



The West of Braintree Garden Community Plan: Issues & Options Consultation (Regulation 18)

**Draft Sustainability Appraisal (SA):
Scoping & Environmental Report – November 2017**





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Glossary of Acronyms

AA	Appropriate Assessment
ALC	Agricultural Land Classification
AQMA	Air Quality Management Area
BDC	Braintree District Council
CA	Conservation Area
DCLG	Department for Communities and Local Government
DECC	Department of Energy and Climate Change
DEFRA	Department for Environment, Food and Rural Affairs
DfT	Department for Transport
DPD	Development Plan Document
EA	Environment Agency
EC	European Commission
ECC	Essex County Council
EU	European Union
GC	Garden Community
GCP	Garden City Principle
Ha	Hectare
HE	Historic England
HMA	Housing Market Area
HRA	Habitats Regulations Assessment
I&O	Issues and Options
LB	Listed Building
LCA	Landscape Character Assessment
LEP	Local Enterprise Partnership
LPA	Local Planning Authority
MSA	Minerals Safeguarding Area
NE	Natural England
NEGC	North Essex Garden Communities
NHS	National Health Service
NPPF	National Planning Policy Framework
OAN	Objectively Assessed Need
PDL	Previously Developed Land
PO	Preferred Options
PPG	Planning Practice Guidance
PRoW	Public Right of Way
SA	Sustainability Appraisal



SAC	Special Area of Conservation
SEA	Strategic Environmental Assessment
SFRA	Strategic Flood Risk Assessment
SHMA	Strategic Housing Market Assessment
SM	Scheduled Monument
SO	Sustainability Objective
SPA	Special Protection Area
SPD	Supplementary Planning Document
SSSI	Site of Specific Scientific Interest
SuDS	Sustainable Drainage System
TCPA	Town and Country Planning Association
UDC	Uttlesford District Council
UK	United Kingdom
WPA	Waste Planning Authority
WoBGC	West of Braintree Garden Community

1. Introduction

1.1 Background

Braintree District Council and Uttlesford District Council, in conjunction with Essex County Council as a key partner in its strategic role for infrastructure and service provision, commissioned Place Services of Essex County Council to undertake an independent Sustainability Appraisal (SA) for the West of Braintree Garden Community Plan.

Place Services are acting as consultants for this work; therefore the content of this SA should not be interpreted or otherwise represented as the formal view of Essex County Council.

1.2 The West of Braintree Garden Community Plan

The main purpose of this Plan is to set out a shared vision for the new community at West of Braintree and a strategy for its delivery. It will also set out a range of development objectives that will help deliver this vision, and more detailed policies that will guide land-use proposals and secure timely delivery of development and infrastructure in the short, medium and long term, in accordance with relevant Local Plan policies. The Plan will need to have flexibility in the way that development might be delivered over time, but must also be true to the development and design ambitions that are agreed for the new community.

The first stage in the plan-making process has been the preparation of an Issues and Options (Regulation 18) stage document. It intends to provide information to stakeholders and local communities, and invites comments and views on initial issues and options for the development of a Garden Community at West of Braintree (WoBGC). The Issues and Options document represents the first stage of the production of a formal document to provide a framework for development which will guide the master planning stages that will follow.

This SA represents the appraisal of the West of Braintree Garden Community Garden Community Plan at the first Issues and Options stage and accompanies the consultation of the document.

1.3 The Principle of the Garden Community in emerging Local Plans

Local Plans are the main vehicle for conveying an area's growth requirements and how these will be accommodated. Braintree District Council, Colchester Borough Council and Tendring District Council agreed to come together through a shared desire to promote a sustainable growth strategy for the longer term. Each Local Planning Authority (LPA) in their production of Local Plans for their administrative areas, intend to adopt a strategic 'Section One' that addresses and articulates strategic priorities over the area of the three authorities. Central to this is the effective delivery of planned strategic growth, particularly housing and employment development, with the necessary supporting infrastructure.

The West of Braintree Garden Community Plan is being jointly prepared by Braintree District Council and Uttlesford District Council because the Garden Community could cover land in each authority's district. This joint working has been brought about as a result of the Councils' inclusion of the principle of development of a new Garden Community in their emerging Local Plans.

It should be noted that development at the West of Braintree Garden Community is identified in the joint Strategic Section One of the Tendring District, Colchester Borough and Braintree District Councils' Draft Local Plans as well as the emerging Uttlesford District Council Local Plan. The principle of and need for allocating Garden Communities within the north Essex area is established within the strategic Section One Local Plan. In the case of Uttlesford District Council the West of Braintree Garden Community has been included in the consultation Draft Local Plan (Regulation 18) but a decision has not yet been made if the Garden Community should extend into their district and that decision will be made by the Council before the Uttlesford Local Plan is submitted for independent examination, after the Council has considered all of the representations which have been made in relation to its Draft Local Plan (Regulation 18). The Garden Community has been included in the emerging Local Plans in consideration of a number of reasonable alternative approaches to delivering growth and meeting housing needs in both areas.

Within Section One, draft Local Plan Policy SP10 specifically refers to development of a Garden Community at the West of Braintree and sets out the requirement for the preparation of a Strategic Growth Development Plan Document (DPD) that will provide a framework for the subsequent preparation of more detailed masterplans and other design and planning guidance for the site. A similar policy, Policy SP8, is included within the Uttlesford District Local Plan, which is at the 'preferred options' Regulation 18 stage. Public consultation on this stage of the Local Plan was undertaken in summer 2017.

2. Sustainability Appraisal / Strategic Environmental Assessment

2.1 The Requirement for Sustainability Appraisal

The requirement for Sustainability Appraisal (SA) and Strategic Environmental Assessment (SEA) emanates from a high level national and international commitment to sustainable development. The most commonly used definition of sustainable development is that drawn up by the World Trade Commission on Environment and Development in 1987 which states that sustainable development is:

‘development that meets the needs of the present without compromising the ability of future generations to meet their own needs.’

This definition is consistent with the themes of the NPPF, which draws upon The UK Sustainable Development Strategy Securing the Future’s five ‘guiding principles’ of sustainable development: living within the planet’s environmental limits; ensuring a strong, healthy and just society; achieving a sustainable economy; promoting good governance; and using sound science responsibly.

SEA originates from the European Directive 2001/42/EC “on the assessment of the effects of certain plans and programmes on the environment” (the ‘SEA Directive’) which came into force in 2001. It seeks to increase the level of protection for the environment; integrate environmental considerations into the preparation and adoption of plans and programmes; and promote sustainable development.

The Directive was transposed into English legislation in 2004 by the Environmental Assessment of Plans and Programmes Regulations (the ‘SEA Regulation’) which requires an SEA to be carried out for plans or programmes,

‘subject to preparation and/or adoption by an authority at national, regional or local level or which are prepared by an authority for adoption, through a legislative procedure by Parliament or Government, and required by legislative, regulatory or administrative provisions’.

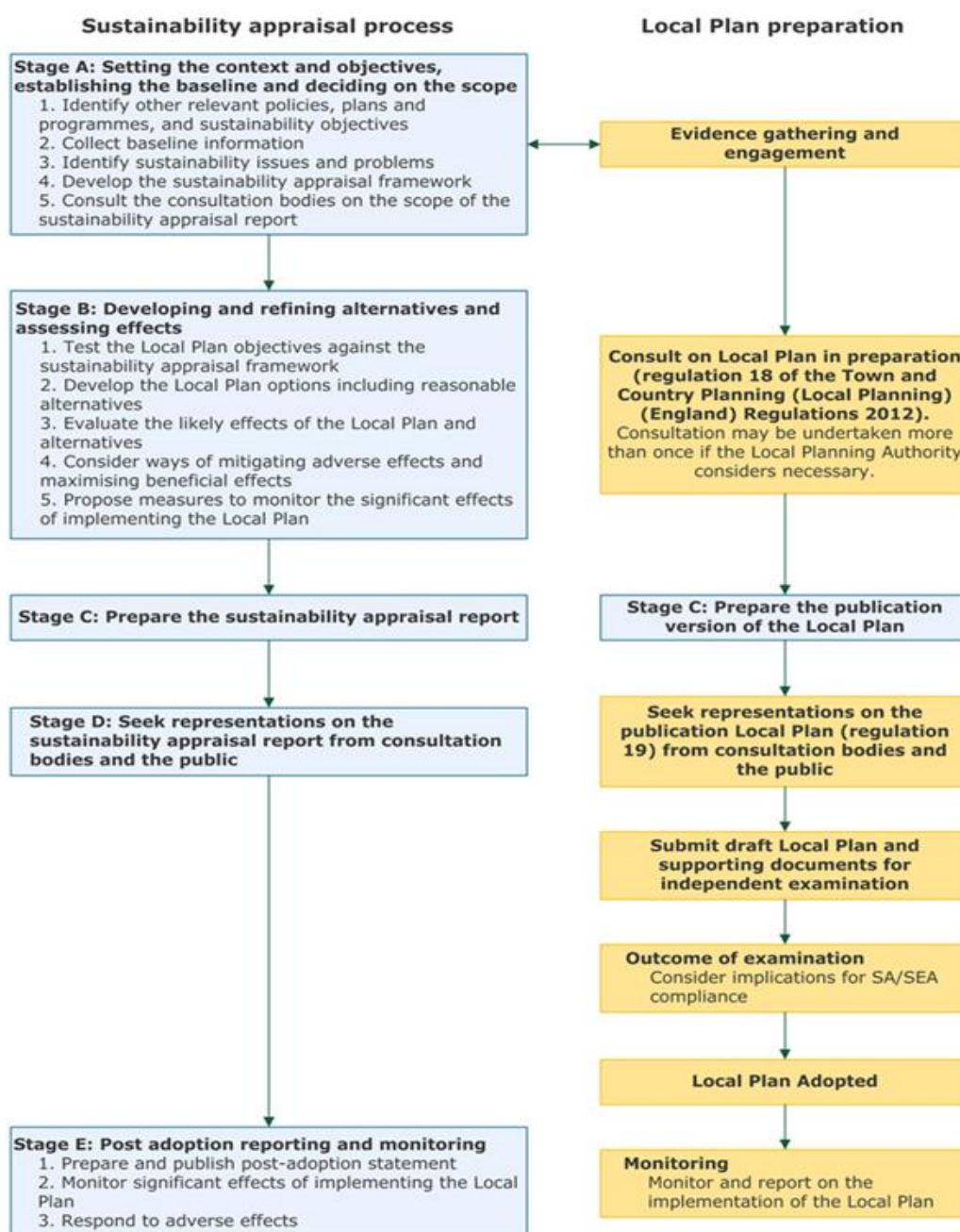
This includes Development Plan Documents. The aim of the SEA is to identify potentially significant environmental effects created as a result of the implementation of the plan or programme on issues such as *‘biodiversity, population, human health, fauna, flora, soil, water, air, climatic factors, material assets, cultural heritage including architectural and archaeological heritage, landscape and the interrelationship between the above factors’* as specified in Annex 1(f) of the Directive. SA examines the effects of proposed plans and programmes in a wider context, taking into account economic, social and environmental considerations in order to promote sustainable development. It is mandatory for Local Plans to undergo a Sustainability Appraisal in accordance with the Planning and Compulsory Purchase Act 2004 as amended by the Planning Act 2008, and in accordance with paragraph 165 of the NPPF.

Whilst the requirements to produce a SA and SEA are distinct, Government guidance considers that it is possible to satisfy the two requirements through a single approach providing that the requirements of the SEA Directive are met. This integrated appraisal process will hereafter be referred to as SA.

2.2 The Sustainability Appraisal Process

The SA of the West of Braintree Garden Community DPD follows that of the Sustainability Appraisal process as iterated in National Planning Practice Guidance on Sustainability Appraisal requirements for local plans. The following 5 sequential stages are documented below.

Figure 1: Stages in the Sustainability Appraisal Process and Local Plan / DPD Preparation



Source: Planning Practice Guidance – Sustainability appraisal requirements for local plans (Paragraph: 013 Reference ID: 11-013-20140306 Revision date: 06 03 2014)

2.3 The Aim and Structure of this Report

This report responds to Stages A and B in the SA process above. It is the intention of the Plan to follow the process of a second Regulation 18 consultation on the Plan's 'Preferred Options' in summer 2018 and with this in mind, elements of Stage B above will be completed through the accompanying SA at that stage.

The production of a Sustainability Appraisal (Environmental) Report is a statutory requirement at the Regulation 18 stage, and this SA Report has been produced to accompany the Plan for West of Braintree Garden Community.

This report is accompanied by two Annexes. These are:

- Annex A – Plans and Programmes
- Annex B – Baseline Information

Following the finalisation of this Report, the SA requires consultation. There are three statutory consultees or 'environmental authorities' that are required to be consulted for all Sustainability Appraisal and Strategic Environmental Assessment documents. These are:

- The Environment Agency;
- Natural England; and
- Historic England.

In addition to these, consultation will seek to engage the wider community in order to encompass comprehensive public engagement. The relevant authorities may additionally wish to invite comments from focussed groups, relevant stakeholders and interested parties. The detailed arrangements for consultation are to be determined by Braintree District Council and Uttlesford District Council.

The environmental authorities and public are to be given 'an early and effective opportunity' within appropriate time-frames to express their opinion. This includes the specific notification of the consultation documents and timeframes to those persons or bodies on the 'consultation databases' of the LPAs. This reflects those persons or bodies who have commented on previous planning documents through consultation.

This SA has been produced suitably in advance of the start of the formal consultation period, to accompany and influence decision making within the Plan process iteratively. Notably this SA has been produced to be available to inform the relevant LPAs' Local Plan Committee / Cabinet meetings.

3. Setting the Scope of the SA: Sustainability Context, Baseline and Objectives

3.1 Introduction

The SA of the Section One for Local Plans in North Essex set the scope for the appraisal of options and Plan content relevant to that strategic area. The SA of the Uttlesford District Council (UDC) Local Plan also set the scope for the appraisal of that Plan. Although still a strategic undertaking, this SA needs to develop a framework for appraising the West of Braintree Garden Community options that is more specifically relevant to the area in question.

That established, the Section One SA and UDC Local Plan SA forms a good starting point for identifying any sustainability issues relevant to the West of Braintree Garden Community, both in the scope of those SAs (identified in initial Scoping Reports) and the appraisal of the Garden Community itself in each SA process. In addition, Policy SP10 of the Section One and Policy SP8 of the Uttlesford Local Plan identifies policy criteria relevant to the Garden Community and these also assist in the identification of sustainability issues. Further, the North Essex Garden Community Charter identifies a set of more general overarching principles, which can aid the identification of sustainability objectives.

The following section outlines the relevant plans and programmes and the baseline information profile for the West of Braintree area, building on the Section One and UDC Local Plan SAs to date.

3.2 Plans and Programmes (Stage A1)

DPDs must have regard to existing policies, plans and programmes at national and regional levels and strengthen and support other local plans and strategies. It is therefore important to identify and review those policies, plans and programmes and Sustainability Objectives which are likely to influence the DPD at an early stage. The content of these plans and programmes can also assist in the identification of any conflicting content of plans and programmes in accumulation with the DPD. Local supporting documents have also been included within this list as they will significantly shape policies and decisions in the three authority area.

It is recognised that no list of plans or programmes can be definitive and as a result this report describes only the key documents which influence the Plan.

Table 1 outlines the key documents, whilst a comprehensive description of these documents together with their relevance to the Plan is provided within Annex A.

Table 1: Key Documents

International Plans and Programmes
European Commission (EC) (2011) A Resource-Efficient Europe – Flagship Initiative Under the Europe 2020 Strategy, Communication from the Commission to the European Parliament, the Council, The European Economic and Social Committee of the Regions.
European Landscape Convention (Florence, 2002)
European Union Water Framework Directive 2000
European Union Nitrates Directive 1991
European Union Noise Directive 2002
European Union Floods Directive 2007
European Union Air Quality Directive 2008 (2008/50/EC) and previous directives (96/62/EC; 99/30/EC; 2000/69/EC & 2002/3/EC)
European Union Directive on the Conservation of Wild Birds 2009
European Union Directive on the Conservation of Natural Habitats and of Wild Fauna and Flora 1992
European Community Biodiversity Strategy to 2020
United Nations Kyoto Protocol
World Commission on Environment and Development 'Our Common Future' 1987
The World Summit on Sustainable Development Johannesburg Summit 2002
Environmental Assessment of Plans and Programmes Regulations 2004 (the SEA Regulations).
The Conservation of Habitats and Species Regulations, 2010
Review of the European Sustainable Development Strategy (2009)
Environment 2010: Our Future, Our Choice (2003)
SEA Directive 2001
The Industrial Emissions Directive 2010

Energy Performance of Buildings Directive 2010 on the energy performance of buildings 2010/31/EU
The Drinking Water Directive 1998
The Packaging and Packaging Waste Directive 1994
EU Seventh Environmental Action Plan (2002-2012)
European Spatial Development Perspective (1999)
European Convention on the Protection of the Archaeological Heritage (Valletta, 1992)
Aarhus Convention (1998)
National Plans and Programmes
National Planning Practice Guidance (2016)
The Localism Act 2011
National Planning Policy Framework (March 2012)
The Housing White Paper (February 2017)
The Future of Transport White Paper 2004
Housing Act (2004)
Building a Greener Future: Policy Statement (July 2007)
Community Infrastructure Levy Guidance (April 2013)
Underground, Under Threat - Groundwater protection: policy and practice (GP3)
Model Procedures for the Management of Land Contamination – Contaminated Land Report 11 (September 2004)
Natural Environment and Rural Communities Act 2006
Countryside and Rights of Way Act 2000
Planning and Compulsory Purchase Act 2004
The Education (School Information) (England) (Amendments) Regulations, 2002

Childcare Act, 2006
Flood & Water Management Act 2009
The Air Quality Strategy for England, Scotland, Wales and Northern Ireland (2007)
Safeguarding Our Soils: A Strategy for England (2009)
Natural Environment White Paper: The Natural Choice: Securing the Value of Nature (2011)
The National Adaptation Programme – Making the Country Resilient to a Changing Climate (2013)
Planning Policy for Traveller Sites (2012)
National Planning Policy for Waste (2014)
Adapting to Climate Change: Ensuring Progress in Key Sectors (2013)
DECC National Energy Policy Statement EN1 (2011)
DCLG: An Introduction to Neighbourhood Planning (2012)
JNCC/Defra UK Post-2010 Biodiversity Framework (2012)
Mainstreaming Sustainable Development (2011)
UK Marine Policy Statement, HM Government (2011)
Electricity Market Reform White Paper 2011
DfT (2013) Door to Door: A strategy for improving sustainable transport integration
DCLG (2011) Laying the Foundations: A Housing Strategy for England
DEFRA (2011) Securing the Future: Delivering UK Sustainable Development Strategy
DECC (2011) UK Renewable Energy Roadmap (updates setting out progress and changes to the strategy dated 2013 and 2013)
Community Energy Strategy (DECC, 2014)
The National Flood and Coastal Erosion Risk Management Strategy for England (Environment Agency, 2011)
Waste prevention programme for England: Prevention is better than cure – The role of waste prevention in

moving to a more resource efficient economy (HM Government, 2013)

Future Water: The Government's Water Strategy for England (DEFRA, 2008)

Water for People and the Environment: Water Resources Strategy for England and Wales (Environment Agency, 2009)

Safeguarding our Soils: A Strategy for England (DEFRA, 2009)

Sub-national Plans and Programmes

Essex Gypsy and Traveller and Travelling Showpeople Accommodation Assessment – on behalf of EPOA (July 2014)

Looking Back, Moving Forward – Assessing the Housing Needs of Gypsies and Travellers in Essex (2006)

Greater Essex Demographic Forecasts Phase 7 (2015)

Essex Transport Strategy: the Local Transport Plan for Essex (2011)

2011 Essex Biodiversity Action Plan

Commissioning School Places in Essex 2015-2020

Essex County Council Joint Municipal Waste Management Strategy 2007-2032

Anglian River Basin Management Plan (2015)

Essex Wildlife Trust Living Landscape plans

Essex Wildlife Trust Living Landscape Statements

Respecting our Past, Embracing our Future: A Strategy for Rural Essex (2016)

ECC Parking Standards: Design and Good Practice (September 2009)

The Essex Local Area Agreement – 'Health and Opportunity for the People of Essex' 2008 – 2011 (2010 Refresh)

ECC Development Management Policies (February 2011)

The Essex Strategy 2008 – 2018

Sustainable Drainage Systems Design and Adoption Guide 2012

Essex Minerals Local Plan (2014)
Essex Replacement Waste Local Plan (submitted June 2016)
Haven Gateway: Programme of Development: A framework for Growth, 2008 – 2017 (2007)
Haven Gateway: Integrated Development Plan (2008)
South East LEP Investment and Funding (March/April 2014)
Anglian Water Business Plan (2015-2020) (2012)
Draft Water Resource Management Plan (2014-2039) (2014)
Combined Essex Catchment Abstraction Management Plan (2013)
Haven Gateway Water Cycle Study: Stage 1 and 2 Reports (2008)
South East LEP Growth Deal and Strategic Economic Plan (2004)
ECC Developer's Guide to Infrastructure Contributions (Revised Edition 2016)
Vision for Essex 2013-2017: Where Innovation Brings Prosperity (2013)
Corporate Outcomes Framework 2014-2018 Essex County Council (2014)
Colchester Draft Surface Water Management Plan (2014)
A12/A120 Route Based Strategy (2013)
Highway Authority's Development Management Policies (2011)
Economic Plan for Essex (2014)
Essex Design Guide (2005)
North Essex Catchment Flood Management Plan (2009)
Essex and South Suffolk Shoreline Management Plan (second phase) (2011)
Dedham Vale AONB and Stour Valley Management Plan 2010 – 2015
Local Plans and Programmes

Braintree District Council, Chelmsford City Council, Colchester Borough Council, Tendring District Council, Objectively Assessed Housing Need Study - Peter Brett Associates (July 2015 and updated 2016)
North Essex Concept Feasibility Study (AECOM) - July 2016
HRA Report for North Essex Authorities Strategic Section 1 for Local Plans (LUC) (including Appropriate Assessment) – May 2017
Braintree Local Plan Preferred Option Assessment Highways/Transport Planning -March 2017
North Essex Garden Communities Employment & Demographic Studies (2017)
North Essex Garden Communities Movement and Access Study – March 2017
Landscape Character Assessment (Chris Blandford Associates, September 2006)
Garden Communities Concept Feasibility Study (2016)
Technical Groups and Workshops (2016-2017)
North Essex Local Plans (Strategic) Section 1 Viability Assessment (2017)
West of Braintree Concept Framework (2017)
Chris Blandford Associates – Land West of Braintree Landscape & Visual Appraisal (June 2017)
Uttlesford District Council – Ecological sites on and adjacent to new settlement/ neighbourhood proposals (May 2017)
Uttlesford District Council – New settlement proposals: landscape & visual impact (May 2017)
Uttlesford District Council – Brief heritage impact assessment – West of Braintree (May 2017)
Troy Planning & Design – Infrastructure Delivery Plan (May and July 2017)
WYG – Uttlesford Local Plan Transport Study (December 2016) and Addendum (June 2017)
Pathfinder Consultants & Malins Associates - Economic Viability Study (2016)

3.3 Baseline Information (Stage A2)

Annex B details the complete Baseline Information profile for the area relevant to the West of Braintree Garden Community and surrounds.

