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# **Additional Sustainability Appraisal of North Essex Section 1 Local Plan**

## **Non-Technical Summary**

Prepared by LUC  
July 2019

**Project Title:** North Essex Section 1 Local Plan Additional Sustainability Appraisal

**Client:** North Essex Authorities

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# Additional Sustainability Appraisal of North Essex Section 1 Local Plan

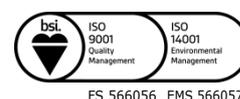
## Non-Technical Summary

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# 1 Non-technical summary of the Additional SA of the North Essex Section 1 Local Plan

## Background

- 1.1 This document is a Non-Technical Summary of the Additional Sustainability Appraisal (SA) of the North Essex Section 1 Local Plan.
- 1.2 The North Essex Authorities (NEAs) comprise Braintree District Council, Colchester Borough Council, and Tendring District Council. The NEAs, have prepared a shared, strategic level plan which is intended to form part of the Local Plan for each of the NEAs. Specifically, the shared plan comprises 'Section 1' of each authority's Local Plan. Section 2 of each authority's Local Plan contains more specific and detailed policies and will be examined following the adoption of the Section 1 Local Plan.
- 1.3 The Publication Draft of the North Essex Section 1 Local Plan (hereafter, 'the Section 1 Local Plan') was submitted to the Secretary of State for examination on 9th October 2017. The examination hearings took place between 16th January 2018 and 9th May 2018. Following the hearings the Inspector concluded that the Section 1 Local Plan was not sound in its current form. The Inspector wrote to the NEAs in June 2018<sup>1</sup>, advising them of the further steps required in order for the Section 1 Local Plan to be made sound and legally compliant. Several shortcomings were identified by the Inspector in relation to the SA<sup>2</sup> of the Section 1 Local Plan, as discussed below.
- 1.4 In response to the shortcomings of the original SA, the NEAs commissioned LUC in 2018 to carry out Additional SA work with respect to Section 1 of the Local Plan. The Inspector's concerns relate to the SA of alternative Garden Communities and of alternative spatial strategies including non-Garden Communities options. The Additional SA was therefore limited to addressing these concerns and as such forms an addendum to, and should be read in conjunction with, the SA of the Section 1 Local Plan<sup>3</sup> as a whole.

## Shortcomings of the earlier SA work

- 1.1 Following the commencement of the Section 1 Local Plan's Examination and initial hearing sessions, the Inspector wrote to the NEAs expressing concerns regarding the SA work undertaken prior to the submission of the Section 1 Local Plan<sup>4</sup> - with respect to three main 'shortcomings':
  - **Objectivity of the SA:** the Inspector identified potential inconsistencies in the scoring of the alternative spatial strategies, and the use of evidence underpinning the SA scores, stating that *"the authors of the SA report have generally made optimistic assumptions about the benefits of the GCs [Garden Communities], and correspondingly negative assumptions about the alternatives, without evidence to support many of those assumptions. As a result these assessments lack the necessary degree of objectivity and are therefore unreliable"*.

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<sup>1</sup> Clews, R. (2018) Letter to Emma Goodings (Braintree DC), Karen Syrett (Colchester BC), and Gary Guiver (Tendring DC), 8 June.

<sup>2</sup> Under the Planning and Compulsory Purchase Act 2004, SA is mandatory for Development Plan Documents. For these documents it is also necessary to conduct an environmental assessment in accordance with the requirements of the Strategic Environmental Assessment (SEA) Directive (European Directive 2001/42/EC). Therefore, it is a legal requirement for Section 1 of the shared Publication Draft Local Plan to be subject to SA and SEA throughout its preparation.

The requirements to carry out SA and SEA are distinct, although it is possible to satisfy both using a single appraisal process (as advocated in the national Planning Practice Guidance), whereby users can comply with the requirements of the SEA Directive through a single integrated SA process – this is the process that is being undertaken in this case, and therefore within this report, the term 'SA' should be taken to mean 'SA incorporating the requirements of the SEA Directive'.

<sup>3</sup> Place Services (June 2017) North Essex Authorities Strategic Section One for Local Plans: Draft Publication (Regulation 19) Sustainability Appraisal (SA).

