <http://www.brentwood.gov.uk/index.php?cid=880> (accessed 11/2012)

¹⁵⁷ 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 11/2012)

¹⁵⁸ Brentwood Borough Council – Contaminated Land [online] available at: <http://www.brentwood.gov.uk/index.php?cid=718> (04/13)

¹⁵⁹ 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 12/2012)

12 WASTE

12.1 What's the sustainability 'context'?

Internationally established objectives

- 12.1.1 The EU's Thematic Strategy on the Prevention and Recycling of Waste is long-term strategy which aims to ensure that Europe becomes a recycling society that seeks to avoid waste and which uses waste as a resource.¹⁶⁰ The strategy proposes that approaches to waste management are modernised and that they promote more and better recycling.

The National Planning Policy Framework (NPPF)

- 12.1.2 Key messages include -

- With regards to waste, the NPPF does not contain any specific waste policies as waste planning policy will be published as part of the National Waste Management Plan. Nonetheless, local authorities who are preparing waste related plans should have regard to the NPPF so far as it is relevant. Until then, Planning Policy Statement 10: Planning for Sustainable Waste Management¹⁶¹ remains in force. The overall objective of PPS10 is to reduce the production of waste and use it as a resource where possible.

Supplementing the NPPF

- 12.1.3 Further sustainability context is provided by a summary of a recent review of waste policies which explores the case for action and the steps required to move towards more sustainable waste management system (Box 12.1). This is supplemented by a summary of statistics relating to waste management across England and in Brentwood (Box 12.2).

Box 12.1: Recent government review of waste policies

This **Government Review of Waste Policy in England**¹⁶² recognises that environmental benefits and economic growth can be the result of a more sustainable approach to the use of materials. As such, it sets out a vision to move beyond our current 'throwaway society' to a 'zero waste economy'. The report recognises that planning will play a critical role in delivering this ambition. In terms of planning for waste the report notes that local authorities should consider the infrastructure needs of their community from the earliest stages of developing their local policies and plans. It also states that local communities should benefit from the hosting of waste facilities.

Box 12.2: Statistical release relating to waste management across England and in Brentwood

The **Local Authority Waste Management Statistics for England** (2011/12) produced by Defra presents estimates of the waste collected and managed by local authorities over the last financial year (2011/2012).

The headline results for England are as follows:

- 43% of household waste recycled (the highest % on record but the lowest annual increase in ten years)
- 22.9 million tonnes of household waste generated equal to 431kg of waste per person (continuing the pattern of annual reductions seen since 2007/2008)
- 10.7 million tonnes of waste collected recycled, composted or reused by local authorities (for the first time on record this figure was greater than the amount landfilled)

The comparative headline results for Brentwood are:

- 47.3% of household waste reused, recycled or composted
- 374kg collected household waste per person

¹⁶⁰ European Commission (2011) Thematic Strategy on the Prevention and Recycling of Waste [online] available at: <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2011:0013:FIN:EN:PDF> (accessed 11/2012)

¹⁶¹ Planning Policy Statement 10: Planning for Sustainable Waste (2011) [online] available at: <http://www.communities.gov.uk/documents/planningandbuilding/pdf/1876202.pdf> (accessed 09/2012)

¹⁶² Defra (2011) Government Review of Waste Policy in England [online] available at: <http://www.defra.gov.uk/publications/files/pb13540-waste-policy-review110614.pdf> (accessed 08/2012)

Established Brentwood specific sustainability objectives

- 12.1.4 Table 12.1 identifies those sustainability objectives established, in 2007, for the purposes of the Brentwood Core Strategy SA, that are relevant to this topic chapter (given the difference in scope between the Core Strategy and the Local Plan).

Table 12.1: Relevant objectives and selected sub-objectives from the Brentwood Core Strategy SA Scoping Report¹⁶³ (2007)

CORE STRATEGY SA OBJECTIVE	SELECTED SUB-OBJECTIVES
Reduce waste	<ul style="list-style-type: none"> • Reduce waste produced • Maximise reuse of waste • Maximise recycling rates • Maximise composting rates • Minimise waste sent to landfill • Maximise opportunities for local management of waste in order to minimise export of waste to areas outside Brentwood
Use natural resources (including water, fossil fuels, land and minerals) efficiently	<ul style="list-style-type: none"> • Minimise demand for raw materials • Use materials from sustainable sources