The following section outlines a summary of the key baseline information relevant to the Garden Community area and therefore the current state of the environment in the area.

3.3.1 Economy

- Due to its rural nature the site does not currently accommodate any notable retail uses. It is however located approximately 5km to the west of Braintree Town Centre, 6km to the west of the regional shopping and leisure attraction of Braintree Freeport and 13km from Great Dunmow Town Centre.
- The site currently contains a number of small scale employment uses, mostly related to agricultural and industrial uses.
- The site is close to the established employment centre of Braintree which has seen steady growth in recent years and unemployment in the area is low with a high rate of economic activity. Jobs are growing at a faster rate than the working age population demonstrating a demand for labour. However, levels of out-commuting are high, qualification levels are relatively low and productivity is behind the national average.
- The area benefits from a diverse sectoral employment base. This includes a relatively high proportion of manufacturing activity which, despite the long-term loss of industrial employment and a general absence of large employers, offers evidence of innovation and growth potential. While there are significant economic 'anchors' in the wider vicinity (some of which are significant employers of local residents), the area has not yet been able to realise the full benefit from them.
- The North Essex Garden Communities Employment & Demographic Studies (SQW / Cambridge Econometrics 2017) states that, the Garden Community is 'likely to be associated with significant jobs growth... The presumption is that jobs linked to exogenous growth processes will be physically on site (and appropriate provision will need to be made for them). Those linked to homeworking will be physically associated with the homes of residents and therefore also on site; in relation to these jobs, the design of housing will be crucially important. Those related to the consumption of local services may or may not be on site, but all will be reasonably "local"; provision in relation to this component will need to be planned so as to complement, rather than displace, existing local service provision (e.g. in the town of Braintree). In terms of the Garden City principle aspiration of 'one job per house'...West of Braintree has [a] challenging profile – which is plausible, given the wider economic dynamics of the sub-area of which it is a part, and its specific locational attributes.'
- Within South Uttlesford growth is linked to potential employment opportunities at a future expanded London Stansted Airport. The continued growth in the airport's operations means that the airport itself increasingly acts as a hub which attracts a range of high level economic activities, particularly in knowledge-based sectors.

3.3.2 Heath

- The prevalence of child obesity within Uttlesford is 5.4% which is lower than the county average of 8.1% and considerably below the national average of 9.4%. Adult obesity is 18.2% within the District which is considerably below both the county average of 24.5% and the national average of 23.0%.
- The proportion of adults participating in 30 minutes, moderate intensity sport has decreased in recent surveys at the local, sub-national and national levels.
- There are 5 GP surgeries within Braintree, representing those that are the closest to the Garden Community area. Of these, only 2 are accepting new patients (NHS).
- Accessible Natural Greenspace Standard (ANGSt) created by Natural England sets out the minimum amount of accessible natural greenspace that any household should be within reach of. As much as 54% of households within Uttlesford do not have any access to natural greenspace.
- Life expectancy of residents within Uttlesford District is higher than the regional and national averages with men living for an average of 81.8 years and women on average living 85.1 years. The life expectancy of residents within Braintree is higher than the national figures, but below the regional figures. In general, life expectancy is increasing. The implications of this will mean that as people live longer there will be increased pressure on services and housing for the elderly.
- Braintree District Council has invested in new and enhanced leisure facilities in the District. In 2014 facilities at Braintree Sports & Health Club and at Braintree Swimming and Fitness were expanded and enhanced. Outdoor gyms have also been provided in Braintree.
- The Great Notley Country Park (GNCP) exists in close proximity to the site to the south east. This Country Park has a range of existing sports and open space facilities. GNCP has seen significant increases in popularity amongst local residents and visitors from further afield who use the park for both formal and informal leisure and recreation activities. The park has a number of important roles, meeting objectives relating to:
 1. Health and well-being;
 2. Giving children the best start in life; and
 3. Providing a high quality environment.

3.3.3 Housing

- There are approximately 34,000 dwellings within Uttlesford District and roughly 87% of these are privately owned.
- The average dwelling price within Uttlesford District is £317,132. This is significantly higher than the county and national averages. The average dwelling prices for the District and Essex are both above the national average while the regional average is lower. Braintree has a lower average dwelling price at £215,851.
- The Gypsy and Traveller Showpeople Accommodation Assessment identified that in Uttlesford there are 39 'unknown' households that may meet the new definition of traveller and 15 households that do not meet the new definition. There was an additional need for 10 net pitches arising from the gypsy and traveller community that do not meet the gypsy and traveller definition

under the PPTS. Caravan counts in Braintree have increased since January 2014, but with fluctuations in measuring periods between 2014 and 2016 due to not tolerated sites being removed from the statistics, presumably due to eviction or inclusion in the statistics for tolerated sites.

- Braintree District has been one of the fastest growing areas in the country over the past decade. The population of the District is currently approximately 150,000 and is projected to rise substantially by 2033. As life expectancy increases, the age structure is expected to change, with a marked increase in the number and proportion of the population who will be aged 65 and over. The number of one-person households is also expected to increase.
- In 2014/15, 73.9% of the net dwelling completions, which accounts for 10 dwellings, were affordable within Braintree.
- Meeting the housing needs in the Districts is an important issue. The SHMA for Braintree, Colchester, Chelmsford and Tendring Councils indicates that the majority of market housing and affordable housing should be 2 and 3 bedroom properties. This trend is replicated when assessing all housing, with 70.3% of housing need across the Districts and Boroughs is 2 and 3 bedroom dwellings.
- The West Essex and East Hertfordshire SHMA (update July 2017) indicates that Uttlesford has a district wide future need for affordable housing 2016-33 of 2,167 dwellings. This is an annual average need of 127 units and represents a proportion of overall need for affordable housing of 26%. The majority of affordable housing needs have been identified as units with 2-3 bedrooms.

3.3.4 Biodiversity

- There are a number of important areas of deciduous woodland, which is a priority habitat, scattered across the site. Of particular importance are the significant areas of ancient woodland, including the 19ha of Boxted Wood as well as that found at Golden Grove and Rumley Wood. These areas support potentially sensitive ecology which could be impacted upon by new development. There are two local wildlife sites on site.
- With the majority of the land in productive agricultural use; intensively farmed for arable crops, field size typically medium to large, and the majority of the water courses classified by the Environment Agency as ecologically poor, overall the site is unlikely to have high levels of existing biodiversity. There is however an area of good quality semi-improved grassland and priority mixed habitat around Stebbing Green.
- In addition to designated sites, consideration should also be given to non-designated value in regards to ecology on a site-by-site basis in order to protect and enhance species and habitats, including those that are protected. This could include Greenfield sites and areas of habitat considered to enrich appreciably the habitat resource within the context of local areas, such as species-rich hedgerows, municipal parklands or individual veteran trees.

3.3.5 Landscapes

- The landscape in the Garden Community area is typically flat and open in character with medium to large fields divided by hedgerows and some areas of woodland copse. There are a number of mature woodlands, including Boxted Wood.

- The land within the site forms an open farmland plateau with a gently sloping topography to the south. This topography means that there are long distance views into the site from the surrounding rural areas. There are a number of sensitive receptors associated with the surrounding settlement and large scale development has the potential to impact on the rural character of the small settlements surrounding the site.
- Protected lanes have significant historic and landscape values. They generally originate from pre-historic track ways, which have been in continual (if lighter) use since. Protected lanes are often narrow, sunken and enclosed by a combination of mixed deciduous hedges and mature trees, ditches and raised verges that can be indications of great age. The volume weights and speed of traffic is often limited to preserve the special character and due to their age and use they also have great biological value. Protected Lanes and non-statutory assets, however hold some weight in planning decisions. 'Pods Lane' is a designated Protected Lane which, as a heritage asset, would likely need to be integrated into any new Garden Community.

3.3.6 Soil Quality

- The vast majority of the land is in agricultural use (mostly Grade 2 Agricultural Land).

3.3.7 Population and Social (including Education and Skills)

- The majority of Uttlesford District's population are adults within the age bands of 20-44 years and 45-64 years. The district has a lower proportion of young persons under the age of 15 at 18.58% compared to the proportion of persons aged 65 and over at 18.78%.; however the proportion of young persons is above the county, regional and national equivalent.
- The population of Uttlesford District is projected to increase to 111,000 by 2039 which represents a 32.14% growth on the 2014 population figures. This percentage change is significantly higher than sub regional and national growth figures.
- The population within Uttlesford is projected to increase overall, but with a shift in structure. There is projected to be 31,000 Categorised as aged 65 years and over by 2039.
- Adjustments are made to the pupil forecast figures to take account of the numbers of primary and secondary pupils it is anticipated will be produced by new housing that is likely to be built by 2019. The forecasts show a deficit of some 400 places for primary schools and only a very small surplus of secondary school places across the district of Uttlesford.
- In Braintree District, the level of demand for secondary school places in Year 7 is predicted to rise over the course of the next 5 years.
- Uttlesford has the lowest level of deprivation for a local authority within Greater Essex. Of the 326 local authorities within England Uttlesford ranks within the bottom 10% for the four measures – extent, local concentration, average score and average rank.

3.3.8 Air Quality and Noise

- There are no Air Quality Management Areas (AQMAs) located in or in proximity of the area of the Garden Community.
- There may however be air quality issues related to nitrogen dioxide (NO₂) and particulate emissions from vehicles travelling on the A12 and A120.

3.3.9 Climatic Factors

- Tendring District, Colchester Borough and Braintree District all consume more energy from non-renewable sources as a percentage of their consumption compared to the East of England as a whole. More than three quarters of Braintree District's 3,019.1GWh respective energy consumption is from petroleum products and natural gas.
- More than half Uttlesford's 2,808.9GWh energy consumption is from petroleum products which are a result of transport, domestic and commercial industries (66.20%). In contrast only 15.9GWh of energy consumed is from bioenergy and waste products.
- The transport industry is responsible for the majority of CO₂ emissions within Uttlesford with 38.3%, followed by domestic consumption (31.1%) and industry and commercial consumption (30.7%).
- Uttlesford is ranked as the third highest district in Essex for per capita reductions in CO₂ emissions with 21.3%.
- Mean summer precipitation has a 67% likelihood of decreasing by up to 10% across the whole region by 2020 and by 2050 the south of the East of England will see decreases by up to 20%. By 2050 much of the region is expected to see a mean winter precipitation increase of between 10% and 20%.

3.3.10 Transport

- The site does not benefit from an existing rail link and in addition links to the A120 and the strategic road network are likely to prove private car use attractive.
- Access arrangements to strategic roads are not direct, however the close proximity of the broad area to the A120 ensures that sustainable access can be ensured. It is likely that a new A120/B1256 western junction and an interim A120/B1256 eastern junction upgrade will be required.
- Across the wider area, the strategic road and rail network is heavily used, particularly given the proximity to and connectivity with London. The principal roads are the A12 and A120, while the A130, A131, A133 and A414 also form important parts of the strategic road network.
- Currently it is forecast that numerous junctions in and around Braintree will be overcapacity by 2032 if no improvements to the A120 between Braintree and Marks Tey take place. This is particularly important because the lack of existing road infrastructure to the north of the site results in dependency on access from the south, putting pressure on A120, its junctions and the town centre route via the B1256.

- Furthermore there are potential capacity issues to the west of the site along the B1256 towards Great Dunmow and its connection to the A120 as well as the A120 westwards and further afield to Junction 8 of the M11. Without intervention there may also be issues with traffic impacts on Felsted to the south of the site, possibly as a result of a lack of an all-movements junction with the A120 in the vicinity of the site.
- The site contains many rural lanes and roads which currently lack footpaths however there are a number of Public Rights of Way across the site. The National Cycle Network (NCN16) currently connects to Flitch Way via a bridge over the A120. A further elevated foot and cycle bridge crosses the A120 connecting Fentons Road with the roundabout with Dunmow Road.
- Braintree railway station lies to the east, approximately 5km from the centre of the site, providing access to the Braintree-Witham branch line which provides limited connectivity (one train per hour) to the Great Eastern Mainline. Parking at Braintree railway station is limited to approximately 160 spaces, whilst at Braintree Freeport, parking is limited to a duration of 6hrs which limits its use for commuters.
- A limited existing bus network exists in close proximity to the site, currently setting down south of the site on the B1256 and providing an infrequent service to Chelmsford. A greater volume of buses currently serve Braintree town centre, however due to their current route pattern and the distance between the site and the town, accessibility by bus is poor. There is presently low bus use and bus services in Uttlesford with most services centred on London Stansted Airport, Saffron Walden and Great Dunmow.
- The growing demand for the use of airports, including London Stansted, will create additional associated pressures on road and rail infrastructure. The County Council, along with South East Local Enterprise Partnership, local and national agencies and other organisations, will also need to work collaboratively with the Local Planning Authorities to ensure infrastructure meets demand for enhanced economic growth.
- Regarding public transport, the direct access of the site to the A120 can be considered advantageous in terms of connecting the site with North Essex inter-urban bus routes, providing connectivity with Stansted Airport and employment centres and the existing settlement.
- Uttlesford District has a higher proportion of residents driving to work by either car or van (46.34%) when compared to regional and national levels as well as a larger proportion of residents working from home (6.43%). There is also a higher usage of trains as a mode of transport within the District compared to the national trend but fewer residents cycle or travel by underground or on a bus, minibus or coach. The proportion of residents who walk to work is comparatively similar to the regional and national levels.
- 90.4% of households in Uttlesford own at least one vehicle, a far higher percentage than for the East of England (82.3%) and for England and Wales (73.9%). The highest percentage of residents own 2 cars or vans whereas in both the East of England and England and Wales the majority of the population own 1 car or van. Braintree has a lower proportion of households owning 1 or more car at 40.3%.
- Just 59.9% of residents in Braintree remain in the District for their work. The work destination attracting the highest proportion of Uttlesford residents was the City of London (10.9%). The next most popular destinations for employment were the neighbouring areas of Cambridge with 991 commuters (5.5%) and Harlow with 410 (2.3%).

3.3.11 Water

- Both the Pods Brook and River Ter are already failing to meet the Water Framework Directive target of good ecological status and are considered to be at risk of further deterioration in water quality. Diffuse urban pollution from surface run off associated with future development could exacerbate this risk. This is coupled with the site being situated within a Drinking Water Safeguarding Zone and surface and groundwater nitrate vulnerability zones.
- Water management is challenging given the combination of development growth and Essex being one of the driest counties in England. In respect of water quantity a significant portion of the resource is considered to be 'water stressed'; the resource availability status of rivers and aquifers show that they are generally over abstracted; and not self-sufficient in relation to local sources of water supply and needs to import substantial quantities of water to satisfy existing demand.
- In Braintree, the latest Water Cycle Study concludes that potable water may require an upgrade, but that potable water supply can support the predicted growth in the District. A stage 2 report explores the possibility of reducing water demand through dwelling design. Additional Wastewater Treatment Works (now Water Recycling Centres) and Sewerage Networks may be required as environmental water quality is highlighted as a cause for concern, but again there is confidence that existing treatment facilities can support the additional wastewater.

3.3.12 Flooding

- The National Planning Policy Framework seeks to avoid inappropriate development in areas at risk of flooding, but where development is necessary, to ensure that it is safe and does not increase flood risk elsewhere.
- Areas of Flood Risk Zone 3 exist within the site boundaries to the east, associated with Pods Brook. Additionally, similar areas of Flood Risk Zone 3 exist in the south central parts of the site associated with the River Ter.
- Small isolated areas of Flood Risk Zone 2 exist within the site, however are not significant.
- The underlying London Clay and clay soils that can impede the rate of infiltration may limit the use of infiltration sustainable urban drainage systems on the site.

3.3.13 The Historic Environment

- The historic environment should be effectively protected and valued for its own sake, as an irreplaceable record which contributes to our understanding of both the present and the past.
- There are a number of Grade II listed buildings and two Grade II* listed buildings within the site, predominately associated with historic farmsteads. The value of these farmsteads is not only in their built structures but also in their rural settings.
- The area around Great Saling Hall is designated as a Conservation Area and includes a Historic Parks and Gardens designation associated with the Hall's grounds and Church cemetery. These areas are particularly sensitive and will require an appropriate planning and design response.
- Stebbing also has a designated Conservation Area and several listed buildings that would be

sensitive to development. In addition, there are a number of isolated farmhouses and farm buildings both within the site and in the surrounding area that are listed which would be sensitive. There is also known to be a Roman Villa in the area of Boxted Wood and potential earthworks within the Ancient Woodland.

3.3.14 Minerals and Waste

- The site includes land allocated for minerals development within the adopted Minerals Local Plan (MLP). The Broadfield Farm site to the west of Rayne is allocated for mineral extraction in the Essex Minerals Plan and is subject to a planning application. It is acknowledged that the planning context for the mineral extraction site is changing with the allocation of the Garden Community in the submitted Braintree Local Plan and Uttlesford Draft Local Plan (Regulation 18).
- There are therefore implications regarding the allocated minerals extraction site within the broad location associated with the site, which has some additional issues surrounding intended restoration within the Minerals Local Plan and an accompanying Minerals Site Restoration for Biodiversity SPG. This land, in the south east portion of the site, is also identified as a flagship restoration scheme; as a result, measures already exist to increase biodiversity on the site.
- The majority of local authority collected household waste is sent for recycling, composting or reuse in the Plan Area. Despite this, no non-household local authority collected waste is recycled, composted or re-used.
- Households within Uttlesford District Council produce 136.89kg per household less waste than the county average, and a larger percentage of this waste is recycled re-used or composted (55.53%), than the Essex average.

3.3.15 Utilities

- All the electrical networks west of Braintree are 11kV rural supplies, consisting mainly of overhead lines. These would have limited capacity to supply new development and overhead lines are inherently less reliable than underground cables, as they are more susceptible to storm damage.
- There is capacity in the medium pressure gas network in the region, but local low pressure upgrades will be required.
- Anglian Water has stated that the site is forecast to be in a deficit state by 2040. One of the main measures to mitigate the forecasted deficit will be to increase the transfer from neighbouring areas that benefit from a supply surplus. Unfortunately however, there is little spare capacity at either the Rayne or the Braintree waste water treatment plants, and waste water will need to be pumped to Bocking waste water treatment plant. This would only provide a short term solution, and in the medium term a new waste water treatment plant would have to be provided within the new settlement area. This could be challenging because existing water courses are too small and ecologically sensitive to accept the final discharge of treated sewage effluent, so any effluent which is not used locally would still have to be pumped to Bocking.
- Current broadband provision in the settlement area is poor, largely due to the distance from the site to the closest BT exchanges which are located at Stebbing and Braintree. Consequently,

internet performance within the site is far lower than surrounding settlements.