<sup>4</sup> *ibid.*

- **Clarity of the alternatives and reasons for selection:** the Inspector raised concerns regarding the difficulty of understanding the descriptions of the Garden Community options, the rationale for choosing particular alternatives, and the assumptions underpinning the rejection of the reasonable alternatives, including providing significant numbers of dwellings at or around existing settlements.
  - **Selection of the Garden Communities and combinations for assessment:** the Inspector identified some confusion with respect to the basis upon which Monks Wood was assessed as a Garden Community option, and questioned the conclusions of the SA with respect to different scales of growth at this location. Similarly, the Inspector challenged the rationale behind the combinations of alternatives and the reasons for selecting the preferred combination and rejecting others. The Inspector is of the view that equivalent assessments of the combinations were not comprehensive.
- 1.2 The Inspector also drew attention to issues regarding the minimum size threshold of the Garden Communities assessed in the SA, but concluded that the SA provided adequate reasons for a 5,000 dwelling threshold.
- 1.3 The Inspector concluded that:
- "It has not been demonstrated that the chosen spatial strategy is the most appropriate one when considered against the reasonable alternatives, as the tests of soundness require".*
- 1.4 He suggested that the following two stages of SA work would be required to rectify the shortcomings:
- (1) Carry out an objective comparison of individual Garden Community site options at a range of different sizes. Adequate reasons will need to be given for taking forward or rejecting each of the GC options assessed.
  - (2) Assess alternative spatial strategies for the Section 1 Local Plan area, using a clear rationale of the alternative spatial strategies and descriptions of them. As a minimum the spatial strategy alternatives should include proportionate growth at and around existing settlements, CAUSE's Metro Town proposal, and one, two or more Garden Communities, depending on the outcomes of the first stage assessment.
- 1.5 Prior to embarking on the Additional SA work, the Inspector recommended that the NEAs re-examine the evidence base for any Garden Community proposals they wish to assess, especially with regard to viability, the provision of transport infrastructure and employment opportunities. The Inspector recommended that there should be liaison with CAUSE to ensure that their Metro Town proposal is fully understood and assessed appropriately, and similar liaison with the promoters of the Garden Community site options where necessary.
- 1.6 The Inspector also stated that, for the spatial strategy alternatives:
- Explicit assumptions should be made about the amount of development each option would involve, both at Garden Communities and elsewhere, and the broad locations for that development.
  - For the options involving Garden Communities, each of the individual site options that survive the first-stage assessment, and each feasible combination of those surviving site options, should be assessed.
  - Options including one or two Garden Communities should also include appropriate corresponding levels of proportionate growth at existing settlements.
- 1.7 In order to address these concerns of the Inspector, a two-stage methodology involving the application of new SA criteria and a renewed approach to the identification of potential strategic development sites was developed for the Additional SA, as described in the Methodology section.

## Relationship of the Additional SA Report with the original SA Report

- 1.8 This Additional SA Report is intended to supplement the earlier SA work. The primary purpose of the Additional SA is to provide a consistent and objective appraisal of alternative strategic sites and alternative spatial strategies to those included in the Section 1 Local Plan under Policy SP2

'Spatial Strategy for North Essex', and the three garden communities presented in Policies SP7 to SP9, rather than to re-appraise the strategic policies themselves.

- 1.9 Should any modifications be proposed to the Section 1 Local Plan in light of the Additional SA and the provision of other evidence to inform the examination, these will be subject to SA and consultation at a later date, and prior to adoption of the Section 1 Local Plan.
- 1.10 The Additional SA Report primarily replaces the following section of the original SA Report:
  - Appendix 1 'Appraisal of the Garden Community Options and Alternative Permutations'.
- 1.11 Although not a direct and comprehensive replacement, the Additional SA also provides further appraisal information in relation to other chapters of the original SA Report.

## Methodology

- 1.12 In response to the Inspector's recommendations, the Additional SA of the North Essex Section 1 Local Plan followed a two stage process:
  - Stage 1 appraised strategic sites that could form part of alternative spatial strategies for the Section 1 Local Plan.
  - Stage 2 appraised alternative spatial strategies.
- 1.13 The SA of the strategic sites, which fed into the SA of the spatial strategies, was undertaken in a consistent and objective way, using assumptions for the SA objectives that were applied in the same way for all strategic sites, using the same evidence base.
- 1.14 In carrying out the SA of the spatial strategies, an element of professional judgement was required to interpret the findings of the individual strategic sites when combined into a spatial strategy, and taking into account existing commitments, Section 2 Local Plan allocations, and strategic infrastructure requirements.
- 1.15 The approach to each of these stages is described in more detail below.

## Sustainability context and baseline

- 1.16 The original SA report prepared by Place Services set out the sustainability context for the Section 1 Local Plan and the SA set by other policies, plans and programmes. It also provides a description of the current state of the environment and its likely future evolution in the absence of the Section 1 Local Plan. This information continues to form a suitable basis for the identification of the key sustainability issues facing the Plan area which, together with the sustainability policy context, provided the basis for defining the sustainability objectives that provide the framework for the original and Additional SA (see Table 1.1). Each alternative strategic site and each alternative spatial strategy was appraised in relation to its likely effects in relation to the sustainability objectives set out in this SA framework.
- 1.17 While the key issues facing the Plan area remained unchanged since the original SA work, where more recent evidence had emerged since that work, this was referred to as relevant in the Additional SA work.

**Table 1.1: SA framework**

SA objective	Appraisal questions
1. Create safe environments which improve quality of life, community cohesion	<ul style="list-style-type: none"> <li>• Does it seek to improve / supply community facilities for young people?</li> <li>• Does it seek to increase cultural activities or suitable development to stimulate them?</li> <li>• Does it seek to support cultural identity and social inclusion?</li> <li>• Will there be measures to increase the safety and security of new development and public realm?</li> </ul>