12.2 What's the sustainability 'baseline'?

Current baseline

- 12.2.1 The amount of waste generated in the Borough is significantly lower than the County average. In terms of the recycling of waste materials, Brentwood currently performs above average within Essex. The Borough reuses, recycles, or composts 56% of the household waste that is produced. This is in comparison to the Essex County average of 52%.¹⁶⁴

Future baseline assuming 'business as usual'

- 12.2.2 Whilst waste related planning and results will be strongly influenced by County level planning, the absence of a Borough level Plan may reduce the extent of improvements in waste reuse, recovery and recycling. For instance, without guidance on the sustainable design features to be incorporated into new developments it is less likely that recycling features will be incorporated that are accessible and easy to use.

12.3 What are the key issues that should be a focus of SA?

- A primary concern for the Local Plan 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 as part of a life cycle approach to resource use.

¹⁶³ Brentwood Borough Council Local Development Framework: Core Strategy & DC Policies DPD and Gypsy & Traveller Scoping Report [online] available at: http://www.brentwood.gov.uk/pdf/pdf_1346.pdf (accessed 04/2013)

¹⁶⁴ Essex County Council (2012) Essex Household Recycling and Composting Performance [online] available at: http://www.essex.gov.uk/Environment%20Planning/Recycling-Waste/Waste-Strategy/Documents/Recycling_%20Composting_Performance_April_2011_March_2012.pdf (accessed 04/2013)

13 WATER QUALITY & WATER RESOURCES

13.1 What's the sustainability 'context'?

Internationally established objectives

- 13.1.1 The EU's 'Blueprint to Safeguard Europe's Water Resources'¹⁶⁵ highlights the need for Member States to reduce pressure on water resources, for instance by using green infrastructure such as wetlands, floodplains and buffer strips along water courses. This would also reduce the EU's vulnerability to floods and droughts. It also emphasises the role water efficiency can play in reducing scarcity and water stress.

The National Planning Policy Framework (NPPF)

- 13.1.2 Key messages include -

- Produce strategic policies to deliver the provision of a variety of infrastructure, including that necessary for water supply.
- Take account of the effects of climate change in the long term, taking into account a range of factors including water supply. Adopt 'proactive strategies' to adaptation and manage risks through adaptation measures including well planned green infrastructure.

Supplementing the NPPF

- 13.1.3 Further sustainability context is provided by a review of: Government's White Paper on Water (Box 13.1); the Water Framework Directive - a key legislative driver of water management action (Box 13.2); new approaches to flood risk management brought about through the 2010 Flood and Water Management Act and a report on the benefits of using Sustainable Drainage Systems (SUDs) (Box 13.3). This is followed by a summary of a local level water cycle study undertaken for Brentwood (Box 13.4).

Box 13.1: Further Government policy

The **Water White Paper**¹⁶⁶ sets out the Government's vision for a more resilient water sector, where water is valued as the precious resource it is. It states the measures That will be taken to tackle issues such as poorly performing ecosystems, and the combined impacts of climate change and population growth on stressed water resources.

Commitments are made in the White Paper to 'encourage and incentivise water efficiency measures' at the demand side. Through these measures and the demand management measures set out in Water Resource Management Plan's for water companies, the Government aspires to reduce average demand to 130 litres per head, per day by 2030.

The avoidance of pollution is also a consideration in the White Paper, leading to a Government consultation on a national strategy on urban diffuse pollution in 2012. The consultation report¹⁶⁷ notes that pollutants affecting failing waterbodies can be broken down into a number of categories including:

- **Point Source Pollution:** Permitted discharges from factories and wastewater treatment are currently responsible for about 36% of pollution related to failing water bodies.
- **Diffuse pollution:** Unplanned pollution from urban and rural activity, arising from sources such as industry, commerce, agriculture, and civil functions is responsible for 49% of the pollution related to failing water bodies. Agricultural diffuse pollution is responsible for 33% of failures; non-agricultural for 14%. In highly urbanised areas the contribution of urban diffuse pollution is much higher.