3.3.16 Existing Communities

- There are limited numbers of existing residential properties in the Garden Community area, however the small settlement of Blake End exists to the south west of the site and is located adjacent to a junction corresponding to possible access to the broad area from the B1256.
- Assimilation of Blake End is not assumed, in so far as a required belt of surrounding countryside would act as a buffer, however there may be transport implications and perceived loss of amenity in that regard.
- To the north, the site extends towards Great Saling, however the presence of a Registered Park and Garden separates any possible coalescence should this feature be preserved within proposals.
- A small number of detached residential and commercial properties (including at Andrewsfield), mostly associated with farming exist within the site.
- Due to the nature and scale of Garden Communities, few local facilities exist within the site currently.

3.3.17 Trans-national Implications

This Scoping & Environmental Report explores the state of the environment within the broad area of the Plan; however consideration has since been given to the possibility of trans-national impacts resulting from the scale of growth and those broad locations identified for development.

In view of this, no trans-national effects are deemed likely as a result of the Plan singularly or in combination with the relevant Local Plans of Braintree and Uttlesford or any other plans and programmes. This is as result of the Section One Habitats Regulation Assessment Screening Assessment and associated Appropriate Assessment (AA) (2017) which explores the environmental impacts of the principle of the Garden Community on international and national designations for nature conservation. The AA identifies that although impacts arise as a result of the level of growth resulting from Garden Communities due to recreation, effective mitigation is possible.

3.3.18 Data Limitations

Relevant information is not available for the focused Garden Community area on a particularly detailed basis on all sustainability themes. As a result there are some gaps within the data set. It is believed however that the available information shows a comprehensive view on sustainability within the Garden Community area. New data that becomes available will be incorporated in the SA.

It should be noted that while the baseline will be continually updated throughout the SA process, the information outlined within this report represents a snapshot of the information available at the beginning of November 2017.

3.4 Key Sustainability Issues and Problems and Sustainability Objectives (Stage A3)

The outcome of Stages A1 – A2 in the SA Process is the identification of key sustainability issues and problems facing the Strategic Area which assist in the finalisation of a set of relevant Sustainability Objectives. Issues are also identified from the review of plans and programmes and a strategic analysis of the baseline information.

The appraisal of the Plan will be able to evaluate, in a clear and consistent manner, the nature and degree of impact and whether significant effects are likely to emerge from the Plan's content.

The following table outlines the thought process which has led to the formulation of the Sustainability Objectives for the Plan. The state of the environment in absence of the Plan is derived from the Baseline Information addressed in Annex B accompanying this report, the remit of the Plan in the wider planning policy context, and the wider benefits that can be expected of growth at the scale proposed in accordance with Garden City principles and the North Essex Garden Community Charter.

Table 2: Key Sustainability Issues and Problems

General theme	Description / Supporting Evidence	State of environment in absence of the plan	Sustainability Objective (SO)
Economy	Due to its rural nature the site does not currently accommodate any notable retail uses. It is however located approximately 5km to the west of Braintree Town Centre and 6km to the west of the regional shopping and leisure attraction of Braintree Freeport	Despite emerging policy in regard to ensuring services and facilities are integrated into the Garden Community existing in the form of the Strategic Section One for Braintree's Local Plan and the emerging Uttlesford Local Plan, the Plan can ensure that sufficient retail and employment premises are integrated into any new community through an effective framework regarding the eventual form of the development. The Plan can ensure that provision can be planned to complement, rather than displace, existing local service provision in the town of Braintree. This may not be the case in the absence of the Plan.	To ensure that new retail space is suitably provided and located within the Garden Community, with no subsequent harm to the retail function of Braintree town centre.
	There are significant economic 'anchors' in the wider vicinity (some of which are significant employers of local residents), the area has not yet been able to realise the full benefit from them.		To ensure that new employment complimentary uses are suitably provided and located within the Garden Community.

General theme	Description / Supporting Evidence	State of environment in absence of the plan	Sustainability Objective (SO)
	The site is close to the established employment centre of Braintree which has seen steady growth in recent years and unemployment in the area is low with a high rate of economic activity. The site has good access to London Stansted Airport. The continued growth in the airport's operations means that the airport itself increasingly acts as a hub which attracts a range of high level economic activities, particularly in knowledge-based sectors.	The growth of London Stansted Airport will also provide an opportunity for the Garden Community to capture future associated employment growth. Utilising the existing strengths of existing employment providers and centres is a key opportunity for the Garden Community. The Plan can provide this opportunity, which perhaps could not be expected to be realised through alternative development approaches.	To maximise existing linkages and strengths in the local economy.
	Jobs linked to homeworking will be physically associated with the homes of residents and therefore also on site; in relation to these jobs, the design of housing will be crucially important (The North Essex Garden Communities Employment & Demographic Studies (SQW / Cambridge Econometrics 2017)).	The planning of the Garden Community provides a unique opportunity to deliver truly innovative forms of emerging utility-related technologies, including but not limited to state of the art telecommunications infrastructure which could provide an ultra-fast broadband service for existing and future residents. This could otherwise not be forthcoming within the Garden Community in the absence of the Plan.	To ensure the design of new development is capable of maximising innovative forms of emerging utility-related technologies.
Health	Access to natural greenspace (ANGSt) is an issue within the wider areas of Braintree and Uttlesford. As much as 54% of households within Uttlesford do not have any access to natural greenspace.	The Plan has the opportunity to suitably include accessible natural green space throughout the design and layout of the Garden Community. This might not be the case in the absence of a plan-led approach, or otherwise not be given due weight in favour of marketable land uses.	To ensure sufficient accessible natural green space throughout the Garden Community to benefit the new community and the surrounding rural areas.
	There are 5 GP surgeries within Braintree, representing those that are the closest to the Garden Community area. Of these, only 2	In facilitating inclusive facilities, the Plan can ensure that a new Garden Community can incorporate premises for a local centre, including doctors'	To ensure that a range of services and facilities are included and

General theme	Description / Supporting Evidence	State of environment in absence of the plan	Sustainability Objective (SO)
	are accepting new patients (NHS).	surgeries and sports provision. In the absence of the Plan it can not be certain whether this would be forthcoming through more traditional delivery models and a possible lack of liaison with service providers.	suitably located within the Garden Community to maximise social inclusivity and to ensure sustainable land use patterns that maximise accessibility between jobs, homes, services and facilities.
	The proportion of adults participating in 30 minutes, moderate intensity sport has decreased in recent surveys at local, sub-national and national levels.		
Housing	Uttlesford District has a high level of housing stock in private ownership at 84%. House prices are also significantly higher than the County average.	The Plan is committed to ensuring varied housing tenures, ensuring affordability and ownership models. This can not be considered as forthcoming through development that is not plan-led, where it is likely that outcomes are sought that are most profitable.	To ensure a mix of housing types and tenures with as high a proportion of affordable units as possible.
	As life expectancy increases, the age structure is expected to change, with a marked increase in the number and proportion of the population who will be aged 65 and over. The number of one-person households is also expected to increase.		
	The SHMA for Braintree, Colchester, Chelmsford and Tendring Councils indicates that the majority of market housing and affordable housing should be 2 and 3 bedroom properties. This trend is replicated when assessing all housing, with 70.3% of housing need across the Districts and Boroughs is 2 and 3 bedroom dwellings.	A plan-led Garden Community can enable large scale development that is sustainable. The scale of development, established within the Strategic Section One of Braintree's Local Plan policies and similarly established in the emerging Uttlesford Local Plan, ensures that a larger amount of affordable units can be delivered without affecting viability. Whereas a higher percentage can not be ensured through the Plan, instead being subject to exploration within the Local Plans the Plan can ensure that affordable units are appropriately	
	In Uttlesford, there is an annual		

General theme	Description / Supporting Evidence	State of environment in absence of the plan	Sustainability Objective (SO)
	average need of 127 affordable units. The majority of affordable housing needs have been identified as units with 2-3 bedrooms.	located within the development. This can be considered comparatively unlikely to be forthcoming without a plan led approach.	
	Suitable Gypsy and Traveller accommodation proposals have not been forthcoming through the Local Plan call-for-sites mechanisms of Braintree and Uttlesford District Councils.	The Section One of Braintree's Local Plan includes Policy SP10 which ensures that Garden Community in this location would require accommodation provision of Gypsy and Travellers. The West of Braintree Garden Community Plan can ensure that such provision is located with the interests of the envisaged new community in mind.	To ensure that provision for Gypsy and Traveller accommodation is appropriately located within the Garden Community with regard to access to services and social integration.
Biodiversity	There are a number of important areas of deciduous woodland, which is a priority habitat, scattered across the site. Of particular importance are the significant areas of ancient woodland, including the 19ha of Boxted Wood as well as that found at Golden Grove and Rumley Wood.	A plan-led approach to strategic development can ensure that existing features of biodiversity are protected and integrated into the Garden Community's green infrastructure. Comparatively, this is unlikely to be the case through more traditional strategic development approaches.	To protect and enhance existing features of biodiversity through green corridors and ensure links between new habitats within the Garden Community and those that exist over a wider area.
	There are two local wildlife sites on site.		
	There is an area of good quality semi-improved grassland and priority mixed habitat around Stebbing Green.		
	As identified within the HRA / AA of the Strategic Section One (and Two) of Braintree's emerging Local Plan, a Recreational Avoidance and Mitigation Strategy will be	The relationship between areas of biodiversity interest and human activity through recreation are often incompatible in terms of wildlife conservation. A plan led approach can	To ensure that recreational activity does not have negative effects on wildlife conservation

General theme	Description / Supporting Evidence	State of environment in absence of the plan	Sustainability Objective (SO)
	<p>needed to ensure that the level of growth does not have likely significant effects on Natura 2000 sites within the wider area.</p> <p>There may be implications regarding recreational use at Epping Forest SAC (Natura 2000 site) pending the findings of a commissioned HRA for Uttlesford's emerging Local Plan</p>	ensure that such management and the identification of land for recreational purposes is ensured.	and protection in the wider area.
Landscape	There are a number of mature woodlands on site, including Boxted Wood.	A plan-led Garden Community can ensure that sensitive natural features are integrated, protected and enhanced through a framework approach to design and layout. This is not unique to Garden Communities and can be expected to be ensured through more traditional approaches to development.	To ensure the protection, enhancement and creation of features of a landscape value throughout the Garden Community.
	Protected lanes have significant historic and landscape values. 'Pods Lane' is a designated Protected Lane which, as a heritage asset, would likely need to be integrated into any new Garden Community.		
	The land within the site forms an open farmland plateau with a gently sloping topography to the south. This topography means that there are long distance views into the site from the surrounding rural areas.	A plan-led Garden Community can ensure that sensitive natural features are integrated, protected and enhanced through a framework approach to design and layout. This is not unique to Garden Communities and can be expected to be ensured through more traditional approaches to development.	To ensure that the Garden Community is integrated into the existing rural landscape.
	There are a number of sensitive receptors associated with the surrounding area and large scale development has the potential to impact on the rural character of the small settlements surrounding the site.	A plan-led Garden Community, adhering to Garden City principles and the Garden Community Charter, can ensure better integration of development within the open countryside. This would otherwise be unlikely to be the case through more traditional development	

General theme	Description / Supporting Evidence	State of environment in absence of the plan	Sustainability Objective (SO)
		approaches.	
Soil quality	The vast majority of the land is in agricultural use (mostly Grade 2 Agricultural Land).	The loss of agricultural land is inevitable through any strategic scale development. In the absence of the Plan, it can be considered that there would be a similar loss of such land.	To minimise the loss of the best and most versatile agricultural land.
Education and skills	In Braintree District, the level of demand for secondary school places in Year 7 is predicted to rise over the course of the next 5 years.	A plan led approach enables an 'infrastructure first' approach to delivering the Garden Community, through effective working with the commissioning authority. It is more likely that a less holistic approach to ensuring adequate school capacity would be forthcoming in the absence of the Plan.	To ensure the delivery of new schools and other infrastructure to support the Garden Community.
	Forecasts show a deficit of some 400 places for primary schools and only a very small surplus of secondary school places across the district of Uttlesford.		
Energy consumption	Braintree District consumes more energy from non-renewable sources as a percentage of their consumption compared to the East of England as a whole. More than three quarters of Braintree District's 3,019.1GWh respective energy consumption is from petroleum products and natural gas.	The Garden Community offers a significant opportunity for the utilisation of renewable energy sources to be utilised. The Plan can ensure that renewable energy generation and energy efficiency measures are included within the development that would otherwise be unlikely to be integrated in its absence.	To embrace sustainable forms of energy production and distribution.
	More than half Uttlesford's 2,808.9GWh energy consumption is from petroleum products which are a result of transport, domestic and commercial industries (66.20%). In contrast only 15.9GWh of energy consumed is from bioenergy and waste products.		

General theme	Description / Supporting Evidence	State of environment in absence of the plan	Sustainability Objective (SO)
Transport and Access	The site does not benefit from an existing rail link. Access arrangements to strategic roads are not direct, however the close proximity of the broad area to the A120 ensures that sustainable access can be ensured.	A plan-led approach, together with the delivery model of the Garden Community, can ensure that effective links can be made to rail services within the wider area. It is unlikely that this would be ensured through any planning application without such a requirement either physically or through sufficient contributions.	To maximise sustainable transport modes on site, minimise vehicle emissions and to ensure effective links to existing off-site public transport services and interchanges.
	Across the wider area, the strategic road and rail network is heavily used, particularly given the proximity to and connectivity with London.	It is considered that the Plan can ensure an appropriate level of services and facilities on-site. This can ensure that residents take fewer trips outside the Garden Community for convenience shopping and day to day needs. This can offset traffic implications on existing roads as much as possible. It is thought that without this requirement established within the Plan, planning applications are unlikely to ensure provision to the same level.	To ensure that a range of services and facilities are included and suitably located within the Garden Community to maximise social inclusivity and to ensure safe, sustainable land use patterns that maximise accessibility between jobs, homes, services and facilities.
	Currently it is forecast that numerous junctions in and around Braintree will be overcapacity by 2032 if no improvements to the A120 between Braintree and Marks Tey take place. This is particularly important because the lack of existing road infrastructure to the north of the site results in dependency on access from the south, putting pressure on A120, its junctions and the town centre	It is considered that this key issue regarding the site is one that is commensurate to current conditions coupled with the level of growth. As such, there is unlikely to be any change in conditions in the absence of the Plan.	To ensure suitable access to and within the site and appropriate linkages to the existing road network that improves current conditions as far as possible.

General theme	Description / Supporting Evidence	State of environment in absence of the plan	Sustainability Objective (SO)
	route via the B1256.		
	There are potential capacity issues to the west of the site along the B1256 towards Great Dunmow and its connection to the A120 as well as the A120 westwards and further afield to Junction 8 of the M11. Without intervention there may also be issues with traffic impacts on Felsted to the south of the site, possibly as a result of a lack of an all-movements junction with the A120 in the vicinity of the site.		
	Uttlesford District has a higher proportion of residents driving to work by either car or van (46.34%) when compared to regional and national levels. 90.4% of households in Uttlesford own at least one vehicle, a far higher percentage than for the East of England (82.3%) and for England and Wales (73.9%). The highest percentage of residents own 2 cars or vans whereas in both the East of England and England and Wales the majority of the population own 1 car or van. Braintree has a lower proportion of households owning 1 or more car at 40.3%.	The Plan can ensure a level of car parking, and design in such parking, that is suitable for the number of homes. The requirements are unlikely to be clear and specifically suitable to the wider design requirements of the Garden Community in the absence of the Plan.	To ensure an appropriate level of car parking.
Sustainable Transport	Just 59.9% of residents in Braintree remain in the District for their work. The work destination attracting the highest proportion of Uttlesford residents was the City of London (10.9%).	A plan-led approach, together with the delivery model of the Garden Community, can ensure that effective links can be made to rail services within the wider area. It is unlikely that this would be ensured through any planning	To maximise sustainable transport modes on site and to ensure effective links to existing off-site

General theme	Description / Supporting Evidence	State of environment in absence of the plan	Sustainability Objective (SO)
	<p>Braintree railway station lies to the east, approximately 5km from the centre of the site, providing access to the Braintree-Witham branch line which provides limited connectivity (one train per hour) to the Great Eastern Mainline. Parking at Braintree railway station is limited to approximately 160 spaces, whilst at Braintree Freeport, parking is limited to a duration of 6hrs which limits its use for commuters.</p> <p>A limited existing bus network exists in close proximity to the site, currently setting down south of the site on the B1256 and providing an infrequent service to Chelmsford. A greater volume of buses currently serve Braintree town centre, however due to their current route pattern and the distance between the site and the town, accessibility by bus is poor.</p>	application without such a requirement either physically or through sufficient contributions.	public transport services and interchanges.
Water	<p>Both the Pods Brook and River Ter are already failing to meet the Water Framework Directive target of good ecological status and are considered to be at risk of further deterioration in water quality.</p> <p>The site is situated within a Drinking Water Safeguarding Zone and surface and groundwater nitrate vulnerability zones.</p> <p>Water management is challenging given the combination of development growth and Essex</p>	As stated in the Plan, substantial investment in this essential area of infrastructure will be required to facilitate the improvements needed and ensure adequate ongoing maintenance. It is uncertain whether this infrastructure would be forthcoming from development proposals in the absence of the Plan.	To ensure that there is no deterioration in water quality as a result of development.

General theme	Description / Supporting Evidence	State of environment in absence of the plan	Sustainability Objective (SO)
	being one of the driest counties in England. In respect of water quantity a significant portion of the resource is considered to be 'water stressed'.		
Flood Risk	Areas of Flood Risk Zone 3 exist within the site boundaries to the east, associated with Pods Brook. Additionally, similar areas of Flood Risk Zone 3 exist in the south central parts of the site associated with the River Ter.	In the absence of the Plan there is unlikely to be any significant difference in how areas of flood risk are considered within the Garden Community. That said, the design and layout of the Garden Community can ensure that existing water courses are maximised as features of a blue infrastructure interest throughout the site.	To ensure that there is no increase in fluvial flood risk as a result of development.
	The underlying London Clay and clay soils that can impede the rate of infiltration may limit the use of infiltration sustainable urban drainage systems on the site.	The delivery of the Garden Community will provide an opportunity to provide this level of investment and also provide an unprecedented opportunity to integrate innovative sustainable urban drainage systems into the design of new development. It is unlikely that this would be the case to the same degree through development proposals in the absence of the Plan.	To ensure that the use of sustainable drainage systems are maximised throughout the development, with positive outcomes sought in regards to biodiversity gain and blue infrastructure networks.
The Historic Environment	There are a number of Grade II listed buildings and two Grade II* listed buildings within the site, predominately associated with historic farmsteads. The value of these farmsteads is not only in their built structures but also in their rural settings.	In the absence of the Plan, such features would have to be protected through suitable schemes both in regard to designations and their settings. The Plan can further ensure that enhancements to assets are sought where possible. The Plan states that 'there are opportunities to accommodate listed buildings into Garden Community in a manner which responds to the special characteristics and features of their listing. This could include using complementary designs in their vicinity	To protect, and where possible, enhance designated and non-designated heritage assets and their settings both above and below ground.
	The area around Great Saling Hall is designated as a Conservation Area and includes a Historic Parks and Gardens designation		

General theme	Description / Supporting Evidence	State of environment in absence of the plan	Sustainability Objective (SO)
	<p>associated with the Hall's grounds and Church cemetery.</p> <p>Stebbing also has a designated Conservation Area and several listed buildings that would be sensitive to development. In addition, there are a number of isolated farmhouses and farm buildings both within the site and in the surrounding area that are listed which would be sensitive.</p> <p>There is also known to be a Roman Villa in the area of Boxted Wood and potential earthworks within the Ancient Woodland.</p>	<p>or suitable amounts of buffer space to provide an organic and seamless townscape.'</p> <p>The Plan states that, 'Great Saling Hall's Conservation Area and its Historic Parks and Gardens status warrants special attention and the planning of the areas around this important heritage asset could provide an opportunity to enhance its significance and raise its profile as a local attraction.'</p>	
Minerals and Waste	<p>The Garden Community site includes land allocated for minerals development within the adopted Minerals Local Plan (MLP). The Broadfield Farm site to the west of Rayne is allocated for mineral extraction in the Essex Minerals Plan and is subject to a planning application. It is acknowledged that the planning context for the mineral extraction site is changing with the allocation of the Garden Community in the submitted Braintree Local Plan and Uttlesford Draft Local Plan (Regulation 18).</p> <p>The site is also within a Mineral Safeguarding Area and will require a Mineral Resource Assessment to be undertaken.</p> <p>Restoration of the quarry within the Minerals Local Plan (and an accompanying Minerals Site</p>	<p>Within the site, the presence of an allocated mineral site (within the ECC Minerals Local Plan) presents an opportunity to ensure an after-use to residential and other development, in turn offering the potential to better connect the site to the new and existing communities. Any future green infrastructure networks on site could be linked in to the wider environment improving the ecological and recreational value over an isolated scheme. In the absence of a planning policy context for this, and a plan-led approach to the Garden Community, planning applications would likely be comparably more difficult to be compatible with the existing policy context of the Minerals Local Plan, which identifies a flagship biodiversity restoration scheme for the quarry post-extraction. This would likely lead to less positive design and connectivity outcomes from any eventual Garden</p>	<p>To protect and enhance existing features of biodiversity through green corridors and ensure links between new habitats within the Garden Community and those that exist over a wider area.</p>