SA objective	Appraisal questions
2. To ensure that everyone has the opportunity to live in a decent, safe home which meets their needs at a price they can afford	<ul style="list-style-type: none"> <li>• Will it increase the range and affordability of housing to support the growing population and for all social groups?</li> <li>• Does it respond to the needs of an ageing population?</li> <li>• Does it seek to provide appropriate rural affordable housing?</li> <li>• Will it deliver well designed and sustainable housing?</li> <li>• Will it contribute to meeting Gypsy and Traveller pitch requirements of the GTAA?</li> </ul>
3. Improve health/reduce health inequalities	<ul style="list-style-type: none"> <li>• Will it ensure access to health facilities?</li> <li>• Will it ensure access to sport and recreation facilities, open space and accessible green space?</li> <li>• Will it encourage access by walking or cycling?</li> </ul>
4. To ensure and improve the vitality & viability of centres	<ul style="list-style-type: none"> <li>• Does it seek to prevent loss of retail and other services in rural areas?</li> <li>• Does it promote and enhance the viability of existing centres by focusing development in such centres?</li> <li>• Does it seek to locate development in close proximity to town centres?</li> <li>• Does it seek to located development within easy public travelling distance to town centres?</li> <li>• Does it seek to improve public transport networks to town centres?</li> </ul>
5. To achieve a prosperous and sustainable economy that creates new jobs, improves the vitality and viability of centres and captures the economic benefits of international gateways	<ul style="list-style-type: none"> <li>• Will it improve the delivery of a range of employment opportunities to support the growing population?</li> <li>• Will it tackle employment associated deprivation?</li> <li>• Will it enhance the area's potential for tourism?</li> <li>• Will it promote development of the ports?</li> <li>• Will it encourage the rural economy and diversification of it?</li> <li>• Will it support business innovation, diversification, entrepreneurship and changing economies?</li> <li>• Does it seek to improve existing training and learning facilities and/or create more facilities?</li> <li>• Will the employment opportunities available be mixed to suit a varied employment skills base?</li> </ul>
6. To value, conserve and enhance the natural environment, natural resources, biodiversity and geological diversity	<ul style="list-style-type: none"> <li>• Will development have a potential impact on a national, international or European designated site (SPA, SAC, Ramsar, SSSI)?</li> <li>• Will it maintain and enhance sites otherwise designated for their nature conservation interest?</li> <li>• Will it conserve and enhance natural/semi natural habitats?</li> <li>• Will it conserve and enhance species diversity, and in particular avoid harm to indigenous BAP priority species?</li> </ul>
7. To achieve more sustainable travel behaviour, reduce the	<ul style="list-style-type: none"> <li>• Will it increase and/or improve the availability and usability of sustainable transport modes?</li> </ul>

SA objective	Appraisal questions
need to travel and reduce congestion	<ul style="list-style-type: none"> <li>• Will it seek to encourage people to use alternative modes of transportation other than private vehicle?</li> <li>• Will it lead to the integration of transport modes?</li> <li>• Will it improve rural public transport?</li> <li>• Does it seek to increase the uptake or viability of walking and cycling as methods of transportation, through new infrastructure or integration?</li> </ul>
8. To promote accessibility, ensure that development is located sustainably and makes efficient use of land, and ensure the necessary infrastructure to support new development	<ul style="list-style-type: none"> <li>• Will it contribute positively to reduce social exclusion by ensuring access to jobs, shopping, services and leisure facilities for all?</li> <li>• Does it seek to concentrate development and facilities where access via sustainable travel is greatest?</li> <li>• Does it seek to minimise congestion at key destinations / areas that witness a large amount of vehicle movements at peak times?</li> <li>• Would the scale of development require significant supporting transport infrastructure in an area of identified need?</li> <li>• Will it ensure adequate school places (through expansion / new facilities) and early years provision to support growth?</li> <li>• Will it ensure the required improvements to utilities infrastructure?</li> <li>• Will it ensure the required improvements in capacity to GP services?</li> <li>• Will it provide a suitable amount of sports, recreational, leisure and open space facilities?</li> </ul>
9. To conserve and enhance historic and cultural heritage and assets and townscape character?	<ul style="list-style-type: none"> <li>• Will it protect and enhance designations, features and areas of historical, archaeological and cultural value in both urban and rural areas?</li> <li>• Will it have a negative impact on the significance of a designated historic environment asset or its setting?</li> <li>• Does it seek to enhance the range and quality of the public realm and open spaces?</li> <li>• Will it reduce the amount of derelict, degraded and underused land?</li> <li>• Does it encourage the use of high quality design principles to respect local character?</li> <li>• Will / can any perceived adverse impacts be reduced through adequate mitigation?</li> </ul>
10. To make efficient use of energy and reduce contributions to climatic change through mitigation and adaptation.	<ul style="list-style-type: none"> <li>• Will it reduce emissions of greenhouse gases by reducing energy consumption?</li> <li>• Will it lead to an increased generation of energy from renewable sources?</li> <li>• Will it encourage greater energy efficiency?</li> <li>• Will it improve the efficient use of natural resources, minimising waste and promoting recycling?</li> </ul>
11. To improve water quality and address water scarcity and sewerage capacity	<ul style="list-style-type: none"> <li>• Will it lead to no deterioration on the quality of water bodies?</li> <li>• Will water resources and sewerage capacity be able to accommodate growth?</li> </ul>
12. To reduce the risk	<ul style="list-style-type: none"> <li>• Does it promote the inclusion of Sustainable Drainage Systems</li> </ul>

SA objective	Appraisal questions
of fluvial, coastal and surface water flooding	<p>(SuDS) in new developments and will their integration be viable?</p> <ul style="list-style-type: none"> <li>Does it seek to avoid development in areas at risk of flooding (fluvial, coastal, surface water)?</li> <li>Does it seek to avoid increasing flood risk (fluvial, surface water, groundwater) in areas away from initial development?</li> </ul>
13. To improve air quality	<ul style="list-style-type: none"> <li>Will it improve, or not detrimentally affect air quality along the A12 or A120?</li> <li>Does it direct growth away from AQMAs?</li> <li>Does it seek to improve or avoid increasing traffic flows generally?</li> </ul>
14. To conserve and enhance the quality of landscapes	<ul style="list-style-type: none"> <li>Will landscapes sensitive to development be protected?</li> <li>Will it lead to rural expansion or development outside development boundaries/limits that increases coalescence with neighbouring settlements?</li> <li>Is the scale / density of development in keeping with important and valued features of the local landscape?</li> </ul>
15. To safeguard and enhance the quality of soil and mineral deposits?	<ul style="list-style-type: none"> <li>Will it avoid the loss of high quality agricultural land?</li> <li>Will it avoid the sterilisation of mineral deposits / is the site within a Minerals Safeguarding Area (MSA)?</li> <li>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?</li> </ul>