¹⁶⁵ European Commission (2012) A Blueprint to Safeguard Europe's Water Resources [online] available at http://ec.europa.eu/environment/water/blueprint/pdf/COM-2012-673final_EN_ACT-cov.pdf (accessed 11/2012)

¹⁶⁶ Defra (2011) Water for life (The Water White Paper) [online] available at <http://www.official-documents.gov.uk/document/cm82/8230/8230.pdf> (accessed 11/2012)

¹⁶⁷ Defra (2012) Tackling water pollution from the urban environment: Consultation on a strategy to address diffuse water pollution from the built environment [online] available at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/82602/consult-udwp-doc-20121120.pdf (accessed 05/2013)

Box 13.2: The Water Framework Directive

The Directive drives a catchment-based approach to water management. In England and Wales there are 100 water catchments and it is Defra's intention is to establish a 'framework for integrated catchment management' across England by the end of 2013. The Environment Agency is currently seeking to establish 'Significant Water Management Issues' within catchments with a view to presenting second River Basin Management Plans to ministers in 2015. The Plans will seek to deliver the objectives of the WFD namely:

- Enhance the status and prevent the further deterioration of aquatic ecosystems and associated wetlands which depend on aquatic ecosystems;
- Promote the sustainable use of water;
- Reduce the pollution of water, especially by 'priority' and 'priority hazardous' substances; and
- Ensure the progressive reduction of groundwater pollution.

The Environment Agency believes that to achieve good status in all water bodies by 2027 (the target of the Water Framework Directive) will not be possible using only current technologies. In fact, achieving 75 per cent good status will require marked changes in land use and water infrastructure.

Box 13.3: Further Government guidance on flood risk

The **Flood and Water Management Act**¹⁶⁸ 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)
- 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
- Planning to roll back development in coastal areas to avoid damage from flooding or coastal erosion
- Sustainable drainage systems (SuDS)¹⁶⁹

Further guidance is provided in the document **Planning for SuDS**.¹⁷⁰ This report calls for greater recognition of the multiple benefits that water management can present. It suggests that successful SuDS are capable of 'contributing to local quality of life and green infrastructure'.

GP3: Groundwater Protection: Policy and Practice¹⁷¹ (2012) implements the requirements of the WFD and Environmental Permitting Regs, protecting and enhancing water quality in both surface water and ground water and managing the sustainable supply of water as a resource. Principles are set out to ensure wise resource use and bring benefits to land, wildlife, flood risk management and communities. The Environment Agency's core groundwater policy is to protect and manage groundwater resources for present and future generations in ways that are appropriate for identified risks such as pollution and climate change. To achieve this the Environment Agency seek to:

- Meet the needs of the environment and people;
- Manage surface water and groundwater as an integrated whole;
- Use robust measures to prevent the pollution of groundwater; and
- Achieve the environmental objectives of the Water Framework Directive.

Box 13.4: Local level water study

The **Brentwood Scoping and Outline Water Cycle Study** (2011) forms part of the evidence base for the Local Plan. It appraises the ability of water bodies and water related infrastructure in Brentwood Borough to accommodate future development and growth. Based on this review, the most suitable locations in the

¹⁶⁸ Flood & Water Management Act (2010) [online] available at: <http://www.legislation.gov.uk/ukpga/2010/29/contents> (accessed 11/12)

¹⁶⁹ N.B. The government proposes that the provisions of Schedule 3 to the Flood and Water Management Act 2010 will come into force on the 1st of October 2012 and will make it mandatory for any development in England or Wales to incorporate SuDS.

¹⁷⁰ CIRIA (2010) Planning for SuDS – making it happen [online] available at: <http://www.ciria.org/service/knowledgebase/AM/ContentManagerNet/ContentDisplay.aspx?Section=knowledgebase&NoTemplate=1&ContentID=18465> (accessed 11/12)

¹⁷¹ Environment Agency (2012) GP3: Groundwater Protection: Policy and Practice [online] available at: <http://www.environment-agency.gov.uk/research/library/publications/144346.aspx> [accessed 15/03/2013]

Borough are put forward, along with details of where constraints exist.

Four different spatial options are addressed in terms of housing distribution. These are concentration around the Brentwood urban area, concentration along transport corridors, a semi dispersed growth option and a dispersed growth option. Of these, centralised growth is found to be the preferred option.

Further to this finding, a number of policy recommendations are made with respect to new developments in the Borough. These recommendations are to ensure water efficiency measures are adopted, including Sustainable Urban Drainage Systems (SUDS); to ensure that surface drainage is disconnected from the foul network; and to ensure that water sustainability assessments are submitted as part of planning applications.