General theme	Description / Supporting Evidence	State of environment in absence of the plan	Sustainability Objective (SO)
	Restoration for Biodiversity SPG) is identified as a flagship restoration scheme.	Community due to the future quarry's location within the site.	
Utilities	All the electrical networks west of Braintree are 11kV rural supplies, consisting mainly of overhead lines. These would have limited capacity to supply new development and overhead lines are inherently less reliable than underground cables, as they are more susceptible to storm damage.	The development of a new Garden Community provides significant opportunities to not only provide new infrastructure but also the opportunity to deliver innovative forms of infrastructure and ensure their integration from the outset, reducing and avoiding the need for disruptive retrofitting which could otherwise be the case in the absence of the Plan.	To embrace sustainable forms of energy production and distribution.
	There is capacity in the medium pressure gas network in the region, but local low pressure upgrades will be required.		
	There is little spare capacity at either the Rayne or the Braintree waste water treatment plants, and waste water will need to be pumped to Bocking waste water treatment plant. This would only provide a short term solution, and in the medium term a new waste water treatment plant would have to be provided within the new settlement area.	The creation of a new settlement offers an opportunity to design these improvements in such a way as to make them as efficient (in terms of operation and maintenance) and as complementary to surrounding land uses as possible. To ensure the success of this integration, strong collaboration with service providers will be required. This can be considered to be maximised through a plan-led approach, the absence of which would have less positive outcomes through the absence of such a framework regarding place making.	
	Current broadband provision in the settlement area is poor, largely due to the distance from the site to the closest BT exchanges which are located at Stebbing and Braintree. Consequently, internet performance within the site is far lower than surrounding settlements		
Existing	There are limited numbers of	The Plan states that, 'the proximity of	To improve areas

General theme	Description / Supporting Evidence	State of environment in absence of the plan	Sustainability Objective (SO)
communities	existing residential properties in the Garden Community area, however the small settlement of Blake End exists to the south west of the site and is located adjacent to a junction corresponding to possible access to the broad area from the B1256.	existing villages to the Garden Community opens up opportunities to improve areas between these existing settlements and new development. Existing private farmland, for example, could be opened up as publicly accessible parkland with new green links formed to improve walking and cycling connectivity in the area for both existing and future residents.' It can be considered comparably less likely that such a joined up approach to development would be forthcoming in the absence of the Plan and the reliance on Policy SP10 of the Section One of Braintree's Local Plan and Policy SP8 within the emerging Uttlesford District Council Local Plan.	between existing settlements and new development and to ensure that there is no coalescence with existing settlements.
	To the north, the site extends towards Great Saling,		
	A small number of detached residential and commercial properties (including at Andrewsfield), mostly associated with farming, exist within the site.		
	Due to the nature and scale of Garden Communities, few local facilities exist within the site currently.	Despite emerging policy in regard to ensuring services and facilities are integrated into the Garden Community existing in the form of the Strategic Section One for Braintree's Local Plan and the emerging Uttlesford Local Plan, the Plan can ensure that sufficient retail and employment premises are integrated into any new community through an effective framework regarding the eventual form of the development. The Plan can ensure that provision can need to be planned to complement, rather than displace, existing local service provision in the town of Braintree. This may not be the case in the absence of the Plan.	To ensure that a range of services and facilities are included and suitably located within the Garden Community to maximise social inclusivity.

The following table explores whether the identified Sustainability Objectives above fall into the three broad categories of sustainability, namely social, environmental and economic themes.

Table 3: The SA Objectives

SA Objective	Economic	Social	Environmental
1) To ensure that new employment and complimentary uses are suitably provided and located within the Garden Community.	✓		
2) To ensure that new retail space is suitably provided and located within the Garden Community, with no subsequent harm to the retail function of Braintree town centre.	✓		
3) To maximise existing linkages and strengths in the local economy.	✓		
4) To minimise the loss of the best and most versatile agricultural land.	✓		
5) To ensure sufficient accessible natural green space throughout the Garden Community to benefit the new community and the surrounding rural areas.		✓	
6) To improve areas between existing settlements and new development and to ensure that there is no coalescence with existing settlements.		✓	
7) To ensure that a range of services and facilities are included and suitably located within the Garden Community to maximise social inclusivity and to ensure safe, sustainable land use patterns that maximise accessibility between jobs, homes, services and facilities.		✓	
8) To ensure a mix of housing types and tenures with as high a proportion of affordable units as possible.		✓	
9) To ensure that provision for Gypsy and Traveller accommodation is appropriately located within the Garden Community with regard to access to services and social integration.		✓	
10) To ensure the delivery of new schools and other supporting infrastructure to support the Garden Community.		✓	
11) To maximise sustainable transport modes on site, minimise vehicle emissions and to ensure effective links to existing off-site public transport services and interchanges.		✓	
12) To ensure suitable access to and within the site and appropriate linkages to the existing road network that		✓	

SA Objective	Economic	Social	Environmental
improves current conditions as far as possible.			
13) To ensure an appropriate level of car parking.		✓	
14) To ensure the design of new development is capable of maximising innovative forms of emerging utility-related technologies.			✓
15) To protect and enhance existing features of biodiversity through green corridors and ensure links between new habitats within the Garden Community and those that exist over a wider area.			✓
16) To ensure that recreational activity does not have negative effects on wildlife conservation and protection in the wider area.			✓
17) To ensure the protection, enhancement and creation of features of a landscape value throughout the Garden Community.			✓
18) To ensure that the Garden Community is integrated into and does not harm the existing rural landscape.			✓
19) To embrace sustainable forms of energy production and distribution.			✓
20) To ensure that there is no deterioration in water quality as a result of development.			✓
21) To ensure that there is no increase in fluvial flood risk as a result of development.			✓
22) To ensure that the use of sustainable drainage systems are maximised throughout the development, with positive outcomes sought in regards to biodiversity gain and blue infrastructure networks.			✓
23) To protect, and where possible, enhance designated and non-designated heritage assets and their settings both above and below ground.			✓

3.4.1 The Compatibility of the SA Objectives

A total of 23 SA Objectives have been derived for the appraisal of the Plan. They are based on the scope of the document, policy advice and guidance and to the assessment of the current state of the environment.

It is useful to test the compatibility of SA Objectives against one another in order to highlight any areas where potential conflict or tensions may arise.

It is to be expected that some objectives are not compatible with other objectives thereby indicating that tensions could occur. Objectives which are based around environmental issues sometimes conflict with economic and social objectives, and vice versa.

Areas of potential incompatibility or uncertainty between the objectives relevant to the Plan are explained within the following bullet points:

- **Protecting soil quality and the majority of the economic and social based objectives:**
There can be expected to be unavoidable harm in regard to minimising the loss of the best and most versatile agricultural land with all other objectives relevant to build development within the Garden Community. The entire site is within Grade 2 Agricultural Land, which represents the best and most versatile agricultural land within both Braintree and Uttlesford Districts. It should be acknowledged however that the majority of Greenfield land within the Districts is comprised of this agricultural classification and the loss can not be considered significant in view of proportional loss.
- **Sustainable transport and the need to ensure road access and car parking:** The integration of sustainable transport modes and necessary infrastructure, and the promotion of their uptake, can be seen as potentially incompatible with the needs of ensuring appropriate linkages to the existing road network. Similarly, the impacts of poorly designed and insufficient car parking can be significant negative from both design and safety aspects. Although truly sustainable outcomes can be seen to correspond to a modal shift to sustainable transport methods, notions of inclusivity determine that safe and efficient road access need to also be ensured to reflect the baseline of car ownership and the reality that sustainable transport modes can not be considered suitable for all demographics. An effective balance of private and public transport accessibility should be considered the most realistic outcome for the Garden Community.
- **Landscape based objectives with those associated with recreation and wildlife conservation / enhancement:** Although similar in form, it must be noted that the inclusion of recreational land should largely be provided in isolation from those areas that have been identified as contributing to green infrastructure. Similarly, land for purely landscape purposes should be managed in a way that offers either recreational or biodiversity value. The impacts of recreational activity on biodiversity and wildlife conservation can be significantly damaging to habitats.

3.5 The Approach to Assessing the West of Braintree Garden Community Plan

3.5.1 Introduction

As previously set out, the Plan includes specific proposals, strategies and detailed policies to inform the delivery of the West of Braintree Garden Community. The final Plan will provide certainty for stakeholders on the type, scale and location of specific land uses including the infrastructure required to accommodate them.

The SA, in line with the scope of the Plan, is required to assess the impacts of the Plan's content. For this purpose, and as required of SA, a broad sustainability framework relevant to the geographical scope of the Garden Community has been devised. The sustainability framework takes the Sustainability Objectives identified previously in this report as a starting point, and elaborates on each objective in turn with a series of criteria or 'key questions' to aid the assessment of the Plan's content in more detail.

3.5.2 The Sustainability Framework for Assessing Options

The following sustainability framework forms the basis of the methods used to evaluate the effects of the Plan. Quantitative analysis is used where available; however a number of assumptions are required in order to make qualitative and comparable judgements to assess options to the same level of detail. It is important that a level playing field is ensured for the assessment of options, with the same level of information being used to assess all options. Assumptions are set out in the relevant sections of this SA in which specific elements of the Plan are appraised.

Table 4: Sustainability Framework for Assessing the Plan

SA Objective	SA Criteria	Potential Indicators
1) To ensure that new employment and complimentary uses are suitably provided and located within the Garden Community.	<ul style="list-style-type: none"> - Will it ensure the delivery of a range of employment opportunities to support the Community? - Will it tackle employment associated deprivation? - Does it seek to improve existing training and learning facilities and/or create more facilities? - Will the employment opportunities available be mixed to suit a varied employment skills base? 	<ul style="list-style-type: none"> - Amount of floor space developed for employment, sqm - Level 2 qualifications by working age residents. - Level 4 qualifications and above by working age residents. - Employment status of residents. - Average gross weekly earnings. - Standard Occupational Classification.
2) To ensure that new retail space is suitably provided and located within the	<ul style="list-style-type: none"> - Does it seek to include a suitable level of convenience shopping? 	<ul style="list-style-type: none"> - Footfalls in Braintree town centre - Traffic flows

SA Objective	SA Criteria	Potential Indicators
Garden Community, with no subsequent harm to the retail function of Braintree town centre.	<ul style="list-style-type: none"> - Does it promote and enhance the viability of existing centres? - Does it seek to locate development within easy public travelling distance to town centres? - Does it seek to improve public transport networks to town centres? 	
3) To maximise existing linkages and strengths in the local economy.	<ul style="list-style-type: none"> - Will it support business innovation, diversification, entrepreneurship and changing economies? - Will it provide complimentary employment to existing major employment areas? 	<ul style="list-style-type: none"> - Type and amount of employment uses delivered
4) To minimise the loss of the best and most versatile agricultural land.	<ul style="list-style-type: none"> - Will it seek to locate development in areas of lower soil quality or not in farming use? - Will it ensure that soil quality is not compromised? - Will it support or lead to the remediation of contaminated land, avoiding environmental pollution or exposure of occupiers or neighbouring land uses to unacceptable health risk? 	<ul style="list-style-type: none"> - Loss of Grade 2 ALC (Ha). - Contaminated land brought back into beneficial use, hectares
5) To ensure sufficient accessible natural green space throughout the Garden Community to benefit the new community and the surrounding rural areas.	<ul style="list-style-type: none"> - Does it ensure that new green and open space provision is accessible to all? 	<ul style="list-style-type: none"> - Walking distances to natural greenspace over 800m
6) To improve areas between existing settlements and new development and to ensure that there is no coalescence with existing	<ul style="list-style-type: none"> - Will landscapes and features sensitive to development be protected? - Will it lead to coalescence with neighbouring settlements? 	<ul style="list-style-type: none"> - Loss of landscape features - Number of proposals permitted contrary to a desire to restrict coalescence

SA Objective	SA Criteria	Potential Indicators
settlements.		
7) To ensure that a range of services and facilities are included and suitably located within the Garden Community to maximise social inclusivity and to ensure safe, sustainable land use patterns that maximise accessibility between jobs, homes, services and facilities.	<ul style="list-style-type: none"> - Does it ensure a high quality and safe public realm? - Does it seek to preserve PRoWs and bridleways? - Does it seek to promote active modes? - Will services and facilities be located in strategic locations within the Garden Community? - Will it provide a mix of leisure and sports pitch provision? - Does it seek to provide facilities for young people? 	<ul style="list-style-type: none"> - New leisure and sports provision (Sqm) - Loss of bridleways / PRoWs - Traffic flows within the Garden Community
8) To ensure a mix of housing types and tenures with as high a proportion of affordable units as possible.	<ul style="list-style-type: none"> - Does it seek to provide housing for an ageing population? - Does it ensure a proportion of housing for social rent? - Does it seek to ensure a mix of dwelling types? - Does it seek to include a mix of dwelling sizes? - Does it seek to provide as high a proportion of affordable units as possible / viable? 	<ul style="list-style-type: none"> - Number of lifetime homes - Number of homes for social rent - Number of affordable units - Housing mix - Housing size (bedrooms)
9) To ensure that provision for Gypsy and Traveller accommodation is appropriately located within the Garden Community with regard to access to services and social integration.	<ul style="list-style-type: none"> - Does it seek to provide Gypsy and Traveller pitches? - Are Gypsy and Traveller pitches located within easy access of services and facilities? 	<ul style="list-style-type: none"> - Caravan counts on site - Amount of pitch provision
10) To ensure the delivery of new schools and other supporting infrastructure to support the Garden	<ul style="list-style-type: none"> - Will it ensure adequate school places (through expansion / new facilities) and early years provision to support growth? 	<ul style="list-style-type: none"> - Percentage of new residential development within 30 minutes of public transport time of a GP, hospital, primary and secondary

SA Objective	SA Criteria	Potential Indicators
Community.	<ul style="list-style-type: none"> - Will it ensure the required improvements to utilities infrastructure? - Will it ensure the required improvements in capacity to GP services? 	<ul style="list-style-type: none"> - school, employment and a major retail centre - Additional capacity of local schools / incidents of new school applications
11) To maximise sustainable transport modes on site and to ensure effective links to existing off-site public transport services and interchanges.	<ul style="list-style-type: none"> - Will it increase and/or improve the availability and usability of sustainable transport modes? - Will it seek to encourage people to use alternative modes of transportation other than private vehicle? - Will it lead to the integration of transport modes? - Will it improve rural public transport? - Does it seek to increase the uptake or viability of walking and cycling as methods of transportation, through new infrastructure or integration? - Will it improve, or not detrimentally affect air quality along the A120? - Does it direct growth away from AQMAs? - Does it seek to improve or avoid increasing traffic flows generally? 	<ul style="list-style-type: none"> - Percentage of journeys to work by walking and cycling and percentage of journeys to work by public transport - Traffic flows
12) To ensure suitable access to and within the site and appropriate linkages to the existing road network that improves current conditions as far as possible.	<ul style="list-style-type: none"> - Will it contribute positively to reduce social exclusion by ensuring access to jobs, shopping, services and leisure facilities for all? - Does it seek to concentrate development and facilities where access via sustainable travel is greatest? - Does it seek to minimise congestion at key destinations / areas that witness a large amount of vehicle movements at peak times? - Would the scale of development 	<ul style="list-style-type: none"> - Number / amount of new homes / employment development completed at ward level within Growth / Regeneration Areas - Percentage of new development within 30 minutes of community facilities (as defined by each authority)

SA Objective	SA Criteria	Potential Indicators
	require significant supporting transport infrastructure? - Will it provide a suitable amount of sports, recreational, leisure and open space facilities?	
13) To ensure an appropriate level of car parking.	- Does it seek to provide an appropriate level of car parking? - Are parking spaces of a suitable size? - Are the locations of parking spaces suitable?	- Parking violations - Number of parking spaces per dwelling approved.
14) To ensure the design of new development is capable of maximising innovative forms of emerging utility-related technologies.	- Does it ensure energy efficiency measures? - Does it seek to reduce building emissions? - Does it seek to integrate renewable sources of energy?	- Code for Sustainable Homes certificates - Energy consumption per dwelling - Percentage of energy consumption from renewable sources
15) To protect and enhance existing features of biodiversity through green corridors and ensure links between new habitats within the Garden Community and those that exist over a wider area.	- Will development have a potential impact on a national, international or European designated site (SPA, SAC, Ramsar, SSSI)? - Will it maintain and enhance sites otherwise designated for their nature conservation interest, such as LoWSs? - Will it conserve and enhance natural/semi natural habitats? - Will it conserve and enhance species diversity, and in particular avoid harm to indigenous BAP priority species?	- Impacts (direct and indirect) on designated sites - Amount of development in designated areas - Area of land offset for biodiversity
16) To ensure that recreational activity does not have negative effects on wildlife conservation and protection in the wider area.	- Will recreational spaces be carefully managed and promoted? - Will habitats be suitably protected and enhanced, either physically or through careful management?	- Journeys to Natura 2000 sites for recreational uses - Condition of habitats on site
17) To ensure the	- Does it seek to create new landscape	- Loss of TPOs

SA Objective	SA Criteria	Potential Indicators
protection, enhancement and creation of features of a landscape value throughout the Garden Community.	features on site? - Does it seek to include public art and a high quality public realm? - Does it seek to protect and enhance existing on-site features of a landscape value?	
18) To ensure that the Garden Community is integrated into and does not harm the existing rural landscape.	- Does it seek to utilise current conditions and character in the wider landscape? - Will existing features be utilised as part of landscape character of newly created areas?	- Presence of indigenous and non-indigenous species through ecological surveys and requirements at the planning application stage
19) To embrace sustainable forms of energy production and distribution.	- Will it reduce emissions of greenhouse gases by reducing energy consumption? - Will it lead to an increased generation of energy from renewable sources? - Will it encourage greater energy efficiency? - Will it improve the efficient use of natural resources, minimising waste and promoting recycling?	- Total CO2 emissions - Renewable Energy Installed by Type - Number of zero carbon homes delivered
20) To ensure that there is no deterioration in water quality as a result of development.	- Will it lead to no deterioration on the quality of water bodies? - Will water resources and sewerage capacity be able to accommodate growth?	- Quality of Rivers (number achieving ecological good status) - Number of planning permissions granted contrary to the advice of the Environment Agency on grounds of water quality
21) To ensure that there is no increase in fluvial flood risk as a result of development.	- Does it seek to avoid development in areas at risk of flooding (fluvial, coastal, surface water)? - Does it seek to avoid increasing flood risk (fluvial, surface water, groundwater) in areas away from initial development?	- Number of planning permissions granted contrary to the advice of the Environment Agency on flood defence grounds
22) To ensure that the use	- Does it promote the inclusion of	- Number of SuDS schemes

SA Objective	SA Criteria	Potential Indicators
of sustainable drainage systems are maximised throughout the development, with positive outcomes sought in regards to biodiversity gain and blue infrastructure networks.	Sustainable Drainage Systems (SuDS) in new developments and will their integration be viable?	approved by ECC
23) To protect, and where possible, enhance designated and non-designated heritage assets and their settings both above and below ground.	<ul style="list-style-type: none"> - Will it protect and enhance designations, features and areas of historical, archaeological and cultural value in both urban and rural areas? - Will it have a negative impact on the significance of a designated historic environment asset or its setting? - Does it seek to enhance the range and quality of the public realm and open spaces? - Does it encourage the use of high quality design principles to respect local character? - Will / can any perceived adverse impacts be reduced through adequate mitigation? 	<ul style="list-style-type: none"> - Percentage of new and converted dwellings on previously developed land - Number of listed buildings demolished, repaired or brought back to use, including locally listed buildings - New Conservation Area Appraisals adopted - Number of Listed Buildings, Scheduled Monuments, Conservation Areas, Registered Parks and Gardens (and percentage at risk) - Area of highly sensitive historic landscape characterisation type(s) which have been altered and their character eroded - Number of major development projects that enhance or detract from the significance of heritage assets or historic landscape character - Percentage of planning applications where archaeological investigations were required prior to approval or mitigation strategies developed or implemented

3.6 The Appraisal of the Plan's Content

The SA of the West of Braintree Garden Community Plan appraises the document's policies against the Sustainability Objectives (SOs) outlined in the above framework. The aim is to assess the sustainability effects of the document following implementation. The appraisal will look at the secondary, cumulative, synergistic, short, medium and long-term permanent and temporary effects in accordance with Annex 1 of the SEA Directive, as well as assess alternatives and suggest mitigation measures where appropriate. The findings will be accompanied by an appraisal matrix which will document the effects over time.