### The approach to Stage 1: Appraisal of alternative strategic sites

- 1.18 The Stage 1 appraisal of alternative strategic sites was initially carried out in two steps:
- Stage 1a** comprised an appraisal of the principle of housing-led development at each alternative strategic site on its own merits, i.e. an appraisal of the geographical location in relation to existing key services, facilities, employment locations, transport links, and environmental assets and constraints without considering what the development itself might deliver.
  - Stage 1b** then took into account how the accessibility to key services, facilities, employment locations, and transport links identified by Stage 1a would be modified if standard assumptions were made about what is likely to be provided as part of development coming forward at different scales of development. The Stage 1a appraisal of effects on environmental assets was unaffected by Stage 1b.
- 1.19 To facilitate an objective, transparent, and consistent appraisal of alternative strategic sites during Stages 1a and 1b, a series of spatially-based criteria was developed and applied in a geographic information system (GIS) to examine the locations of alternative strategic sites in relation to:
- local infrastructure facilities, to inform judgements on whether the services these provide would be readily accessible on foot to residents of new developments; and
  - environmental assets, to inform judgements on the risk of harm to these from new developments.
- 1.20 Consultation comments received on the Stage 1 method indicated the need to vary some of the standard assumptions made in Stage 1b and to make some of them more site-specific. In addition, draft appraisal results from Stage 1b showed little differentiation between sites and indicated the need for a wider range of evidence to be taken into account when assessing sites, a

view supported by consultation comments received on the Stage 1 method. In response, Stage 1b was replaced by a more detailed 'Stage 1c' appraisal of sites:

- **Stage 1c** replaced standard assumptions about what is likely to be provided as part of development coming forward at different scales of development with site-specific assumptions drafted by the NEAs and confirmed with site promoters and CAUSE<sup>5</sup> via 'site information forms'. The spatial tests carried in GIS at Stage 1a were supplemented with information gathered from a wider range of evidence sources and brought together to form a judgement on the likely significance of effects of each alternative strategic site in relation to each SA objective.

- 1.21 In Stage 1a, each alternative strategic site location was assessed against spatial criteria relating to:
- access to services, facilities, transport and centres of employment; and
  - risk of environmental harm.
- 1.22 This resulted in a score being awarded to each site location in relation to each assessment criterion. The scores achieved by alternative development locations against the individual assessment criteria provided an initial indication of whether development for housing use in the proposed location would be consistent with achievement of the related sustainability objectives and also fed into the subsequent, more detailed Stage 1c site assessments. The spatially-based appraisal criteria were linked to the existing framework of SA objectives.
- 1.23 Alternative strategic sites were assessed at different reasonable alternative housing capacities but a single site boundary was tested for each site, large enough to accommodate the largest capacity option for that site.
- 1.24 Large developments can take many years to fully build out and in some cases it may be that a significant proportion would remain to be built at the end of the Plan period. To ensure a consistent approach to the assessment of the effects of development expected to take place beyond the end of the Plan period, all locations were assessed in their entirety (taking account of all development, including that to be delivered beyond the end of the Plan period) during Stage 1b. Stage 1c and Stage 2 also considered what is likely to be delivered within the Plan period.
- 1.25 The potential benefits of provision of strategic transport infrastructure were not assumed in coming to a conclusion on the effects of any individual sites in Stage 1; consideration of this was deferred to Stage 2 on the basis that sensible assumptions on what is likely to be provided can only be made at the scale of spatial strategy alternatives rather than individual sites.

#### *Scoring system*

- 1.26 Scores were attributed to each alternative strategic site during Stage 1c of the SA and to each spatial strategy alternative during Stage 2 of the SA to indicate its likely effects in relation to each SA objective (see Table 1.2). Where a potential positive or negative effect was uncertain, a question mark was added to the relevant score (e.g. +? or -?) and the score was colour coded as per the potential positive, negligible or negative effect (green, yellow, orange, etc.). For some SA objectives, mixed effects may occur as more than one factor was taken into account during the assessment. In such cases, mixed effects were recorded with one element of the score relating to each factor, for example '+/-' or '+ +/+ '.

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<sup>5</sup> CAUSE have stated that they are not land promoters or site promoters and have no interest in any land. Instead they wish to be recognised as a group with an alternative Local Plan strategy which they wish the local authorities to investigate.  
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**Table 1.2: Key to scoring used in the Stage 1c SA of alternative strategic sites**

++	Significant positive effect likely
++/-	Mixed significant positive and minor negative effects likely
+	Minor positive effect likely
++/--	Mixed significant effects likely
+/-	Mixed minor effect likely
-	Minor negative effect likely
--/+	Mixed significant negative and minor positive effects likely
--	Significant negative effect likely
?	Potential for a significant effect but uncertain whether it will be positive or negative or insufficient information to assess effect
0	Negligible effect likely

**Identification of sites to be assessed**

- 1.27 Stage 1c appraised alternative strategic sites at a range of alternative, fully built dwelling capacities, as well as at the scale of the development expected to be achieved by the end of the Plan period (2033), for those sites not expected to be fully built by this time. The sites assessed are set out in Table 1.3.