Established Brentwood specific sustainability objectives

- 13.1.4 Table 13.1 identifies those sustainability appraisal objectives established, in 2007, for the purposes of the Brentwood Core Strategy SA, that are relevant to this topic chapter given the difference in scope between the Core Strategy and the Local Plan.

Table 13.1: Relevant objectives and selected sub-objectives from the Brentwood Core Strategy SA Scoping Report¹⁷² (2007)

CORE STRATEGY SA OBJECTIVE	SELECTED SUB-OBJECTIVES
Protect and enhance the natural environment	<ul style="list-style-type: none"> Improve water quality in rivers and groundwater supplies
Use natural resources (including water, fossil fuels, land and minerals) efficiently	<ul style="list-style-type: none"> Encourage water use efficiency and water saving measures Encourage sustainable farming practices

13.2 What's the sustainability 'baseline'?

Current baseline

- 13.2.1 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,¹⁷³ water supply is not seen as being a constraint to potential growth in Brentwood Borough.¹⁷⁴
- 13.2.2 The Wastewater Treatment Works (WwTWs) at Doddinghurst and Ingatestone are currently at capacity and unable to receive any additional flow (Figure 13.1). 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). It is recommended that growth in these areas be avoided.¹⁷⁵
- 13.2.3 With respect to Water Framework Directive targets, the water quality of rivers in the Borough is generally Moderate Status. Poor Status is present on the Rivers Ingrebourne, MarDyke and Wid. The chemical status of groundwater bodies in the Borough is classified as Poor and deteriorating.¹⁷⁶
- 13.2.4 There is a major chalk aquifer within Brentwood Borough. However, it is overlain by the London Clay which is classified as a non-aquifer and by the Lower London Tertiary deposits. The chalk in the Borough is therefore generally at low risk from contamination. There are no Source Protection Zones within the Borough.¹⁷⁷

¹⁷² Brentwood Borough Council Local Development Framework: Core Strategy & DC Policies DPD and Gypsy & Traveller Scoping Report [online] available at: see http://www.brentwood.gov.uk/pdf/pdf_1346.pdf (accessed 04/2013)

¹⁷³ These plans involve demand management measures together with increased capacity at Abberton reservoir

¹⁷⁴ Entec (2011) Brentwood Scoping and Outline Water Cycle Study [online] available at: <http://www.brentwood.gov.uk/pdf/21032011165157u.pdf> (accessed 11/2012)

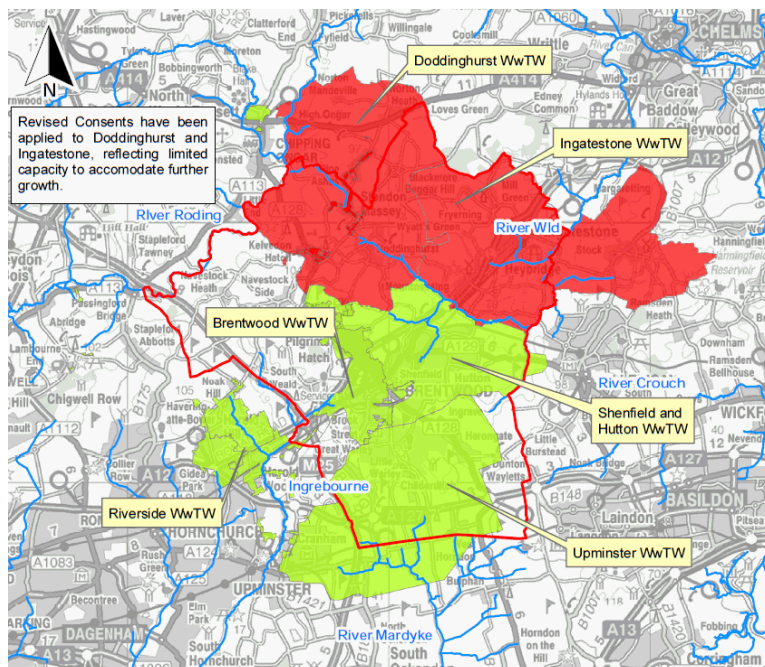
¹⁷⁵ ibid

¹⁷⁶ ibid

¹⁷⁷ Brentwood Borough Council (2000) Statutory Contaminated Land Strategy [online] available at: http://www.brentwood.gov.uk/pdf/pdf_154.pdf (accessed 11/2012)