The content to be included within the table responds to those 'significant effects' of the policy or element of the Plan subject to appraisal. Appraisals will also look at the following:

- Temporal effects;
- Secondary, Cumulative and Synergistic effects;
- The appraisal of Alternatives; and
- Proposed mitigation measures / recommendations.

These, and 'significant effects' are further described in the following sub-sections.

3.6.1 Description of 'Significant Effects'

The strength of impacts can vary dependant on the relevance of the policy content to certain sustainability objectives or themes. Where the policies have been appraised against the Sustainability Objectives the basis for making judgements within the assessment is identified within the following key:

Possible impact	Basis for judgement
++	Strong prospect of there being significant positive impacts
+	Strong prospect of there being minor positive impacts
?	Possibility of either positive or negative impacts, or general uncertainty where there is a lack on current information (to be elaborated in commentary in each instance)
0	No impact
N/A	Not applicable to the scope or context of the appraised content
-	Strong prospect of there being minor negative impacts and mitigation would be possible / issues can be rectified
--	Strong prospect of there being significant negative impacts with mitigation unlikely to be possible (pending further investigation) / further work is needed to explore whether issues can be rectified

Commentary is also included to describe the significant effects of the policy on the sustainability objectives.

3.6.2 Description of ‘Temporal Effects’

The appraisal of the Plan’s content recognises that impacts may vary over time. Three time periods have been used to reflect this and are shown in the appraisal tables as S (short term), M (medium term) and L (long term). For the purpose of the policy elements of the Plan S, M and L depict:

(S) Short term: early stages of the plan period / development of the Garden Community.

(M) Medium Term: middle stages of the plan period / development of the Garden Community.

(L) Long term: latter stages of the plan period (2033) / development of the Garden Community and where relevant beyond.

3.6.3 Description of ‘Secondary, Cumulative and Synergistic Effects’

In addition to those effects that may arise indirectly (secondary effects), relationships between different elements of the Plan will be assessed in order to highlight any possible strengthening or weakening of impacts from their implementation together. Cumulative effects respond to impacts occurring directly from two different policies together, and synergistic effects are those that offer a strengthening or worsening of more than one policy that is greater than any individual impact. Additionally, any cumulative impacts with other plans or projects will be highlighted within the appraisal.

3.6.4 Description of ‘Alternatives Considered’

Planning Practice Guidance states that reasonable alternatives are the different realistic options considered by the plan-maker in developing the policies in its plan. They must be sufficiently distinct to highlight the different sustainability implications of each so that meaningful comparisons can be made. The alternatives must be realistic and deliverable.

At this current stage, it is envisaged that further alternatives will be identified and developed during further stages of the Plan and as a result of the (this) Issues and Options consultation. The SA process will refine what constitutes a reasonable alternative at each consultation stage, and assess reasonable alternatives as they emerge, with findings shared with the Local Planning Authorities ahead of Local plan committee meetings for consideration.

3.6.5 Description of ‘Proposed Mitigation Measures / Recommendations’

Negative or uncertain impacts may be highlighted within appraisals. As such, mitigation measures may be needed and these will be highlighted in this section for each policy where relevant. In addition to this, this section will also include any recommendations that are not directly linked to negative or uncertain impacts, but if incorporated may lead to sustainability improvements.

4. The Appraisal of the Plan's Vision and Principles

4.1 Introduction

The following sub-sections respond to an initial appraisal of each element of the Plan. This responds to an appraisal of each part of the document that could give rise to environmental, social or economic effects. In each sub-section, an appraisal of all identified reasonable alternatives, where they exist at this stage, has been included for transparency and robustness. The process behind the identification of each alternative has been included, citing the source of each alternative in each instance. The following elements of the Plan are subject to assessment in this Sustainability Appraisal:

- A Vision for the Garden Community
- Theme 1: Place and Integration;
- Theme 2: Community; and
- Theme 3: Delivery.

4.2 A Vision for the Garden Community

4.2.1 Context / Justification

A Vision for the West of Braintree Garden Community will provide a mandate for its future development and will be the golden thread running through the West of Braintree Garden Community Plan. It should be a shared Vision that governs all processes from design through to delivery of the development and future management of community assets.

It should create an identity for the new community where residents and business feel like they 'belong'. It should foster a collective sense of ownership and pride in the place where people will live, work and spend their leisure time.

The Vision for the Garden Community is as follows:

A Vision for the Garden Community

The West of Braintree Garden Community will be an exceptional place to live, to grow up, to work, to raise a family, to retire; to enjoy a rich and fulfilling life. It will be a beautiful Community with a strong sense of identity and belonging. It will be a Community which is a safe and secure place where residents, workers and visitors have a strong sense of wellbeing.

The Garden Community will combine the best of traditional Essex residential environments with the expectations of a 21st century lifestyle. It will have low-energy, high performance homes in a rich landscape setting with natural green space directly accessible to every home. It will be well served by sustainable transport modes within a network of streets, greenspaces, and Public Rights of Way that will connect its distinctive neighbourhoods to each other as well as with surrounding communities. The new development will be designed in a way which respects and enhances existing landscape and heritage assets.

The Garden Community will provide the educational and health infrastructure required to support its residents. It will be a healthy place, where walking and cycling to local destinations such as schools, convenience shops, play spaces and places of work, will be attractive and more convenient than driving. To support this, every new home will be within walking distance of local shops and other services that support daily life.

Good value, frequent, high-quality and reliable public transport will connect the new Community to existing settlements in Braintree and Uttlesford Districts including Braintree, Rayne and Stebbing, and further afield to other transport hubs including London Stansted Airport. Neighbourhoods will benefit from good links to the strategic road network, aligned to keep more through-traffic away from where people live but accessible to make journeys over a wide area as convenient as possible.

The timescale over which the Garden Community will grow and develop will offer the unique prospect of incorporating exciting new technological innovations within new developments, allowing it to respond to sociocultural changes and changing patterns of travel behaviour, thus ensuring its longevity and resilience.

The West of Braintree Garden Community will support the economic growth of the surrounding area and improve local opportunities to access a wide range of employment prospects. There will be a wide variety of jobs available to residents in businesses accommodated in modern buildings in its centre and outlying areas located close to strategic transport routes and benefit from proximity to London Stansted Airport. Support will be given to local small and medium enterprises to help promote entrepreneurship and embed local firms within the wider regional economy. A proportion of new housing should include homeworking facilities and all new homes should have a choice of travel modes, including high quality public transport to provide residents with the opportunity to seek employment in locations across the sub-region and beyond.

4.2.2 Significant and Temporal Effects

The following assessment explores whether the plan's Vision is broadly compatible with the Sustainability Objectives that have been specifically devised for the Garden Community area.

Table 5: Compatibility with the Sustainability Objectives: A Vision for the Garden Community

Sustainability Objectives (SO)		Is the Vision compatible with the Sustainability Objectives?
ECONOMIC OBJECTIVES	1) To ensure that new employment and complimentary uses are suitably provided and located within the Garden Community.	✓
	2) To ensure that new retail space is suitably provided and located within the Garden Community, with no subsequent harm to the retail function of Braintree town centre.	✓
	3) To maximise existing linkages and strengths in the local economy.	✓
	4) To minimise the loss of the best and most versatile agricultural land.	x
SOCIAL OBJECTIVES	5) To ensure sufficient accessible natural green space throughout the Garden Community to benefit the new community and the surrounding rural areas.	✓
	6) To improve areas between existing settlements and new development and to ensure that there is no coalescence with existing settlements.	?
	7) To ensure that a range of services and facilities are included and suitably located within the Garden Community to maximise social inclusivity and to ensure safe, sustainable land use patterns that maximise accessibility between jobs, homes, services and facilities.	✓
	8) To ensure a mix of housing types and tenures with as high a proportion of affordable units as possible.	✓
	9) To ensure that provision for Gypsy and Traveller accommodation is appropriately located within the Garden Community with regard to access to services and social integration.	?
	10) To ensure the delivery of new schools and other supporting infrastructure to support the Garden Community.	✓
	11) To maximise sustainable transport modes on site and to ensure effective links to existing off-site public transport services and interchanges.	✓

Sustainability Objectives (SO)		Is the Vision compatible with the Sustainability Objectives?
	12) To ensure suitable access to and within the site and appropriate linkages to the existing road network that improves current conditions as far as possible.	✓
	13) To ensure an appropriate level of car parking.	?
ENVIRONMENTAL OBJECTIVES	14) To ensure the design of new development is capable of maximising innovative forms of emerging utility-related technologies.	✓
	15) To protect and enhance existing features of biodiversity through green corridors and ensure links between new habitats within the Garden Community and those that exist over a wider area.	✓
	16) To ensure that recreational activity does not have negative effects on wildlife conservation and protection in the wider area.	✓
	17) To ensure the protection, enhancement and creation of features of a landscape value throughout the Garden Community.	✓
	18) To ensure that the Garden Community is integrated into and does not harm the existing rural landscape.	✓
	19) To embrace sustainable forms of energy production and distribution.	✓
	20) To ensure that there is no deterioration in water quality as a result of development.	✓
	21) To ensure that there is no increase in fluvial flood risk as a result of development.	✓
	22) To ensure that the use of sustainable drainage systems are maximised throughout the development, with positive outcomes sought in regards to biodiversity gain and blue infrastructure networks.	✓
	23) To protect, and where possible, enhance designated and non-designated heritage assets and their settings both above and below ground.	✓

4.2.3 Alternatives Considered

The Vision can be seen as a general summary of the content of the Plan. The individual elements of the Vision are elaborated on in more detail within other elements of the document. Alternatives are explored in more detail within the assessment of these elements, presented as ‘themes and principles’ later within this SA, commensurate to their individual context.

4.2.4 Proposed Mitigation Measures / Recommendations

The Plan's Vision and the Sustainability Objectives are largely compatible. The Plan is not compatible with the objective to minimise the loss of the best and most versatile agricultural land, however this is no criticism of the Plan's Vision and related to the nature of Greenfield development. Uncertainty surrounds the Vision where certain objectives are not specifically covered, such as addressing issues of coalescence with existing settlements and ensuring an appropriate level of car parking; however these are likely to be ensured through other more general aspirations regarding design and landscape. The Plan's Vision does not explicitly mention the requirement for ensuring provision for Gypsy and Traveller accommodation, and it is recommended that this is included in future iterations in order to reflect the content of Policy SP10 of the Strategic Section One of Braintree's emerging Local Plan and Policy SP8 of the emerging Uttlesford Local Plan.

4.3 Planning Themes and Principles of the Garden Community

4.3.1 Context / Justification

Section 4 of the West of Braintree Garden Community Plan contains a number of 'themes' related to Garden Community Charter Principles. Within this SA the content of these 'themes', as outlined in the Plan, are appraised.

The Plan includes a narrative of how each Charter Principle can be met within the Garden Community, physically and in terms of how development can be shaped within the mechanisms of the Plan itself. These narratives form the basis for each thematic appraisal.

4.3.2 Theme 1: Place and Integration

The principles that form the content of this theme are as follows:

THEME 1: PLACE AND INTEGRATION

Created from a comprehensive and integrated approach to placemaking the Garden Communities will be amazing places to live, work and spend leisure and recreation time.

PRINCIPLE 1: GREEN INFRASTRUCTURE

The Garden Communities will provide a generous amount of green space. They will be set within a multi-functional and integrated natural environment; providing space for nature, making the communities more resilient to climate change; promoting healthy lifestyles, and creating beautiful places to live and work.

PRINCIPLE 2: INTEGRATED AND SUSTAINABLE TRANSPORT

The Garden Communities will be planned around a step change in integrated and sustainable transport system for the north Essex area, which will put walking, cycling and public transit systems at the heart of the development, and be delivered in a timely way to support the communities as they grow.

PRINCIPLE 3: EMPLOYMENT OPPORTUNITY

The Garden Communities will seek to provide access to one job per household within the new community or within a short distance by public transport. The employment function will be a key component of creating character and identity and sustainable communities.

PRINCIPLE 4: LIVING ENVIRONMENT

Community inclusiveness and walkable, sociable and vibrant neighbourhoods will be a defining characteristic of the garden communities. A diverse mix of homes responding to existing and future local needs will be provided alongside a range of community services,

including health, education, leisure and recreation, culture and shopping.

PRINCIPLE 5: SMART AND SUSTAINABLE LIVING

Planned for the 21st century, the Garden Communities will secure a smart and sustainable approach that fosters resilient environments and communities; able to respond positively to changing circumstances. Innovation and technology will be embraced to achieve resource efficiency, higher quality of life and healthier lifestyles; creating the conditions for sustainable living.

PRINCIPLE 6: GOOD DESIGN

Through all stages of the planning, design and development of the Garden Communities the highest quality of design and management of the built and public realm will be promoted. Existing local assets will be capitalised to help create distinctive places.

4.3.2.1 Significant, Secondary and Temporal Effects

Table 6: Impact on Sustainability Objectives: Theme 1 – Place and Integration

Sustainability Objectives (SO)		Impacts		
		Short Term	Medium Term	Long Term
ECONOMIC OBJECTIVES	1	+	+	+
	2	++	++	++
	3	+	+	+
	4	-	-	-
	Commentary	<p>Positive impacts are highlighted for Sustainability Objective 1, where the Plan identifies that the economic growth prospects of the Garden Community confirms that the West of Braintree Garden Community would likely to be associated with significant jobs growth, where jobs linked to exogenous growth processes are presumed to be physically on site and those linked to homeworking will be physically associated with the homes of residents and therefore also on site. Positive impacts have been identified for Sustainability Objective 3, regarding capitalising on the links to local employment opportunities and taking advantage of the site's proximity to the economic hubs of Braintree, Witham, Chelmsford and London Stansted Airport. The Plan recognises that access to these hubs should be supported by sustainable transport means and improvements to local networks.</p> <p>Significantly positive impacts have been highlighted regarding Sustainability Objective 2 and a need for convenience retail provision. The Plan acknowledges that the Garden Community will need to establish a major new centre at its heart to focus</p>		

Sustainability Objectives (SO)	Impacts		
	Short Term	Medium Term	Long Term
	<p>the predominant interaction and exchange of social and economic capital within the Garden Community. It adds that, 'this new centre will likely comprise of large groups of shops containing at least one supermarket and a range of non-retail services such as banks, cafés and restaurants. It could also contain community hubs providing co-located facilities such as educational (early years, primary and secondary levels).' The Plan additionally specifies a need for supporting local centres located in proximity to new neighbourhoods containing smaller groups of convenience shops and services.</p> <p>Negative impacts have been highlighted for the loss of Grade 2 Agricultural Land, which represents the highest grade soils within the Districts of both Braintree and Uttlesford. Despite this, impacts are not highlighted as significant due to the prevalence of Grade 2 soils in both Districts.</p> <p>With the exception of the Plan's aspirations regarding retail provision, the economic themed Sustainability Objectives have not been identified as having significant impacts at this early stage in the plan-making process. This is in reflection of the Plan's statement regarding the ambitions nature of the Garden Community Charter aspiration of 'one job per house' and that, 'achievability depends on many different factors, some of which are very difficult to influence, but the likelihood of achieving desired employment growth will increase if there is a proactive economic growth plan in place across the area and the Garden Community is delivered in a manner which itself is proactive, visionary, managed and appropriately resourced.'</p>		
SOCIAL OBJECTIVES	5	++	++
	6	++	++
	7	+	+
	8	+	+
	9	-	-
	10	++	++
	11	++	++
	12	++	++
	13	+	+
	?		
	Commentary	There will be positive impacts regarding accessible natural green space through requirements for open space to be integrated throughout the Garden Community and	

Sustainability Objectives (SO)	Impacts		
	Short Term	Medium Term	Long Term
	<p>also the integration of major local new parkland. Additionally, the Plan's sub-section regarding an 'active landscape' successfully seeks to ensure high quality sport and leisure provision as well as including a level of flexibility for spaces to be used throughout the year. As a result, positive impacts have been identified for Sustainability Objective 7 regarding accessibility to facilities in so far as is relevant to this specific theme.</p> <p>There will be significant positive impacts on Sustainability Objective 6 regarding coalescence in response to the new community, through Theme 1, addressing the relationship with existing communities close to its boundaries and maintain a separation between them including the villages of Great Saling, Stebbing Green and Rayne. Further detail is likely to be provided at later consultation stages. Similarly, under Theme 1 - Principle 6 it is stated that, 'it is considered desirable to retain a 'green gap' between the new Garden Community and the surrounding villages and towns, to avoid coalescence and maintain settlement identity.'</p> <p>There will be positive impacts on Sustainability Objective 8, regarding the provision of a mix of house types and tenures. The Plan states that, 'a successful Garden Community must seek to ensure the type and tenure of housing product is expanded beyond what the market would deliver and the number of residential outlets increased or accelerated. Housing types and tenures could seek to consider custom-build, self-build, starter homes, co-housing, older persons housing (including retirement communities, Independent Living schemes, supported living and extra care), housing for vulnerable and disabled people as well as the private rented sector (PRS).' This can be seen to go above and beyond what the market can be expected to provide, however the Plan could elaborate in future iterations how these different types of housing could be integrated within the wider design of the Garden Community, in addition to affordable units, to ensure social inclusivity.</p> <p>Negative impacts have been highlighted regarding an absence of Gypsy and Traveller accommodation provision. The principle of the Garden Community, established at the strategic level within the emerging Braintree District Local Plan, included a level of Gypsy and Traveller accommodation at this Garden Community.</p> <p>Significant positive impacts have been highlighted regarding Sustainability Objective 9 and the provision of schools and other supporting infrastructure within the Garden Community's major central and supporting local centres throughout the Garden Community. This also ensures additional positive impacts on Sustainability Objective 7.</p> <p>The Plan's Principle 2 recognises the importance of ensuring the highest level of strategic connectivity with the wider regional transport system, additionally identifying that the Garden Community site does not currently feed into the wider public transport system and that a rapid transit system is needed. The Plan states that this could take the form of strategic light rail, tram-train, or a guided or priority bus service</p>		

Sustainability Objectives (SO)	Impacts		
	Short Term	Medium Term	Long Term
	<p>which could link the site up to London Stansted Airport to the west and Harwich (via Colchester) to the east.' On a more local level, the Plan similarly identifies that links to existing rail services at Braintree and Witham would be required as well as establishing links through a considerable upgrading of the local bus network. Active modes are also sought for local journeys such as by walking and cycling (with high levels of cycle parking) to on-site services and facilities and this principle will contribute to the design and layout of the Garden Community. These measures notionally identified within the Plan, significantly positive impacts have been highlighted for Sustainability Objective 11.</p> <p>Significant positive impacts are also identified regarding Sustainability Objective 12, regarding access to existing roads and the provision of a suitable network of roads on site. The Plan states that 'the road network within the Garden Community will be framed around a hierarchy of different types of streets connecting users from neighbourhoods to the local highway system and beyond. A network of primary streets will have to link the site with the external local trunk road system providing a connection to local centres, whilst also providing connections to an eventual network of secondary streets within the site. The secondary and tertiary levels of the road network will have to be planned to preserve the current nature of existing lanes.' Despite this however, reference could be made, alongside notional measures to protect, the 'Pods Lane' Protected Lane. Designated Protected Lanes are heritage assets and would likely need to be integrated into any new Garden Community.</p> <p>Minor to uncertain impacts (over time) have been identified for Sustainability Objective 13, associated with car parking. The Plan identifies that car parking must be long-sighted in its intent to reduce car reliance; however questions need to be asked regarding how this affects physical numbers of parking spaces per dwelling in future iterations of the Plan. The Plan adds that 'policy should primarily focus on on-site car parking and street design along with its capacity to serve development that is consistent with a modal choice away from the private car' which will have positive impacts on Sustainability Objective 13, however the suggestion of a clear grading of parking ratios based on public transport accessibility and housing density will need to be carefully scrutinised in order to ensure that design and parking space provision is not compromised by too heavy a reliance on the notion of modal shift. The identification of this issue stems from the lessons learned in the development of the ECC Parking Standards document, which found that a lower provision of spaces per dwelling resulted in frequent incidents of poor parking practices in development, with corresponding effects on accessibility particularly for emergency services vehicles.</p>		