**Table 1.3: Alternative strategic sites appraised in Stage 1 SA**

Site ref	Option Name	<b>Site ref and housing capacity options</b> Promoter preferred capacity <u>underlined</u> if known * Max by end of plan period
ALTGC2	Land East of Silver End	<u>ALTGC2a 1,800</u> ALTGC2b 2,500*
ALTGC3	Monks Wood	ALTGC3a 2,000 ALTGC3b 2,500* <u>ALTGC3c 5,500</u> ALTGC3d 13,500
ALTGC4	Land at Marks Tey Option One	ALTGC4a 2,000 ALTGC4b 2,500* <u>ALTGC4c 17,000</u> ALTGC4d 21,000
ALTGC6	Land at Marks Tey Option Three	ALTGC6a 2,000 ALTGC6b 2,500* <u>ALTGC6c 3,500</u> ALTGC6d 5,000
ALTGC7	Land at East of Colchester Option One	ALTGC7a 2,000 ALTGC7b 2,500* <u>ALTGC7c 4,000</u>
ALTGC8	Land at East of Colchester Option Two	ALTGC8a 2,000
ALTGC9	Land at East of Colchester Option Three	ALTGC9a 2,000 ALTGC9b 2,500* ALTGC9c 3,000
ALTGC10	Land at East of Colchester Option Four	ALTGC10a 2,000 ALTGC10b 2,500* ALTGC10c 4,500
ALTGC11	Langham Garden Village	ALTGC11a 2,000 ALTGC11b 2,500* ALTGC11c 5,000
C1	CAUSE Alresford	C1a 700 C1b 2,000 (CAUSE recommended maximum) C1c 2,500 (theoretical maximum, based on site capacity)

Site ref	Option Name	<b>Site ref and housing capacity options</b> Promoter preferred capacity <u>underlined</u> if known * Max by end of plan period
C2	CAUSE Great Bentley	C2a 700 C1b 2,000 (CAUSE recommended maximum) C1c 2,500 (theoretical maximum, based on site capacity)
C3	CAUSE Weeley	C3a 700 C1b 2,000 (CAUSE recommended maximum) C1c 2,500 (theoretical maximum, based on site capacity)
C4	CAUSE Thorpe-le-Soken	C4a 700 C1b 2,000 (CAUSE recommended maximum) C1c 2,500 (theoretical maximum, based on site capacity)
NEAGC1	West of Braintree	NEAGC1a 2,000 NEAGC1b 2,500* NEAGC1c 5,500 NEAGC1d 7,500 <u>NEAGC1e 10,000</u>
NEAGC2	Colchester Braintree Borders Garden Community (Marks Tey)	NEAGC2a 2,500* NEAGC2b 5,500 NEAGC2c 15,000 <u>NEAGC2d 21,000</u> NEAGC2e 27,000
NEAGC3	Tendring Colchester Borders Garden Community	NEAGC3a 2,000 NEAGC3b 2,500* <u>NEAGC3c 7,500</u> NEAGC3d 8,000
SUE1	Land at Halstead	SUE1a 2,000 SUE1b 2,500* <u>SUE1c 6,000</u> SUE1d 8,500
SUE2	Land East of Braintree (including Temple Border)	SUE2a 2,000 SUE2b 2,500* <u>SUE2c 5,000</u> *Site promoter notes capacity is less than 5,000