13.2.5

Figure 13.1: Wastewater treatment constraints in the Borough. Red shaded areas signify no capacity for growth in a WwTWs indicative catchment. Green areas show capacity for growth. The shaded areas are from data provided by sewerage providers Anglian Water and Thames Water for treatment works in the catchment area. Areas not shaded are covered by treatment works outside of the catchment area.¹⁷⁸



Future baseline assuming 'business as usual'

13.2.6

The water resources of the Borough are only likely to be able to cope with the growth in population and development predicted in future though demand management. This will require greater water efficiency in new developments. Without the Plan, such measures are less likely to be installed due to their relative expense, and so demand for water resources may exceed supply. In the absence of a Plan, development may also occur in areas where identified as having no further waste water treatment capacity. This may result in declining water quality.

13.2.7

Climate change projections for Essex¹⁷⁹ 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. This may also reduce water quality, which could have implications in terms of meeting the requirements of the Water Framework Directive.

13.3

What are the key issues that should be a focus of SA?

- Water quality is a concern in the Borough, with efforts needed to improve the ecological status of waterways.
- Given the Borough's position in an area of serious water stress, water efficiency measures should be sought.

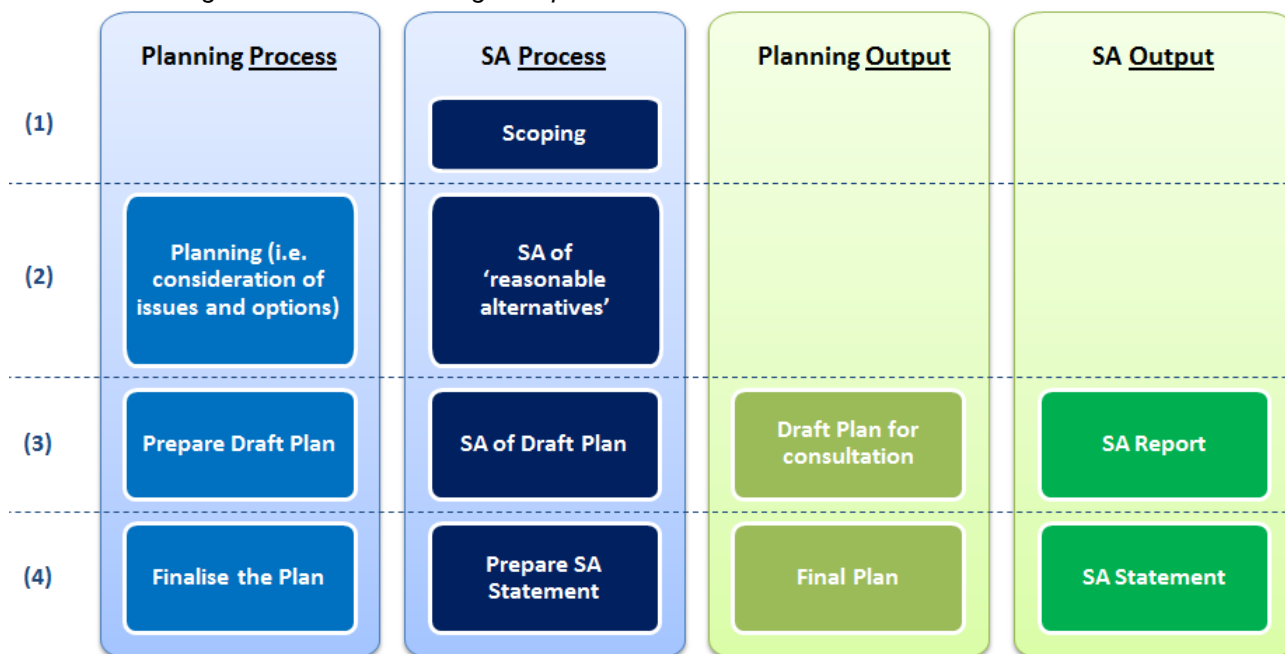
¹⁷⁸ Entec (2011) Brentwood Scoping and Outline Water Cycle Study [online] available at: <http://www.brentwood.gov.uk/pdf/21032011165157u.pdf> (accessed 11/2012)

¹⁷⁹ 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 12/2012)

14 NEXT STEPS

14.1.1 SA scoping is the first stage in a four stage plan-making / SA process (see Figure 14.1).

Figure 14.1: The four stage SA process



14.1.2 The next stage (Stage 2) will involve appraising 'reasonable alternatives' for a range of Plan issues and feeding back findings to the Council so that they might be taken into account when preparing the Draft Plan.