Sustainability Objectives (SO)		Impacts		
		Short Term	Medium Term	Long Term
ENVIRONMENTAL OBJECTIVES	14	++	++	++
	15	?	?	?
	16	?	?	?
	17	++	++	++
	18	++	++	++
	19	+	+	+
	20	?	?	?
	21	+	+	+
	22	+	+	+
	23	?	?	?
	Commentary	<p>The Plan, in its principle regarding ‘smart and sustainable living’ actively seeks to ensure innovative forms of utility technology, corresponding to significant positive impacts on Sustainability Objective 14. Impacts are expected to be realised in the long term, with consideration to ‘future proofing’ the planning of the new Community so that places can adapt as technology and lifestyles change.</p> <p>Although the Plan seeks extensive green space and landscapes, it could be conceived that gaps are apparent within the text of Theme 1 surrounding specific and direct habitat creation for biodiversity gain. This can be considered pertinent in response to the flagship restoration scheme that was previously envisaged for the Broadfield Farm quarry site on the site. For this reason, uncertain impacts have been identified for Sustainability Objective 15.</p> <p>Regarding Sustainability Objective 16, and a desire to separate recreational activities and biodiversity features (existing or newly created), uncertain impacts have also been identified at this stage relevant to on-site issues only. This is a result of the ‘Settlement-wide Landscape’ sub-section of the Plan, which states that ‘areas of habitat and Town Farm provide the stage for residents to directly engage with the landscape, and the flora and fauna it supports, both formally and informally.’ This will need to be carefully managed to ensure no possible compromise of the status of habitats through recreational activity.</p> <p>In response to the aspirations of Sustainability Objectives 17 and 18, regarding protecting and creating landscape features on site, and also ensuring that the Garden</p>		

Sustainability Objectives (SO)	Impacts		
	Short Term	Medium Term	Long Term
	<p>Community is integrated within the existing rural landscape, there will be significant positive effects. This is due to the Plan ensuring a high standard of design and layout, drawing on its context and the assets within and close to its boundaries including Boxted Wood, Golden Grove, Rumley Wood, Pods Brook, and the historic airfield at Andrewsfield. These key assets will provide a context to build a new green-grid upon to provide an attractive setting for the new community and linking it to the wider countryside.</p> <p>There will be positive impacts associated with renewable energy and energy efficiency (Sustainability Objective 19) though Principle 5, in particular the Smart Infrastructure principles that state that future work will endeavour ensure that the Garden Community makes space for heat and power energy generation centres and hubs, maximises efficiency at the household and business level, with on-site generation, and a mixed portfolio of energy technologies to avoid dependence on any one energy solution. Uncertain impacts have been identified regarding Sustainability Objective 20, ensuring that there is no deterioration in water quality as a result of development, in the absence of implicit mention of the current condition of both Pods Brook and the River Ter. Nevertheless, positive implications can be expected through the enhancement and active management of the vegetation in and around the Brook and reinstating the natural route of the water course.</p> <p>Positive impacts are also highlighted for flood risk (Sustainability Objective 21). Fluvial flood risk is not specifically mentioned within the Plan; however the retention of such areas is implied throughout Principle 1. Regarding surface water flood risk and the integration of SuDS (Sustainability Objective 22), positive impacts have been highlighted where the Plan states that, 'networks of drainage ditches will provide the framework for a sustainable drainage network. The underlying geology and soil structure favour attenuation sustainable urban drainage systems (SuDS) that could be used to create attractive ponds on site that could be both an ecological resource or used to store water for reuse on site.' Impacts are limited however where the Plan does not specifically mention, within Theme 1, solutions surrounding the underlying London Clay and clay soils that can impede the rate of infiltration and in turn may limit the use of infiltration sustainable urban drainage systems on site.</p> <p>The Plan recognises that there are areas of sensitive landscape regarding specific locations and the potential impacts on other settlements which will require a sensitive design response. The presence of a number of heritage assets within and adjacent to the site, most notably the Great Saling Conservation Area and the Registered Park and Garden to the north would require further additional protection and enhancement in the Plan. Uncertain impacts have been highlighted for Sustainability Objective 23 at this stage and it is recommended that the relationship between these assets and their settings with the wider landscape is recognised and elaborated on in future iterations of the Plan.</p>		

4.3.2.2 Alternatives Considered

The Theme at this stage relates to practical ways in which the Garden Community could meet the requirements of related Garden Community Charter principles. As such, it would be premature to indicate which measures should and would be more suitable for integration on site at this early stage in the plan-making process and prior to any formal public consultation. In the absence of any firm details within the Plan, no alternative approaches can be identified for appraisal at this stage.

4.3.2.3 Proposed Mitigation Measures / Recommendations

- The Plan could elaborate in future iterations how these different types of housing could be integrated within the wider design of the Garden Community, in addition to affordable units, to ensure social inclusivity.
- It is recommended that this is included in future iterations in order to reflect the content of Policy SP10 of the Strategic Section One of Braintree's emerging Local Plan and Policy SP8 of the emerging Uttlesford Local Plan.
- Reference could be made, alongside notional measures to protect, the 'Pods Lane' Protected Lane. Designated Protected Lanes are heritage assets and would likely need to be integrated into any new Garden Community.
- The suggestion of a clear grading of parking ratios based on public transport accessibility and housing density will need to be carefully scrutinised in order to ensure that design and parking space provision is not compromised by too heavy a reliance on the notion of modal shift.
- It is recommended that text as to specific areas of biodiversity creation and the enhancement of existing features is included within future iterations of the Plan.
- Regarding the 'Settlement-wide Landscape' sub-section of the Plan, which states that 'areas of habitat and Town Farm provide the stage for residents to directly engage with the landscape, and the flora and fauna it supports, both formally and informally'; this will need to be carefully managed to ensure no possible compromise of the status of habitats through recreational activity.
- The Plan does not specifically mention, within Theme 1, solutions surrounding the underlying London Clay and clay soils that can impede the rate of infiltration and in turn may limit the use of infiltration sustainable urban drainage systems on site. It is recommended that this be addressed.
- The presence of a number of heritage assets within and adjacent to the site, most notably the Great Saling Conservation Area and the Registered Park and Garden to the north would require further additional protection and enhancement in the Plan. Uncertain impacts have been highlighted for Sustainability Objective 23 at this stage and it is recommended that the relationship between these assets and their settings with the wider landscape is recognised and elaborated on in future iterations of the Plan.

4.3.3 Theme 2: Community

The principles that form the content of this theme are as follows:

THEME 2: COMMUNITY

A sense of community and active community participation will be at the heart of the Garden Communities and central to their planning, development and long term management.

PRINCIPLE 7: COMMUNITY ENGAGEMENT

The Garden Communities are a locally-led initiative, and their development will be shaped through engaging existing communities and emerging new communities; residents will be empowered to contribute to shaping the future of north Essex.

PRINCIPLE 8: ACTIVE LOCAL STEWARDSHIP

The Garden Communities will be developed and managed in perpetuity with the direct involvement of their residents and businesses; residents will be directly engaged in the long term management and stewardship, fostering a shared sense of ownership and identity.

4.3.3.1 Significant, Secondary and Temporal Effects

Table 7: Impact on Sustainability Objectives: Theme 2 - Community

Sustainability Objectives (SO)		Impacts		
		Short Term	Medium Term	Long Term
ECONOMIC OBJECTIVES	1	0	0	0
	2	0	0	0
	3	0	0	0
	4	0	0	0
	Commentary	There will be no impacts on the economic Sustainability Objectives through this Theme.		
SOCIAL OBJECTIVES	5	+	+	+
	6	0	0	0
	7	+	+	+
	8	0	0	0

Sustainability Objectives (SO)	Impacts		
	Short Term	Medium Term	Long Term
9	0	0	0
10	0	0	0
11	0	0	0
12	0	0	0
13	0	0	0
Commentary	There will be positive implications regarding those Sustainability Objectives related to open space management (SO5) and ensuring an appropriate and desirable level of services and facilities (SO7), through effective community engagement and active stewardship once the Garden Community has been delivered.		
ENVIRONMENTAL OBJECTIVES	14	+	+
	15	+	+
	16	+	+
	17	+	+
	18	0	0
	19	0	0
	20	0	0
	21	0	0
	22	+	+
	23	0	0
	Commentary	The plan states that, 'a wide range of social infrastructure can be co-located alongside the key service centres. This could include the community, health, education, cultural, and recreational facilities that provide for the needs of a cohesive community. These facilities will 'anchor' the Garden Community, providing a range of facilities in close proximity to people's homes. Typically these will be positioned on public transport and served by attractive and safe cycling and walking routes to facilitate the creation of walkable and cycleable neighbourhoods as well as allowing easy access for residents across the Garden Community. It will be critical that the	

Sustainability Objectives (SO)	Impacts		
	Short Term	Medium Term	Long Term
	provision of social infrastructure is delivered at the earliest possible stages of development in order to advance the establishment of a community and ensure that early residents are adequately served by new facilities, avoiding placing undue pressure on existing provision.' This will ensure positive impacts related to design (SO14), the maintenance of habitats, green and blue infrastructure (including indirectly those created through SuDS (SO22)) and ensuring these are protected alongside recreational areas (SO15 and SO16), and landscape features (SO17).		

4.3.3.2 Alternatives Considered

The Theme at this stage relates to practical ways in which the Garden Community could meet the requirements of related Garden Community Charter principles. As such, it would be premature to indicate which measures should and would be more suitable for integration on site at this early stage in the plan-making process and prior to any formal public consultation. In the absence of any firm details within the Plan, no alternative approaches can be identified for appraisal at this stage.

4.3.3.3 Proposed Mitigation Measures / Recommendations

No mitigation measures or recommendations are proposed at this stage.

4.3.4 Theme 3: Delivery

The principles that form the content of this theme are as follows:

THEME 3: DELIVERY

The ambition of the Garden Communities to create something special, unique and lasting for north Essex will be supported by a delivery structure that embraces collaboration, a common sense of purpose, commitment and vision, and where risk and reward is shared.

PRINCIPLE 9: STRONG CORPORATE AND POLITICAL PUBLIC LEADERSHIP

The councils of North Essex will collaborate to provide clear vision for the garden communities and commitment to their long term success. Central to this will be a commitment to high quality placemaking, timely infrastructure provision, and achieving a steady pace of housing and employment delivery.

PRINCIPLE 10: INNOVATIVE DELIVERY STRUCTURE

The Garden Communities will be delivered through a genuine and pro-active partnership approach between the public and private sectors, where risk and reward is shared and community empowerment enabled.

4.3.4.1 Significant, Secondary and Temporal Effects

Table 8: Impact on Sustainability Objectives: Theme 3 - Delivery

Sustainability Objectives (SO)		Impacts		
		Short Term	Medium Term	Long Term
ECONOMIC OBJECTIVES	1	+	+	+
	2	+	+	+
	3	+	+	+
	4	0	0	0
	Commentary	Theme 3 will ensure, indirectly, that the majority of the economic Sustainability Objectives will be met with positive outcomes. The Plan states that there is a '...desire of the public sector, represented by the two local Councils, to play a full and active role in the development of the Garden Community, and to participate in both the risks and the rewards of development, securing benefits for the wider communities.' With a preference for the formation of local Development Corporations to prepare masterplans and other guidance, the Plan and Councils' aspire to offer		

Sustainability Objectives (SO)		Impacts		
		Short Term	Medium Term	Long Term
		truly sustainable outcomes.		
SOCIAL OBJECTIVES	5	+	+	+
	6	+	+	+
	7	+	+	+
	8	+	+	+
	9	?	?	?
	10	+	+	+
	11	+	+	+
	12	+	+	+
	13	+	+	+
	Commentary	Theme 3 will ensure, indirectly, that the majority of the social Sustainability Objectives will be met with positive outcomes. The Plan states that there is a '...desire of the public sector, represented by the two local Councils, to play a full and active role in the development of the Garden Community, and to participate in both the risks and the rewards of development, securing benefits for the wider communities.' With a preference for the formation of local Development Corporations to prepare masterplans and other guidance, the Plan and Councils' aspire to offer truly sustainable outcomes. Uncertain impacts regarding Sustainability Objective 9 reflect the absence of Gypsy and Traveller provision elsewhere in the Plan's Themes.		
ENVIRONMENTAL OBJECTIVES	14	+	+	+
	15	+	+	+
	16	+	+	+
	17	+	+	+
	18	+	+	+
	19	+	+	+

Sustainability Objectives (SO)	Impacts		
	Short Term	Medium Term	Long Term
20	+	+	+
21	+	+	+
22	+	+	+
23	+	+	+
Commentary	Theme 3 will ensure, indirectly, that the majority of the environmental Sustainability Objectives will be met with positive outcomes. The Plan states that there is a '...desire of the public sector, represented by the two local Councils, to play a full and active role in the development of the Garden Community, and to participate in both the risks and the rewards of development, securing benefits for the wider communities.' With a preference for the formation of local Development Corporations to prepare masterplans and other guidance, the Plan and Councils' aspire to offer truly sustainable outcomes. Uncertain impacts regarding Sustainability Objective 9 reflect the absence of provision elsewhere in the Plan's Themes.		

4.3.4.2 Alternatives Considered

The Theme at this stage relates to practical ways in which the Garden Community could meet the requirements of related Garden Community Charter principles. As such, it would be premature to indicate which measures should and would be more suitable for integration on site at this early stage in the plan-making process and prior to any formal public consultation. In the absence of any firm details within the Plan, no alternative approaches can be identified for appraisal at this stage.

It should be noted however that the Strategic Section One for Braintree's emerging Local Plan establishes and assesses alternatives relevant to the principle of the Garden Community delivery model in comparison to more traditional approaches to growth.

4.3.4.3 Proposed Mitigation Measures / Recommendations

No mitigation measures or recommendations are proposed at this stage.

5. The Plan's Spatial Boundary Options

5.1 Introduction

The Plan states that, 'both the Braintree and Uttlesford emerging Local Plans show the West of Braintree Garden Community as a broad location. This means that further detailed work is required to determine the full extent of land required.'

The Plan adds that, 'Part of the role of the West of Braintree Plan is to determine the full extent of land required for the Garden Community. In order to determine the full extent of the land required it is necessary to consider the nature of the existing area and the level of land uses and infrastructure required to serve the Garden Community.'

'The area of land that could accommodate a new Garden Community in the area has been refined from options presented in the Options and Evaluation study which was influenced by stakeholder consultation with local community representatives in November 2016 and March 2017, as well as an understanding of the issues and the inter-relationship between them which include:

- identification of clear and defensible boundaries (water courses, roads, woodland belts);
- appreciation of distance and separation of communities – (physical, visual, perceived);
- relationship to existing settlements;
- nature of land that will perform the role of a 'green buffer' which will define an envelope within which a new community can be accommodated that remains distinct from other existing settlements;
- planning policy protection (how might this land be protected 'in perpetuity' from built development whilst allowing complementary activities that support both the new community and existing communities?).'

5.2 What has Sustainability Appraisals involved at this point?

SA work undertaken to the emerging Local Plans forms a good starting point to base the assessment of the Garden Community within the Plan. The SA of the Strategic Section One of the Local Plans of Braintree District, Colchester Borough and Tendring District Councils, as well as the SA of the emerging Uttlesford District Local Plan (a second Regulation 18 'Preferred Options' consultation was undertaken in the summer 2017), appraises the West of Braintree site. The Section One SA assessed both the options identified for consultation in the West of Braintree Garden Community Plan. Despite this, that SA explored a number of alternative Garden Community options across a wider strategic area. Therefore the scope of that appraisal was broader and sustainability objectives were devised to be relevant to assess options across the strategic area on a level playing field. Also, the boundaries for the options were broadly identified, and further work has been undertaken to determine 'red line' boundaries for the options, as discussed in the previous sub-section.

The appraisal of the Garden Community within the Local Plan had a different context. Within both the Section One Local Plan and Uttlesford District Council Local Plan SAs, broad areas were assessed within the Local Plan context, using broad sustainability criteria relevant to Garden City principles where relevant and in consideration of broad constraints relevant to sustainability. This approach would consider the sustainability of Garden Communities as broad locations and ensure that the most sustainable locations are progressed to the benefit of the District's specific needs.

Garden Communities are by nature large Greenfield sites that can maximise sustainability benefits over a wide area. The Local Plan SAs used assumptions that their scale can seek effective mitigation and enhancements where smaller sites can not. To that extent, 'constraints' were actually considered 'benefits' for many sustainability factors and a pragmatic approach was taken to ensure both a fair appraisal and also in order to identify different impacts between options for comparison purposes.

5.3 The Appraisal of the West of Braintree Garden Community Spatial Boundary Options

5.3.1 Introduction

Site specific issues at the West of Braintree Garden Community need to be re-addressed commensurate to the level of detail and focus of the West of Braintree Garden Community Plan. The scoping requirements of the SA are set out in earlier sections of this report, and have been devised to explore the sustainability issues that are relevant to the West of Braintree Garden Community only.

5.3.2 The Appraisal of Options

This sub-section assesses the Garden Community boundaries that have been explored within the West of Braintree Garden Community Plan against the Sustainability Objectives explored in Section 3 of this report. The assessment focuses on quantitative impacts where possible, with an absence of qualitative judgements and assumptions used in order to provide a snapshot of the sustainability of the boundary options 'on the ground'.

A more qualitative assumption based appraisal, filling in the gaps of those unaddressed Sustainability Objectives at this stage, is likely to follow in future iterations of this SA. At this stage, the conclusions section of this SA provides a 'whole plan' overview regarding adherence to the Sustainability Objectives, exploring whether these gaps are adequately covered or addressed through the Plan's thematic content and consideration of Garden Community Charter principles.

5.3.2.1 Sustainability Objective 1) To ensure that new employment and complimentary uses are suitably provided and located within the Garden Community.

No assessment of the Spatial Boundary options has been made regarding this Sustainability Objective. In addition to being considered a more 'policy based' requirement of any proposal, any impacts associated with opportunities would be indistinguishable between the options.

	Option 1 – Combined Braintree and Uttlesford Local Plans area	Option 2 – Braintree Local Plan Area Only
Impacts	0	0
Commentary	No assessment of the options has been made regarding this Sustainability Objective.	

5.3.2.2 Sustainability Objective 2) To ensure that new retail space is suitably provided and located within the Garden Community, with no subsequent harm to the retail function of Braintree town centre.

The SA explores the following issues on the site in regard to existing employment links:

- Broad distance to Braintree town centre

	Option 1 – Combined Braintree and Uttlesford Local Plans area	Option 2 – Braintree Local Plan Area Only
Impacts	?/+	?/+
Commentary	Options 1 and 2 have been assessed as having uncertain / positive impacts on the retail function of the town of Braintree. Although positive impacts can reasonably be expected due to the close proximity of the options to the town centre; the lack of existing effective bus links to the centre and the similar ease of access to the strategic road network could see residents travelling to the larger centre of Chelmsford, or to Freeport; to the south of Braintree but physically detached from the town centre.	

5.3.2.3 Sustainability Objective 3) To maximise existing linkages and strengths in the local economy.

The SA explores the following issues on the site in regard to existing employment links:

- Broad distances to employment centres

	Option 1 – Combined Braintree and Uttlesford Local Plans area	Option 2 – Braintree Local Plan Area Only
Impacts	+	+
Commentary	Both options are in close proximity to employment in the town of Braintree and are accessible to the city of Chelmsford and London Stansted Airport wider afield. Skyline exists in close proximity to the south. The proximity of existing, and suitable integration, of public transport opportunities is explored in the assessment of options against Sustainability Objective 11. Both options have been assessed as having minor positive impacts at this stage.	

5.3.2.4 Sustainability Objective 4) To minimise the loss of the best and most versatile agricultural land.

The SA explores the following issues on the site in regard to soil quality:

- Agricultural Land Classification
- Potential contamination issues

	Option 1 – Combined Braintree and Uttlesford Local Plans area	Option 2 – Braintree Local Plan Area Only
Impacts	-	?/-
Commentary	Both options are within Grade 2 Agricultural Land which is classified as very good. A Contamination Report for the site to support the submission for consideration as a Local Plan allocation states that part of the Option 1 site can be classed as Brownfield due to historic WWII aviation uses at Andrewsfield. This part of the site has been classed as a Medium Risk due to facilities associated with its WWII use, including bomb storage area and Petrol Storage area. The remaining land within the Options have been categorised as a 'Low Risk' area. The Report adds that regarding remediation, it is possible that a degree of remediation work may be required in proportion of the medium risk areas, to improve land quality prior to development. Overall, negative impacts are highlighted for Option 1, with uncertain to negative impacts highlighted for Option 2, although it should be noted that impacts are not significant.	

5.3.2.5 Sustainability Objective 5) To ensure sufficient accessible natural green space throughout the Garden Community to benefit the new community and the surrounding rural areas.

No assessment of the Spatial Boundary options has been made regarding this Sustainability Objective. In addition to being considered a more 'policy based' requirement of any proposal, any impacts associated with opportunities would be indistinguishable between the options.