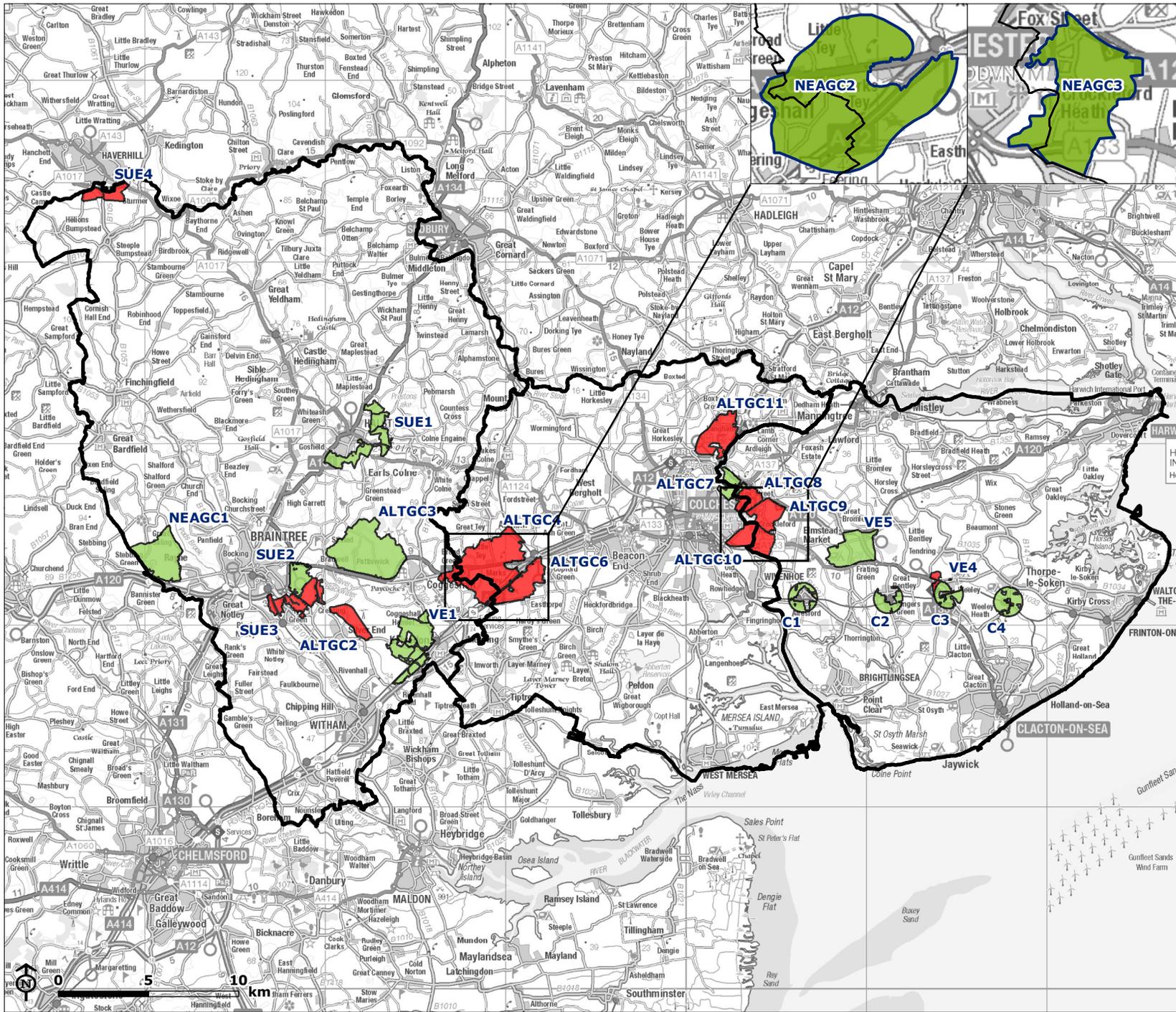
Site ref	Option Name	<b>Site ref and housing capacity options</b> Promoter preferred capacity <u>underlined</u> if known * Max by end of plan period
SUE3	Land South East of Braintree	SUE3a 2,000 SUE3b 2,500* <u>SUE3c 5,000</u> SUE3d 12,500
SUE4	Land South of Haverhill	SUE4a 2,000 SUE4b 2,500* <u>SUE4c 3,500</u>
VE1	Land at Kelvedon	VE1a 2,000 VE1b 2,500* <u>VE1c 5,000</u> VE1d 17,000
VE4	Weeley Garden Village	VE4a 2,000
VE5	Tendring Central Garden Village	VE5a 2,000 VE5b 2,500* <u>VE5c 4,500</u>



## North Essex Local Plan Section 1 Additional Sustainability Appraisal

**Figure 1.1: Strategic sites taken forward for inclusion in spatial strategy alternatives**

-  North Essex Authority Boundaries
  -  Site taken forward
  -  Site not taken forward
- ALTGC2: Land east of Silver End  
 ALTGC3: Monks Wood  
 ALTGC4: Land at Marks Tey Option 1  
 ALTGC6: Land at Marks Tey Option 3  
 ALTGC7: Land east of Colchester Option 1  
 ALTGC8: Land east of Colchester Option 2  
 ALTGC9: Land east of Colchester Option 3  
 ALTGC10: Land east of Colchester Option 4  
 ALTGC11: Langham Garden Village  
 C1: CAUSE Alresford  
 C2: CAUSE Great Bentley  
 C3: CAUSE Weeley  
 C4: CAUSE Thorpe-le-Soken  
 NEAGC1: Land west of Braintree  
 NEAGC2: Colchester Braintree Borders  
 NEAGC3: Tendring Colchester Borders  
 SUE1: Land at Halstead  
 SUE2: Land east of Braintree  
 SUE3: Land south east of Braintree  
 SUE4: Land south of Haverhill  
 VE1: Land at Kelvedon  
 VE4: Weeley Garden Village  
 VE5: Tendring Central Garden Village



Source: BDC, CBC, TDC, LUC

Map Scale @ A4: 1:300,000



**The approach to Stage 2: Appraisal of alternative spatial strategies**

- 1.28 Taking into account the findings of Stage 1 of the SA, the NEAs selected the alternative strategic sites to be taken forward for inclusion in alternative spatial strategies (see Figure 1.1 above) and defined the 17 alternative spatial strategies set out in Table 1.4 to be subject to SA during Stage 2 of the Additional SA process. The spatial strategies were divided into two geographical areas to reflect a natural division between combinations of strategic sites: west of Colchester; and east of Colchester.
- 1.29 The SAs of the alternative spatial strategies were informed by the SA of the strategic sites carried out in Stage 1, including information included in the site information forms. Each alternative spatial strategy included information on employment and the strategic infrastructure that would be needed to support delivery of the strategy.
- 1.30 For the proportionate growth alternatives and those alternatives where a strategic site was combined with an element of proportionate growth, a greater element of professional judgement was required to appraise them, particularly for the spatial strategy alternative whereby each settlement would grow at the same percentage (18%), because specific sites were not identified. However, the SA for these alternatives was based on clear descriptions of how much development would go to each settlement, which provided a reasonable basis for coming to judgements.