14.1.3 Once the Draft Plan has been prepared it will be subjected to SA and an SA Report prepared for consultation alongside it.

14.1.4 The SA Report must contain a range of specified information, essentially: 1) an appraisal of the Draft Plan and reasonable alternatives, 2) 'outline reasons for selecting the alternatives dealt with'; and 3) other less crucial things (including a summary of the SA scope and a description of 'measures envisaged for monitoring').

14.1.5 The purpose of providing this information in the SA Report is to inform both A) those who might want to make representations on the Draft Plan approach / alternatives; and B) those tasked with finalising the Plan subsequent to the Draft Plan consultation.

14.1.6 Subsequent to consultation on the Draft Plan / SA Report the Plan will be finalised. At the time of Plan adoption an 'SA Statement' will be prepared. The role of the SA Statement is essentially twofold:

- 1) It must bring the story of plan-making / SA up to date. Whereas the SA Report must only explain the reasons behind selecting the Draft Plan approach subsequent to a consideration of alternatives, the SA Statement must also explain the reasons behind decisions taken subsequent to the consultation on the Draft Plan (and the influence of the SA Report).
- 2) It must present 'measures decided concerning monitoring' (as opposed to the SA Report, which must present only 'measures envisaged concerning monitoring').

APPENDIX 1 – LINKS TO THE BRENTWOOD CORE STRATEGY SA

During November and December 2009, Brentwood Borough Council consulted on issues and options facing the Borough up to 2031. The intention at that time was to use the findings of the consultation as the basis for preparing the *Brentwood Local Development Framework Core Strategy and Generic Development Control DPD*, and *Gypsy and Travellers DPD* (referred to here as the 'Core Strategy'). The Core Strategy would have set overarching planning strategy and more detailed planning policy. Site allocations would have subsequently followed within other planning documents. Housing and job provision were at this time set out in the East of England Plan (now revoked).

However, for pragmatic reasons (such as the revocation of the East of England Plan and NPPF requirement to meet objectively assessed needs) the Council decided not to proceed with a Core Strategy, but rather to proceed with a Local Plan that sets overarching strategy and more detailed planning policy; *plus* includes site allocations and housing and job targets based on objectively assessed needs. The Local Plan will cover a period of 15 years, running from 2015-2030. This approach seemed entirely consistent with the new approach to planning that was emerging at the time, and has since been shown to be entirely in-line with Government's reformed approach to planning.

By law, the Core Strategy would have been subjected to SA. By the time of the 2009 issues and options consultation: 1) an SA Scoping Report had been produced and consulted upon; and 2) an Interim SA Report had been produced setting out an appraisal of Core Strategy options.

The 2009 Scoping Report provides a useful basis for determining the scope of Local Plan SA. However, it is important to recognise that A) the 2009 document was prepared with a view to forming the basis for SA of a Core Strategy, whilst at the current time there is a need to scope the SA of a Local Plan; and B) the 2009 Scoping Report was a product of its time more generally.

The 2009 Scoping Report was structured according to the following fourteen topics:

- Air quality
- Biodiversity and open space
- Climatic factors and flooding
- Community (including: population, health, crime and social equity)
- Cultural heritage & material assets
- Economy & employment
- Education
- Gypsies & Travellers
- Housing
- Landscape
- Soil & contamination
- Transport and travel
- Waste
- Water quality & water resources

Most of the topics have been retained for use within the current Scoping Report. The following points explain the reasons for modifying the list of topics considered.