	Option 1 – Combined Braintree and Uttlesford Local Plans area	Option 2 – Braintree Local Plan Area Only
Impacts	0	0
Commentary	No assessment of the options has been made regarding this Sustainability Objective.	

5.3.2.6 Sustainability Objective 6) To improve areas between existing settlements and new development and to ensure that there is no coalescence with existing settlements.

The SA explores the following issues on the site in regard to landscape:

- Local Landscape Character Areas – sensitivity to change
- Possible coalescence with neighbouring settlements
- Presence of existing dwellings on site

	Option 1 – Combined Braintree and Uttlesford Local Plans area	Option 2 – Braintree Local Plan Area Only
Impacts	-	-
Commentary	<p>Negative impacts are highlighted for both options. The landscape of the majority of the area has a moderate to relatively high sensitivity to change. The development proposal will alter the characteristics of Landscape Character Areas B13 (Rayne Farmland Plateau) and A12 (Pods Brook River Valley).</p> <p>Potential coalescence should be identified as a sustainability issue based on the red-line boundaries of the options. Issues surround the proximity of Rayne to the south east, and Great Saling to the north. Regarding Option 1 specifically, development in the area could also contribute to the coalescence of Stebbing Green in the south west.</p> <p>There are limited numbers of existing residential properties in the area of both options, however the small settlement of Blake End exists to the south west and is located adjacent to a junction corresponding to possible access to the Garden Community from the B1256.</p>	

5.3.2.7 Sustainability Objective 7) To ensure that a range of services and facilities are included and suitably located within the Garden Community to maximise social inclusivity and to ensure safe, sustainable land use patterns that maximise accessibility between jobs, homes, services and facilities.

No assessment of the Spatial Boundary options has been made regarding this Sustainability Objective. In addition to being considered a more 'policy based' requirement of any proposal, any impacts associated with opportunities would be indistinguishable between the options.

	Option 1 – Combined Braintree and Uttlesford Local Plans area	Option 2 – Braintree Local Plan Area Only
Impacts	0	0
Commentary	No assessment of the options has been made regarding this Sustainability Objective.	

5.3.2.8 Sustainability Objective 8) To ensure a mix of housing types and tenures with as high a proportion of affordable units as possible.

No assessment of the Spatial Boundary options has been made regarding this Sustainability Objective. In addition to being considered a more 'policy based' requirement of any proposal, any impacts associated with opportunities would be indistinguishable between the options.

	Option 1 – Combined Braintree and Uttlesford Local Plans area	Option 2 – Braintree Local Plan Area Only
Impacts	0	0
Commentary	No assessment of the options has been made regarding this Sustainability Objective.	

5.3.2.9 Sustainability Objective 9) To ensure that provision for Gypsy and Traveller accommodation is appropriately located within the Garden Community with regard to access to services and social integration.

No assessment of the Spatial Boundary options has been made regarding this Sustainability Objective. In addition to being considered a more 'policy based' requirement of any proposal, any impacts associated with opportunities would be indistinguishable between the options.

	Option 1 – Combined Braintree and Uttlesford Local Plans area	Option 2 – Braintree Local Plan Area Only
Impacts	0	0
Commentary	No assessment of the options has been made regarding this Sustainability Objective.	

5.3.2.10 Sustainability Objective 10) To ensure the delivery of new schools and other supporting infrastructure to support the Garden Community.

No assessment of the Spatial Boundary options has been made regarding this Sustainability Objective. In addition to being considered a more 'policy based' requirement of any proposal, any impacts associated with opportunities would be indistinguishable between the options.

	Option 1 – Combined Braintree and Uttlesford Local Plans area	Option 2 – Braintree Local Plan Area Only
Impacts	0	0
Commentary	No assessment of the options has been made regarding this Sustainability Objective.	

5.3.2.11 Sustainability Objective 11) To maximise sustainable transport modes on site, minimise vehicle emissions, and to ensure effective links to existing off-site public transport services and interchanges.

The SA explores the following issues on the site in regard to sustainable transport and air quality:

- Bus links
- Rail links
- Presence of AQMAs
- Distance to major roads

	Option 1 – Combined Braintree and Uttlesford Local Plans area	Option 2 – Braintree Local Plan Area Only
Impacts	-	-
Commentary	<p>Minor negative impacts are highlighted for both options presently and based on existing conditions. The direct access of both options to the A120 can be considered advantageous in terms of connecting the options with North Essex inter-urban bus routes, providing connectivity with Stansted Airport and employment centres and the existing settlement.</p> <p>Despite this, both options do not benefit from an existing rail link and in addition links to the A120 and the strategic road network are likely to prove private car use attractive. Connecting the options with the Flitch Way could however provide direct links with Braintree and Braintree Railway Station.</p> <p>A limited existing bus network exists in close proximity to the site, currently setting down south of the site on the B1256 and providing an infrequent service to Chelmsford. A greater volume of buses currently serve Braintree town centre, however due to their current route pattern and the distance between the site and the town, accessibility by bus is poor.</p> <p>There are no AQMAs within or in close proximity to the site, however the southern parts of the site are within an area susceptible to poor air quality due to its proximity with a junction of the A120. Despite this, the majority of both options are not within an area of poor air quality.</p>	

5.3.2.12 Sustainability Objective 12) To ensure suitable access to and within the site and appropriate linkages to the existing road network that improves current conditions as far as possible.

The SA explores the following issues on the site in regard to wider accessibility:

- Distance to major roads

	Option 1 – Combined Braintree and Uttlesford Local Plans area	Option 2 – Braintree Local Plan Area Only
Impacts	++	++
Commentary	Both options benefit from good accessibility to the strategic road network in its southern and central parts and is reasonably well related to Great Dunmow and Braintree. A number of possible transport improvements have been identified to date that could be made as a result of the development, including Improvements to the existing B1256 Dunmow Road/ A120 eastbound on-slip roundabout, upgrade to the B1417/B1256 junction from priority to roundabout, improvements to the Blake End Road/ A120 Junction/ link and the implementation of a new roundabout before the B1256/ Stebbing Green Junction. For these reasons, significant positive impacts have been identified for both options.	

5.3.2.13 Sustainability Objective 13) To ensure an appropriate level of car parking.

No assessment of the Spatial Boundary options has been made regarding this Sustainability Objective. In addition to being considered a more 'policy based' requirement of any proposal, any impacts associated with opportunities would be indistinguishable between the options.

	Option 1 – Combined Braintree and Uttlesford Local Plans area	Option 2 – Braintree Local Plan Area Only
Impacts	0	0
Commentary	No assessment of the options has been made regarding this Sustainability Objective.	

5.3.2.14 Sustainability Objective 14) To ensure the design of new development is capable of maximising innovative forms of emerging utility-related technologies.

No assessment of the Spatial Boundary options has been made regarding this Sustainability Objective. In addition to being considered a more 'policy based' requirement of any proposal, any impacts associated with opportunities would be indistinguishable between the options.

	Option 1 – Combined Braintree and Uttlesford Local Plans area	Option 2 – Braintree Local Plan Area Only
Impacts	0	0
Commentary	No assessment of the options has been made regarding this Sustainability Objective.	

5.3.2.15 Sustainability Objective 15) To protect and enhance existing features of biodiversity through green corridors and ensure links between new habitats within the Garden Community and those that exist over a wider area.

The SA explores the following issues on the site in regard to biodiversity:

- Direct impact on Natura 2000 sites
- Whether the options are in SSSI Impact Risk Zones
- Whether the option contain Local Wildlife Sites
- The Non-designated ecological value of the sites

	Option 1 – Combined Braintree and Uttlesford Local Plans area	Option 2 – Braintree Local Plan Area Only
Impacts	-	?/-
Commentary	<p>The Appropriate Assessment undertaken for Braintree's emerging Local Plan concludes that the site (and therefore both options) will not have any specific impacts related to the loss of off-site impacts on Natura 2000 sites. Impacts have been identified commensurate to the level of growth in the wider area however, with Recreational Avoidance Mitigation Strategies being produced.</p> <p>Both options lie within a SSSI Impact Risk Zone. The broad area of both options contains a number of LoWSs, with additional priority habitat woodland being present in Option 1 associated with Boxted Wood (a LoWS and Ancient Woodland) and Andrewsfield air strip. An Ecology Assessment undertaken considers that the majority of the site is of low Ecological value due to the dominance of intensively farmed arable crops; however acknowledges that there are habitats of higher ecological value on site and that these could be retained. For these reasons, uncertain to negative impacts have been highlighted for Option 2, with minor negative impacts highlighted for Option 2.</p>	

5.3.2.16 Sustainability Objective 16) To ensure that recreational activity does not have negative effects on wildlife conservation and protection in the wider area.

No assessment of the Spatial Boundary options has been made regarding this Sustainability Objective. In addition to being considered a more 'policy based' requirement of any proposal, any impacts associated with opportunities would be indistinguishable between the options.

	Option 1 – Combined Braintree and Uttlesford Local Plans area	Option 2 – Braintree Local Plan Area Only
Impacts	0	0
Commentary	No assessment of the options has been made regarding this Sustainability Objective.	

5.3.2.17 Sustainability Objective 17) To ensure the protection, enhancement and creation of features of a landscape value throughout the Garden Community.

The SA explores the following issues on the site in regard to non-designated landscape features:

- Landscape features within boundary options

	Option 1 – Combined Braintree and Uttlesford Local Plans area	Option 2 – Braintree Local Plan Area Only
Impacts	-	?/-
Commentary	At this early stage, detailed impacts have not been identified as quantitative. As such, landscape features can only be identified as designated assets. Numerous landscape features exist on site and within both options. A portion of Ancient Woodland is found in-situ within the site's boundaries in Option 1. A number of Public Rights of Way run across both options also and these should also be retained or otherwise enhanced. For these reasons, uncertain to negative impacts have been highlighted for Option 2, with minor negative impacts highlighted for Option 2.	

5.3.2.18 Sustainability Objective 18) To ensure that the Garden Community is integrated into and does not harm the existing rural landscape.

No assessment of the Spatial Boundary options has been made regarding this Sustainability Objective. In addition to being considered a more 'policy based' requirement of any proposal through newly created and compatible on-site features, any impacts associated with opportunities would be indistinguishable between the options.

	Option 1 – Combined Braintree and Uttlesford Local Plans area	Option 2 – Braintree Local Plan Area Only
Impacts	0	0
Commentary	No assessment of the options has been made regarding this Sustainability Objective.	

5.3.2.19 Sustainability Objective 19) To ensure innovative forms of emerging utility-related technologies, and to embrace sustainable forms of energy production and distribution.

No assessment of the Spatial Boundary options has been made regarding this Sustainability Objective. In addition to being considered a more 'policy based' requirement of any proposal, any impacts associated with opportunities would be indistinguishable between the options.

	Option 1 – Combined Braintree and Uttlesford Local Plans area	Option 2 – Braintree Local Plan Area Only
Impacts	0	0
Commentary	No assessment of the options has been made regarding this Sustainability Objective.	

5.3.2.20 Sustainability Objective 20) To ensure that there is no deterioration in water quality as a result of development.

The SA explores the following issues on the site in regard to water quality:

- Impacts on flows
- The presence of water bodies on site
- Groundwater protection Zones
- Water quality of water courses in and in proximity of the site

	Option 1 – Combined Braintree and Uttlesford Local Plans area	Option 2 – Braintree Local Plan Area Only
Impacts	-	-
Commentary	Both options have been identified as having the potential to impact on flows entering Stebbing Brook and the River Ter. There are water bodies across both options, particularly in the west / north west, but these are considered relatively insignificant in reflection of the scale of the options. The majority of the water courses classified by the Environment Agency as ecologically poor; both the Pods Brook and River Ter are failing to meet the Water Framework Directive target of good ecological status and are considered to be at risk of further deterioration in water quality. Further, both options are situated within a Drinking Water Safeguarding Zone and surface and groundwater nitrate vulnerability zones, however neither option is within a groundwater protection zone. Overall, negative impacts have been highlighted for both options.	

5.3.2.21 Sustainability Objective 21) To ensure that there is no increase in fluvial flood risk as a result of development.

The SA explores the following issues on the site in regard to fluvial flood risk:

- Presence of land within Flood Risk Zones 2 and 3

	Option 1 – Combined Braintree and Uttlesford Local Plans area	Option 2 – Braintree Local Plan Area Only
Impacts	?/+	?/+
Commentary	There is an area of high fluvial flood risk through the centre of the options and to the east but this is confined to a narrow floodplain by topography. The eastern boundary of the site falls within Flood Risk Zones 2 and 3 following the Pods Brook. A Flood Risk Assessment undertaken for the site as submitted for consideration in the Districts' Local Plans deems flood risk however to be low risk. The southern-most portion of the site includes an area of the River Ter channel and is partly within Flood Zone 2 and 3. Overall, the vast majority of the site is within Flood Risk Zone 1, and for this reason, coupled with those issues identified above, uncertain to positive impacts have been highlighted for both options.	

5.3.2.22 Sustainability Objective 22) To ensure that the use of sustainable drainage systems are maximised throughout the development, with positive outcomes sought in regards to biodiversity gain and blue infrastructure networks.

The SA explores the following issues on the site in regard to surface water flood risk:

- Risk of surface water flooding

	Option 1 – Combined Braintree and Uttlesford Local Plans area	Option 2 – Braintree Local Plan Area Only
Impacts	?/-	?
Commentary	In regards to Surface Water Flood Risk, the report states that parts of the North West corner of the site and along the Pods Channel Brook are at a medium to high risk of surface water flooding. For this reason, uncertain to negative impacts are highlighted for Option 1, and uncertain impacts highlighted for Option 2.	

5.3.2.23 Sustainability Objective 23) To protect, and where possible, enhance designated and non-designated heritage assets and their settings both above and below ground.

The SA explores the following issues on the site in regard to the historic environment:

- Presence of heritage assets
- Impact on heritage assets
- Potential for protection / enhancement of heritage assets (undertaken by Place Services Historic Environment specialists)

	Option 1 – Combined Braintree and Uttlesford Local Plans area	Option 2 – Braintree Local Plan Area Only
Impacts	-	-
Commentary	<p>There are a number, albeit relatively low in consideration of the scale of the options, of Listed Buildings across the wide area. These are predominantly clustered at three locations: Parkes Farm, Blake House Farm and Pound Farm. A Protected Lane, 'Pods Lane,' bisects both options from north to south along two stretches in the eastern part of the site. There is also a Registered Park and Garden at Saling Grove to the immediate north of both options. A Landscape Assessment undertaken for the site raises the possibility that the setting of the Registered Park and Garden may be altered as a result of the proposals, as well as the wider setting of the Listed Buildings both on and in close proximity to the site. The site abuts the Conservation Area of Great Saling on its northern boundary. Further assessment also highlights elements of the WWII airfield that also survive. Below ground, there is also a known Roman villa site within the site in the area of Boxted Wood and the potential for earthworks within the Ancient Woodland. Overall, negative impacts are highlighted for both options.</p>	

5.3.3 Mitigation Measures & Recommendations

The smaller Option 2 is considered to have fewer potential negative impacts at this stage. Option 1 is assessed as having comparably more negative implications due to an increased likelihood of negative impacts associated with nature conservation and heritage assets (and associated landscape features) to the western boundary of the option, largely singularly representing the inclusion of Boxted Wood. Both options will need to address the presence of heritage assets throughout the area, and also off-site to the north associated with the Conservation Area of Great Saling which contains a range of listed buildings as well as the Registered Park and Garden of Saling Grove. It is recommended that enhancements are sought at the design and masterplanning stage with assets factored into the Garden Community. It is also recommended that a buffer separation be ensured through masterplanning to minimise certain impacts on existing communities, specifically in relation to residents in Great Saling, Stebbing Green and Blake End.

6. Non-Technical Conclusions and Recommendations

6.1 The Plan's Themes and Principles

6.1.1 Key Points from the Assessment of the Plan's Themes and Principles

The following table sets out the impacts identified through the appraisal of the Plan's Themes and Principles.

Table 9: Summary of Impacts of the Plan's Themes and Principles

Sustainability Objectives (SO)		Theme 1: Place and Integration	Theme 2: Community	Theme 3: Delivery
ECONOMIC OBJECTIVES	1	+	0	+
	2	++	0	+
	3	+	0	+
	4	-	0	0
SOCIAL OBJECTIVES	5	++	+	+
	6	++	0	+
	7	+	+	+
	8	+	0	+
	9	-	0	?
	10	++	0	+
	11	++	0	+
	12	++	0	+
	13	?	0	+

Sustainability Objectives (SO)		Theme 1: Place and Integration	Theme 2: Community	Theme 3: Delivery
ENVIRONMENTAL OBJECTIVES	14	++	+	+
	15	?	+	+
	16	?	+	+
	17	++	+	+
	18	++	0	+
	19	+	0	+
	20	?	0	+
	21	+	0	+
	22	+	+	+
	23	?	0	+

The following key points can be made from the appraisal of the Plan's Themes and Principles:

- Positive impacts are highlighted for Sustainability Objective 1, where the West of Braintree Garden Community would likely to be associated with significant jobs growth,
- Positive impacts have been identified for Sustainability Objective 3, regarding capitalising on the links to local employment opportunities and taking advantage of the site's proximity to the economic hubs of Braintree, Witham, Chelmsford and London Stansted Airport. The Plan recognises that access to these hubs should be supported by sustainable transport means and improvements to local networks.
- Significantly positive impacts have been highlighted regarding Sustainability Objective 2 and a need for convenience retail provision. The Plan acknowledges that the Garden Community will need to establish a major new centre at its heart to focus the predominant interaction and exchange of social and economic capital within the Garden Community. The Plan additionally specifies a need for supporting local centres located in proximity to new neighbourhoods containing smaller groups of convenience shops and services.
- Negative impacts have been highlighted for the loss of Grade 2 Agricultural Land, which represents the highest grade soils within the Districts of both Braintree and Uttlesford. Despite this, impacts are not highlighted as significant due to the prevalence of Grade 2 soils in both Districts.
- There will be positive impacts regarding accessible natural green space through requirements for

open space to be integrated throughout the Garden Community and also the integration of major local new parkland.

- The Plan's section regarding an 'active landscape' successfully seeks to ensure high quality sport and leisure provision as well as including a level of flexibility for spaces to be used throughout the year. As a result, positive impacts have been identified for Sustainability Objective 7.
- There will be significant positive impacts on Sustainability Objective 6 regarding coalescence through the Plan addressing the relationship with existing communities close to its boundaries and maintaining a separation between them including the villages of Great Saling, Stebbing Green and Rayne.
- There will be positive impacts on Sustainability Objective 8, regarding the provision of a mix of house types and tenures. This can be seen to go above and beyond what the market can be expected to provide.
- Negative impacts have been highlighted regarding an absence of Gypsy and Traveller accommodation provision. The principle of the Garden Community, established at the strategic level within the emerging Braintree and Uttlesford District Local Plans, including a level of Gypsy and Traveller accommodation at this Garden Community.
- Significant positive impacts have been highlighted regarding Sustainability Objective 9 and the provision of schools and other supporting infrastructure within the Garden Community's major central and supporting local centres throughout the Garden Community.
- The Plan recognises the importance of ensuring the highest level of strategic connectivity with the wider regional transport system, additionally identifying that the Garden Community site does not currently feed into the wider public transport system and that a rapid transit system is needed.
- Active modes are also sought for local journeys such as by walking and cycling (with high levels of cycle parking) to on-site services and facilities and this principle will contribute to the design and layout of the Garden Community.
- Significant positive impacts are also identified regarding Sustainability Objective 12, regarding access to existing roads and the provision of a suitable network of roads on site. The Plan states that 'the road network within the Garden Community will be framed around a hierarchy of different types of streets connecting users from neighbourhoods to the local highway system and beyond.
- Minor to uncertain impacts (over time) have been identified for Sustainability Objective 13, associated with car parking. The Plan identifies that car parking must be long-sighted in its intent to reduce car reliance; however a lower provision of spaces per dwelling can result in incidents of poor parking practices within developments, with corresponding effects on accessibility particularly for emergency services vehicles.
- The Plan seeks to ensure innovative forms of utility technology, corresponding to significant positive impacts on Sustainability Objective 14. Impacts are expected to be realised in the long term, with consideration to 'future proofing' the planning of the new Community so that places can adapt as technology and lifestyles change.