**Table 1.4: Spatial strategy alternatives**

WEST OF COLCHESTER (Whole of Braintree and most of Colchester) Target of approximately 5,000 additional homes up to 2033	EAST OF COLCHESTER (Tendring and eastern part of Colchester) Target to deliver approximately 2,500 additional homes up to 2033
<ul style="list-style-type: none"> <li>1. Proportionate (percentage-based) growth</li> <li>2. Proportionate (hierarchy-based) growth</li> <li>3. West of Braintree GC [NEAGC1] + Colchester/Braintree GC [NEAGC2]</li> <li>4. West of Braintree GC [NEAGC1] + Monks Wood GC [ALTGC3] + Colchester/Braintree GC [NEAGC2]</li> <li>West 4a: smaller scale of West of Braintree [NEAGC1] + Monks Wood GC [ALTGC3] + smaller scale of Colchester/Braintree GC [NEAGC2]</li> <li>5. Monks Wood GC [ALTGC3] + Colchester/Braintree Borders GC [NEAGC2]</li> <li>6. West of Braintree GC [NEAGC1] + Monks Wood GC [ALTGC3]</li> <li>7. East of Braintree [SUE2] + Kelvedon [VE1]</li> <li>8. Land at Halstead [SUE1] + proportionate growth.</li> <li>9. West of Braintree GC [NEAGC1] + proportionate growth</li> <li>10. Colchester/Braintree GC [NEAGC2] + proportionate growth</li> <li>11. Monks Wood GC [ALTGC3] + proportionate growth</li> </ul>	<ul style="list-style-type: none"> <li>1. Proportionate (percentage-based) growth</li> <li>2. Proportionate (hierarchy-based) growth</li> <li>3. Tendring Colchester Borders GC [NEAGC3]</li> <li>4. Colchester North-East Urban Extension [ALTGC7]</li> <li>5. Tendring Central Garden Village [VE5]</li> <li>6. CAUSE Metro Plan [C1, C2, C3 &amp; C4]</li> </ul>

### **Cumulative effects**

- 1.31 The significance of the effects identified by the SA relates to the growth that would be provided by the Section 1 Local Plan alone but the potential for cumulative effects with proposed allocations within the submitted Section 2 Local Plans or significant permitted developments was described in the assessment text of the main SA report and appendices, where relevant. Cumulative effects are also described later in this Non-Technical Summary.
- 1.32 Similarly, where sites cross over the NEA boundary, specifically for example to the west of the NEAGC1, the proposed allocations within neighbouring districts are also taken into account – however, the significance of the effects identified by the SA relates only to the growth that would be provided by the Section 1 Local Plan alone.

### **Balancing effects of different development locations**

- 1.33 A number of spatial strategy alternatives comprised some alternative strategic sites or proportionate growth locations likely to have positive effects in relation to an SA objective and other sites/locations likely to result in negative or less positive effects in relation to the same SA objective. In these cases, judgement was necessary in coming to a view of the overall effect of the spatial strategy alternative, applying the precautionary principle unless a spatial strategy alternative would allocate the clear majority of development to a location with significant positive effects, and only a very small amount of development to a less suitable location – in such circumstances, greater weight would be placed on the more positive effects identified.

### **The approach to consultation**

- 1.34 The proposed scope and methodology of the Additional SA were set out in a Method Scoping Statement, which was reviewed by the Inspector and subsequently amended based on his advice<sup>6</sup>. This amended version of the Method Scoping Statement was subject to focussed consultation between 14 December 2018 and 1 February 2019 and supplemented by discussion sessions with site promoters and other stakeholders during January 2019. As a result of consultation feedback and subsequent discussion with NEA officers, some amendments to the Stage 1 methodology and the details of the sites to be assessed were made.
- 1.35 A 'check and challenge' workshop allowed early dissemination of draft results from Stage 1 of the SA and input to the approach to Stage 2. The format of the workshop allowed attendees the opportunity to engage more fully with the SA process via opportunities to ask questions at the end of each agenda item, and group discussions, the outputs of which were intended to help inform the next stage of SA work. From the round table discussions, a number of key principles, ideas, arguments and factors were identified. These ideas were taken into account along with the Local Plan Inspector's specific comments both by LUC in developing the methodology for the Additional SA and by the NEAs in developing an overarching set of principles to guide the planning judgement that was applied in the selection of the reasonable alternative spatial strategies to be appraised.

### **Difficulties encountered**

- 1.36 It is a requirement of the SEA Regulations that consideration is given to any data limitations or other difficulties that are encountered during the SA process. Those encountered during the Additional SA are set out in the full report of the Additional SA below. Notwithstanding these limitations, it is considered that the SA provides an adequate basis for comparing the sustainability implications of the reasonable alternatives appraised.

## **Results of Stage 1 - SA of alternative strategic sites**

- 1.37 This section summarises the findings of the Stage 1a and Stage 1b appraisals of the alternative strategic sites.

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<sup>6</sup> As set out in the Inspectors letter dated 21 November 2018. The Inspector stated that the amendments 'dealt appropriately with his points' in his letter dated 10 December 2018.