- 'Biodiversity and Open Space' is now 'Biodiversity'
 - Open space and green infrastructure is something that is considered across a number of topics (e.g. 'community and well-being' and 'flood risk')
- 'Climatic factors and flooding' has been split into 'Climate change mitigation' and 'Flooding'

- Climate change adaptation issues other than flooding can be considered under other topics, e.g. climate change adaptation issues as they relate to biodiversity.
- ‘Community (including: population, health, crime and social equity)’ has been renamed ‘Communities and well-being’ for brevity.
- ‘Cultural heritage and material assets’ has been renamed ‘Cultural heritage’
 - Material assets that are important from a sustainability perspective may relate to any number of topics.
- ‘Education’ has been removed as a stand-alone topic.
 - Access to primary and secondary education can be considered under the ‘communities and well-being’ topic, whilst higher education and skills development can be considered under ‘economy and employment’
- ‘Gypsies and Travellers’ has been removed as a stand-alone topic.
 - The way in which Gypsies and Travellers are planned for in Brentwood has changed since 2009, in line with alterations to the national planning policy context. As such, it is appropriate to consider issues relating Gypsies and Travellers alongside issues relating to other social groups under the banner of ‘Communities and well-being’.
- ‘Transport and travel’ has been removed as a stand-alone topic.
 - The degree to which the Local Plan / Local Plan alternatives may support a move away from car dependency can be considered under the ‘Climate change mitigation’ topic. There may also be implications for ‘Community and well-being’ (if the effect is also to increase ‘access’ to services and facilities, etc.) and ‘Economy and employment’ (if the effect is to reduce congestion). Where reduced traffic has implications in relation to addressing air pollution problems, then this can be considered under the ‘Air quality’ topic.

The sustainability issues and objectives that were identified as an output of scoping in 2009 have also been drawn on as ‘starting point’ for scoping at the current time. Links are described within this Scoping Report as appropriate.

APPENDIX 2 – THE SUGGESTED SCOPE OF SITE OPTIONS ASSESSMENT

As explained in Chapter 1, appraisal of site options will require application of a bespoke methodology. The methodology will reflect the agreed SA scope, but will also strongly reflect data availability. Set out below is the Council's initial understanding of the data that it will be possible to gather on site options.

On the basis of this data, it will be possible to categorise sites red / amber / green according to performance criteria - e.g. is the site within 400m of a local / district park? – with a view to informing the appraisal of site options / the selection of preferred sites to allocate.

Stakeholders are welcome to comment on data that should be collected and/or the performance criteria that should be applied.

SITE DETAILS

- Site name, SHLAA ref (if applicable), etc.
- Site area (ha)
- Grid ref
- Ward / Parish (if applicable)
- Ownership details
- Proposed use (housing, employment, retail, mixed-use)
- Site density options and indicative number of dwellings (if proposed housing)
- Employment plot ratio (if proposed employment)
- Employment floorspace (if proposed employment)
- Job provision (if proposed employment)
- Source (where knowledge of site has come from)

LAND USE AND POLICY DESIGNATION

- Existing land use and neighbouring land uses
- Replacement Local Plan (2005) designation(s)
- Previously developed land (brownfield)
- Underutilised
- Green Belt
- Minerals & waste safeguarded areas
- Agricultural land classification
- Special Landscape Area
- Landscape and visual impact (Landscape Character Appraisal)
- Local Wildlife Site (LoWS) / nature conservation
- Protected urban open space
- Conservation Area
- Listed buildings
- Scheduled monuments

TRANSPORT

- Access to main distributor road (comments from Essex County Council)
- Highway capacity of surrounding network
- Access to bus and train (approx)
- Walking and cycling

ACCESS TO SERVICES

- Access to Post Office (approx)
- Access to GP with capacity (approx)
- GP capacity
- Access to employment area (approx)
- Access to main retail area (approx)
- Access to local and district parks
- Access to grass pitches

EDUCATION

- Primary Priority Admissions Area: School (DFES number)
- Capacity for pupil product to be accommodated at nearest primary school and whether developer contribution would be required (comments from Essex County Council)
- Secondary Priority Admissions Area: School (DFES number)
- Capacity for pupil product to be accommodated at nearest secondary school and whether developer contribution would be required (comments from Essex County Council)
- Early years and childcare places (indicative dwelling no. x 0.09 places)

UTILITIES

- Water supply
- Capacity of sewerage and wastewater treatment works (WwTW)
- Gas / Electricity supply
- Telecommunications (phone, broadband etc)

FLOODING

- Flood zone
- Surface water flooding

SHLAA

- Conclusion of assessment in SHLAA (suitable, available, achievable) (if applicable)

VIABILITY

- Site ownership and legal issues (multiple owners etc.)
- Willingness of landowners and/or developers
- Likely to come forward in plan period

CONSULTATION

- Public views from previous consultation (2011 Neighbourhood Consultation)