- Regarding Sustainability Objective 16, and a desire to separate recreational activities and biodiversity features (existing or newly created), uncertain impacts have been identified at this stage relevant to on-site issues only. This will need to be carefully managed to ensure no possible compromise of the status of habitats through recreational activity.
- In response to the aspirations of Sustainability Objectives 17 and 18, regarding protecting and creating landscape features on site, and also ensuring that the Garden Community is integrated within the existing rural landscape, there will be significant positive effects. This is due to the Plan ensuring a high standard of design and layout, drawing on its context and the assets within.
- There will be positive impacts associated with renewable energy and energy efficiency through principles that state that future work will endeavour to ensure that the Garden Community makes space for heat and power energy generation centres and hubs.
- Positive impacts are highlighted for flood risk (Sustainability Objective 21). Fluvial flood risk is not specifically mentioned within the Plan; however the retention of such areas is implied. Regarding surface water flood risk and the integration of SuDS (Sustainability Objective 22), positive impacts have been highlighted where the Plan states that, 'networks of drainage ditches will provide the framework for a sustainable drainage network.'
- The presence of a number of heritage assets within and adjacent to the site, most notably the Great Saling Conservation Area and the Registered Park and Garden to the north would require further additional protection and enhancement in the Plan. Uncertain impacts have been highlighted for Sustainability Objective 23 at this stage and it is recommended that the relationship between these assets and their settings with the wider landscape is recognised and elaborated on in future iterations of the Plan.
- There will be positive implications regarding those Sustainability Objectives related to open space management and ensuring an appropriate and desirable level of services and facilities, through effective community engagement and active stewardship once the Garden Community has been delivered.
- Theme 3 will ensure, indirectly, that the majority of the economic, social and environmental Sustainability Objectives will be met with positive outcomes. The Plan states that there is a '...desire of the public sector, represented by the two local Councils, to play a full and active role in the development of the Garden Community, and to participate in both the risks and the rewards of development, securing benefits for the wider communities.' With a preference for the formation of local Development Corporations to prepare masterplans and other guidance, the Plan and Council's aspire to offer truly sustainable outcomes.

6.1.2 Mitigation Measures and Recommendations regarding the Plan's Vision, Themes and Principles

The following key points can be made from the appraisal of the Plan's Vision, Themes and Principles:

- The Plan could elaborate in future iterations how these different types of housing could be integrated within the wider design of the Garden Community, in addition to affordable units, to ensure social inclusivity.
- It is recommended that this is included in future iterations in order to reflect the content of Policy SP10 of the Strategic Section One of Braintree's emerging Local Plan and Policy SP8 of the emerging Uttlesford Local Plan.
- Reference could be made, alongside notional measures to protect, the 'Pods Land' Protected Lane. Designated Protected Lanes are heritage assets and would likely need to be integrated into any new Garden Community.
- The suggestion of a clear grading of parking ratios based on public transport accessibility and housing density will need to be carefully scrutinised in order to ensure that design and parking space provision is not compromised by too heavy a reliance on the notion of modal shift.
- It is recommended that text as to specific areas of biodiversity creation and the enhancement of existing features is included within future iterations of the Plan.
- Regarding the 'Settlement-wide Landscape' sub-section of the Plan, which states that 'areas of habitat and Town Farm provide the stage for residents to directly engage with the landscape, and the flora and fauna it supports, both formally and informally'; this will need to be carefully managed to ensure no possible compromise of the status of habitats through recreational activity.
- The Plan does not specifically mention, within Theme 1, solutions surrounding the underlying London Clay and clay soils that can impede the rate of infiltration and in turn may limit the use of infiltration sustainable urban drainage systems on site. It is recommended that this be addressed.
- The presence of a number of heritage assets within and adjacent to the site, most notably the Great Saling Conservation Area and the Registered Park and Garden to the north would require further additional protection and enhancement in the Plan. Uncertain impacts have been highlighted for Sustainability Objective 23 at this stage and it is recommended that the relationship between these assets and their settings with the wider landscape is recognised and elaborated on in future iterations of the Plan.

6.2 The Plan's Spatial Boundary Options

6.2.1 Key Points from the Assessment of the Plan's Spatial Boundary Options

The following table sets out the impacts identified through the appraisal of the Plan's Spatial Boundary options.

Table 10: Summary of Impacts of the Plan's Spatial Boundary Options

Sustainability Objectives (SO)		Option 1: Combined Braintree and Uttlesford Local Plans Area	Option 2: Braintree Local Plan Area Only
ECONOMIC OBJECTIVES	1) To ensure that new employment and complimentary uses are suitably provided and located within the Garden Community.	0	0
	2) To ensure that new retail space is suitably provided and located within the Garden Community, with no subsequent harm to the retail function of Braintree town centre.	?/+	?/+
	3) To maximise existing linkages and strengths in the local economy.	+	+
	4) To minimise the loss of the best and most versatile agricultural land.	-	?/-
SOCIAL OBJECTIVES	5) To ensure sufficient accessible natural green space throughout the Garden Community to benefit the new community and the surrounding rural areas.	0	0
	6) To improve areas between existing settlements and new development and to ensure that there is no coalescence with existing settlements.	-	-
	7) To ensure that a range of services and facilities are included and suitably located within the Garden Community to maximise social inclusivity and to ensure safe, sustainable land use patterns that maximise accessibility between jobs, homes, services and facilities.	0	0
	8) To ensure a mix of housing types and tenures with as high a proportion of affordable units as possible.	0	0

Sustainability Objectives (SO)		Option 1: Combined Braintree and Uttlesford Local Plans Area	Option 2: Braintree Local Plan Area Only
	9) To ensure that provision for Gypsy and Traveller accommodation is appropriately located within the Garden Community with regard to access to services and social integration.	0	0
	10) To ensure the delivery of new schools and other supporting infrastructure to support the Garden Community.	0	0
	11) To maximise sustainable transport modes on site and to ensure effective links to existing off-site public transport services and interchanges.	-	-
	12) To ensure suitable access to and within the site and appropriate linkages to the existing road network that improves current conditions as far as possible.	++	++
	13) To ensure an appropriate level of car parking.	0	0
ENVIRONMENTAL OBJECTIVES	14) To ensure the design of new development is capable of maximising innovative forms of emerging utility-related technologies.	0	0
	15) To protect and enhance existing features of biodiversity through green corridors and ensure links between new habitats within the Garden Community and those that exist over a wider area.	-	?/-
	16) To ensure that recreational activity does not have negative effects on wildlife conservation and protection in the wider area.	0	0
	17) To ensure the protection, enhancement and creation of features of a landscape value throughout the Garden Community.	-	?/-
	18) To ensure that the Garden Community is integrated into and does not harm the existing rural landscape.	0	0
	19) To embrace sustainable forms of energy production and distribution.	0	0
	20) To ensure that there is no deterioration in water quality as a	-	-

Sustainability Objectives (SO)		Option 1: Combined Braintree and Uttlesford Local Plans Area	Option 2: Braintree Local Plan Area Only
	result of development.		
	21) To ensure that there is no increase in fluvial flood risk as a result of development.	?/+	?/+
	22) To ensure that the use of sustainable drainage systems are maximised throughout the development, with positive outcomes sought in regards to biodiversity gain and blue infrastructure networks.	?/-	?
	23) To protect, and where possible, enhance designated and non-designated heritage assets and their settings both above and below ground.	-	-

The following key points can be made from the appraisal of the Plan's Spatial Boundary Options:

- There will be uncertain / positive impacts on the retail function of the town of Braintree. Although positive impacts can reasonably be expected due to the close proximity of the options to the town centre; the lack of existing effective bus links to the centre and the similar ease of access to the strategic road network could see residents travelling to the larger centre of Chelmsford, or to Freeport
- Both options are in close proximity to employment in the town of Braintree and are accessible to the city of Chelmsford and London Stansted Airport wider afield. Skyline exists in close proximity to the south.
- Both options are within Grade 2 Agricultural Land which is classified as very good. A Contamination Report for the site to support the submission for consideration as a Local Plan allocation states that part of the Option 1 site can be classed as Brownfield due to historic WWII aviation uses at Andrewsfield. This part of the site has been classed as a Medium Risk due to facilities associated with its WWII use, including bomb storage area and Petrol Storage area.
- The landscape of the majority of the area has a moderate to relatively high sensitivity to change. The development proposal will alter the characteristics of Landscape Character Areas B13 (Rayne Farmland Plateau) and A12 (Pods Brook River Valley).
- Potential coalescence should be identified as a sustainability issue based on the red-line boundaries of the options. Issues surround the proximity of Rayne to the south east, and Great Saling to the north. Regarding Option 1 specifically, development in the area could also contribute to the coalescence of Stebbing Green in the south west.
- There are limited numbers of existing residential properties in the area of both options, however the small settlement of Blake End exists to the south west and is located adjacent to a junction corresponding to possible access to the Garden Community from the B1256.

- Both options do not benefit from an existing rail link and in addition links to the A120 and the strategic road network are likely to prove private car use attractive. Connecting the options with the Flitch Way could however provide direct links with Braintree and Braintree Railway Station.
- A limited existing bus network exists in close proximity to the site, currently setting down south of the site on the B1256 and providing an infrequent service to Chelmsford. A greater volume of buses currently serve Braintree town centre, however due to their current route pattern and the distance between the site and the town, accessibility by bus is poor.
- There are no AQMAs within or in close proximity to the site, however the southern parts of the site are within an area susceptible to poor air quality due to its proximity with a junction of the A120. Despite this, the majority of both options are not within an area of poor air quality.
- A number of possible transport improvements have been identified to date that could be made as a result of the development, including Improvements to the existing B1256 Dunmow Road/ A120 eastbound on-slip roundabout, upgrade to the B1417/B1256 junction from priority to roundabout, improvements to the Blake End Road/ A120 Junction/ link and the implementation of a new roundabout before the B1256/ Stebbing Green Junction.
- Both options lie within a SSSI Impact Risk Zone. The broad area of both options contains a number of LoWSs, with additional priority habitat woodland being present in Option 1 associated with Boxted Wood (a LoWS and Ancient Woodland) and Andrewsfield air strip. An Ecology Assessment undertaken considers that the majority of the site is of low Ecological value due to the dominance of intensively farmed arable crops; however acknowledges that there are habitats of higher ecological value on site and that these could be retained.
- A portion of Ancient Woodland is found in-situ within the site's boundaries in Option 1. A number of Public Rights of Way run across both options also and these should also be retained or otherwise enhanced.
- Both options have been identified as having the potential to impact on flows entering Stebbing Brook and the River Ter. There are water bodies across both options, particularly in the west / north west, but these are considered relatively insignificant in reflection of the scale of the options. The majority of the water courses classified by the Environment Agency as ecologically poor; both the Pods Brook and River Ter are failing to meet the Water Framework Directive target of good ecological status and are considered to be at risk of further deterioration in water quality. Further, both options are situated within a Drinking Water Safeguarding Zone and surface and groundwater nitrate vulnerability zones, however neither option is within a groundwater protection zone.
- There is an area of high fluvial flood risk through the centre of the options and to the east but this is confined to a narrow floodplain by topography. The eastern boundary of the site falls within Flood Risk Zones 2 and 3 following the Pods Brook. A Flood Risk Assessment undertaken for the site as submitted for consideration in the Districts' Local Plans deems flood risk however to be low risk.
- In regards to Surface Water Flood Risk, parts of the North West corner of the site and along the Pods Channel Brook are at a medium to high risk of surface water flooding.
- There are a number, albeit relatively low in consideration of the scale of the options, of Listed Buildings across the wide area. These are predominantly clustered at three locations: Parkes

Farm, Blake House Farm and Pound Farm.

- A Protected Lane, 'Pods Lane,' bisects both options from north to south along two stretches in the eastern part of the site. There is also a Registered Park and Garden at Saling Grove to the immediate north of both options.
- The site abuts the Conservation Area of Great Saling on its northern boundary.
- Further assessment highlights elements of the WWII airfield that also survive. Below ground, there is also a known Roman villa site within the site in the area of Boxted Wood and the potential for earthworks within the Ancient Woodland.

6.2.2 Mitigation Measures and Recommendations regarding the Plan's Spatial Boundary Options

The following key points can be made from the appraisal of the Plan's Vision, Themes and Principles:

- The smaller Option 2 is considered to have fewer potential negative impacts at this stage. Option 1 is assessed as having comparably more negative implications due to an increased likelihood of negative impacts associated with nature conservation and heritage assets (and associated landscape features) to the western boundary of the option, largely singularly representing the inclusion of Boxted Wood. Both options will need to address the presence of heritage assets throughout the area, and also off-site to the north associated with the Conservation Area of Great Saling which contains a range of listed buildings as well as the Registered Park and Garden of Saling Grove. It is recommended that enhancements are sought at the design and masterplanning stage with assets factored into the Garden Community. It is also recommended that a buffer separation be ensured through masterplanning to minimise certain impacts on existing communities, specifically in relation to residents in Great Saling, Stebbing Green and Blake End.

6.3 Impacts of the Plan as a Whole

The Plan includes a series of Themes and Principles that can negate or seek to mitigate some of those on-site impacts that have been identified in the appraisal of the Garden Community spatial boundary options.

The assessment of the spatial boundary options has been undertaken from a 'policy off' point of view; impacts are identified without any consideration of the Plan's thematic content or principles at present. This section explores those instances where impacts can be negated or mitigated through the Plan as a whole.

Issue identified in the appraisal of the Garden Community Spatial Boundary Options	Is the issue addressed in the Plan's Themes and Principles?
Part of the Option 1 site is at a Medium Risk of contamination due to facilities associated with the WWII use of Andrewsfield airfield, including bomb storage area and Petrol Storage area.	The Plan does not mention the potential for mitigation at Andrewsfield airfield. It is recommended that this elaborated on in future iterations of the Plan.
Potential coalescence issues surround the proximity of Rayne to the south east, Great Saling to the north, Stebbing Green in the south west and Blake End in the south.	The Plan seeks to ensure the retention of a 'green gap' between the new Garden Community and the surrounding villages and towns, to avoid coalescence and maintain settlement identity. The Plan adds that, 'It is important to remember that where green buffers are needed to prevent the coalescence of the Garden Community with existing settlements and preserve the character and identity of surrounding villages from new development, the land required to accommodate these buffers will need to be contained within the boundary of the Garden Community. By including green buffers in the Garden Community boundary the land can be protected in perpetuity from built development whereas such a safeguard could not be imposed on land outside of its boundary. This is the reason why the Garden Community boundary will need to be in close proximity to Great Saling, Rayne and Stebbing Green.'
Options do not benefit from an existing rail link	The Plan states that, 'A future Rapid Transit System serving the Garden Community could take the form of strategic light rail, tram-train, or a guided or priority bus service which could link the site up to London Stansted Airport to the west and Harwich (via Colchester) to the east.' Additionally, the Plan states that, 'the development of the Garden Community

Issue identified in the appraisal of the Garden Community Spatial Boundary Options	Is the issue addressed in the Plan's Themes and Principles?
	presents an opportunity to heavily invest in public transport infrastructure in the area, providing high quality and high frequency services within the site and to and from existing destinations, including transport hubs within Braintree, Saffron Walden, Great Dunmow and through the proposed Easton Park Garden Community to London Stansted Airport.'
A limited existing bus network exists in close proximity to the site.	The Plan states that, 'through considerable upgrading of route frequency and vehicle provision, a number of existing and future routes could serve as local connections between the site, the local settlements and the towns of Chelmsford, Great Dunmow, and Braintree. It could also underpin local movement within the settlement via a segregated Rapid Transit System, connecting residential uses with employment, schools and amenities. This could also importantly connect to the new strategic bus interchange within the site located adjacent to the A120. The bus network would provide a complete 400m and 800m catchment area across the site, meaning residential areas are within the identified 10 minute walking distance to ensure connectivity and encourage the highest levels of public transport take-up possible.'
The southern parts of the site are within an area susceptible to poor air quality due to its proximity with a junction of the A120.	Although not considered directly, the Plan seeks to ensure that landscape buffers are incorporated in peripheral areas of the Garden Community. The on-site use of landscaping elements, screening devices, open space, drainageways and landforms reduce potentially adverse impacts of adjoining, dissimilar land uses.
The broad area of both options contains a number of LoWSs, with additional priority habitat woodland being present in Option 1 associated with Boxted Wood (a LoWS and Ancient Woodland) and Andrewsfield air strip.	The Plan states that, 'The site's existing ecological assets, such the woodlands and local wildlife sites identified, will be obvious areas to protect and integrate into the Garden Community's green infrastructure. As well as protecting existing ecologically valuable sites there will be opportunities to enhance them through green corridors which in turn

Issue identified in the appraisal of the Garden Community Spatial Boundary Options	Is the issue addressed in the Plan's Themes and Principles?
	can be linked to new habitats within the development.'
<p>Numerous landscape features exist on site and within both options. A portion of Ancient Woodland is found in-situ within the site's boundaries in Option 1. A number of Public Rights of Way run across both options</p>	<p>The Plan states that, 'connections to the existing and protected leisure based bridleways, trails and Public Rights of Way on Flitch Way and Pods Lane, with upgrades to the existing pedestrian bridge over the A120 and B1256, would ensure a direct connection and interface with the southern edge of the site.'</p>
<p>The majority of the water courses classified by the Environment Agency as ecologically poor</p>	<p>The Plan states that, 'the Pods Brook valley provides a natural edge to the potential development. Enhancement and active management of the vegetation in and around the Brook and reinstating the natural route of the water course could help establish a green corridor that both the ecological and water quality.'</p>
<p>Parts of the North West corner of the site and along the Pods Channel Brook are at a medium to high risk of surface water flooding.</p>	<p>The Plan states that, 'Networks of drainage ditches will provide the framework for a sustainable drainage network. The underlying geology and soil structure favour attenuation sustainable urban drainage systems (SuDS) that could be used to create attractive ponds on site that could be both an ecological resource or used to store water for reuse on site.'</p>
<p>There are a number, albeit relatively low in consideration of the scale of the options, of Listed Buildings across the wide area. These are predominantly clustered at three locations: Parkes Farm, Blake House Farm and Pound Farm.</p>	<p>The Plan states that, 'whilst the growth of the Garden Community will result in substantial new built development in the area, new built form will have to respond positively to its location and this includes respecting, and where possible, enhancing the presence of heritage assets and their settings. There are therefore opportunities to accommodate listed buildings into Garden Community in a manner which responds to the special characteristics and features of their listing. This could include using complementary designs in their vicinity or suitable amounts of buffer space to provide an organic and seamless townscape.'</p>

Issue identified in the appraisal of the Garden Community Spatial Boundary Options	Is the issue addressed in the Plan's Themes and Principles?
<p>A Protected Lane, 'Pods Lane,' bisects both options from north to south along two stretches in the eastern part of the site.</p>	<p>The Plan does not include measures for the Protected Lane's protection or retention. It is recommended that this elaborated on in future iterations of the Plan.</p>
<p>There is a Registered Park and Garden at Saling Grove to the immediate north of both options. The site also abuts the Conservation Area of Great Saling on its northern boundary.</p>	<p>The Plan states that, 'Great Saling Hall's Conservation Area and its Historic Parks and Gardens status warrants special attention and the planning of the areas around this important heritage asset could provide an opportunity to enhance its significance and raise its profile as a local attraction.' It adds that, 'There are clearly blocks of sensitive landscape and locations where the relationship of new built development with open areas of countryside, and other settlements (e.g. Great Saling and its conservation area), require a sensitive design response.'</p>
<p>Below ground, there is a known Roman villa site within the site in the area of Boxted Wood and the potential for earthworks within the Ancient Woodland.</p>	<p>Although the Roman Villa at Boxted Wood is identified as an issue within the Plan, the Plan does not specifically mention measures to ensure archaeology is sensitively treated on site. It is recommended that this elaborated on in future iterations of the Plan.</p>

7. Next Steps & Monitoring

7.1 Consultation

This Scoping and Environmental Report will be subject to consultation alongside the West of Braintree Garden Community Plan. There are three statutory consultees or ‘environmental authorities’ that are required to be consulted for all Sustainability Appraisal and Strategic Environmental Assessment documents. These are:

- The Environment Agency;
- Natural England; and
- Historic England.

In addition to these, consultation will seek to engage the wider community in order to encompass comprehensive public engagement. Braintree District Council and Uttlesford District Council may additionally wish to invite comments from focussed groups, relevant stakeholders and interested parties. The detailed arrangements for consultation are to be determined by the two Local Planning Essex Authorities. The environmental authorities and public are to be given ‘an early and effective opportunity’ within appropriate time-frames to express their opinion. This includes the specific notification of the consultation documents and timeframes to those persons or bodies on the ‘consultation databases’ of the two Local planning Authorities.

PLEASE NOTE:

All comments on the content of this Environmental Report should be sent to each authority’s online portal in line with the consultation arrangements of each Local planning Authority. Where consultation periods differ between each authority, the following links may need to be checked once consultation periods are live.

Comments should be focused on the detail of this SA that pertains to land use implications or issues relevant to each local authority area.

Please check the following links for more information, and direction to relevant consultation portals:

Regarding Braintree District Council:

https://www.braintree.gov.uk/info/200137/consultations/96/contribute_to_a_council_consultation

Regarding Uttlesford District Council:

<https://www.uttlesford.gov.uk/article/3940/Current-consultations>



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