## **Stage 1 access criteria**

### *Stage 1a assessment*

- 1.38 The results of the Stage 1a assessment in relation to access to existing key services and facilities are shown in Table 1.5. Few sites scored well against all the criteria, primarily because they would be either stand-alone developments, or on the edge of settlements in the form of urban extensions. The criteria against which a number of sites scored well were in relation to access to open space and sports centres, public rights of way, and employment areas.
- 1.39 Three of the CAUSE sites – C1 CAUSE Alresford, C2 Great Bentley and C3 CAUSE Weeley – performed relatively well because they are focused around village centres and railway stations. For similar reasons, VE4 Weeley Garden Village also performed relatively well.
- 1.40 Of the urban extensions, SUE1, SUE2 and SUE3 performed better than SUE4, although SUE1 performed less well in relation to access to a primary/middle school and a railway station. However, incomplete data were available to inform the appraisal of SUE4 in relation to accessibility to existing services and facilities; the Stage 1c assessment provides a more complete appraisal of this site.
- 1.41 Of the Alternative Garden Community sites, ALTGC2, ALTGC7 and ALTGC10 performed relatively well and ALTGC3 and ALTGC9 performed least well. There was little to distinguish between the other Alternative Garden Community sites.
- 1.42 The Garden Community sites NEAGC1, NEAGC2, NEAGC3, performed relatively poorly compared to many of the alternatives, because they are less well related to existing services and facilities. Even with NEAGC2, which is focused on a railway station, the majority of the site would be in an 'unacceptable' walking distance of the station.

**Table 1.5: Stage 1a assessment findings for the Access to Services SA criteria**

Site	GP surgeries / health centres	Primary or middle schools	Secondary schools	Further and higher education facilities	Local centres	Town centres	Railway stations	Bus stops	Cycle paths	Open spaces and sports centres	Public Rights of Way (PRoW)	Centres of employment including employment areas and town centres
ALTGC2	✓	✓						✓		✓✓✓	✓✓	✓
ALTGC3											✓✓	
ALTGC4								✓		✓	✓✓	✓
ALTGC6							✓			✓✓	✓✓	✓
ALTGC7		✓	✓					✓		✓✓✓	✓✓	✓✓
ALTGC8			✓					✓		✓✓	✓✓	✓
ALTGC9										✓	✓✓	✓
ALTGC10			✓	✓				✓✓	✓✓	✓✓	✓✓	✓
ALTGC11								✓	✓	✓	✓✓	✓✓✓
C1	✓✓	✓✓			✓		✓✓✓	✓✓		✓✓	✓✓✓	
C2	✓✓	✓✓✓			✓		✓✓✓	✓		✓✓	✓✓	✓✓
C3		✓✓✓					✓✓✓	✓✓		✓✓	✓✓	
C4							✓✓✓	✓✓		✓	✓✓	
NEAGC1											✓✓	
NEAGC2										✓	✓✓	✓
NEAGC3								✓		✓	✓✓	✓
SUE1			✓					✓		✓✓	✓✓	✓✓
SUE2		✓	✓				✓	✓	✓	✓✓	✓✓	✓
SUE3		✓	✓				✓	✓		✓✓	✓✓	✓
SUE4								✓			✓✓	✓✓
VE1							✓			✓	✓✓	✓
VE4		✓					✓✓✓	✓✓		✓✓	✓✓	
VE5								✓✓	✓	✓✓	✓✓	✓✓
<b>Key</b>	✓✓✓	'Desirable' walking distance		✓✓	'Acceptable' walking distance		✓	'Maximum preferred' walking distance			'Unacceptable' walking distance	

### *Stage 1b assessment*

- 1.43 Stage 1a assessed each strategic site based on its existing situation. The purpose of Stage 1b was to factor in the services and facilities that would be likely to be delivered should development take place. At this stage, provision for strategic transport infrastructure was not taken into account, and neither was provision for additional employment land. The Stage 1b assessment used consistent assumptions about what would be likely to be provided on site in the way of services and facilities, and also assumed that the maximum development capacity would be delivered.
- 1.44 The Stage 1b assessment took place at a point in time in the SA process, and was subsequently replaced by a Stage 1c more detailed assessment. However, the overall findings at that stage of the process are summarised in relation to access to key services and facilities in Table 1.6. Comparing the results to those from Stage 1a (Table 1.5), it can be seen that once the assumed services and facilities that would be delivered at strategic sites are built into the assessment framework in Stage 1b, the differences in performance between the strategic sites begin to narrow.
- 1.45 The larger strategic sites, such as the three proposed Garden Communities, some of the Alternative Garden Communities, and strategic urban extensions have the potential to include a range of services and facilities, including secondary schools and health care facilities, which brings them up in terms of overall performance. On the other hand, some of the smaller strategic sites, such as the four CAUSE sites, retain their advantage in terms of access to a railway station, but are less likely to deliver the full range of services and facilities, when considered individually.

**Table 1.6: Stage 1b assessment findings for the Access to Services SA criteria**

Site	GP surgeries / health centres	Primary or middle schools	Secondary schools	Further and higher education facilities	Local centres	Town centres	Railway stations	Bus stops	Cycle paths	Open spaces and sports centres	Public Rights of Way (PRoW)	Centres of employment including employment areas and town centres
ALTGC2	✓	✓✓✓			✓✓✓			✓✓✓		✓✓✓	✓✓	✓
ALTGC3	✓✓✓	✓✓✓	✓✓✓		✓✓✓			✓✓✓		✓✓✓	✓✓	
ALTGC4	✓✓✓	✓✓✓	✓✓✓		✓✓✓			✓✓✓		✓✓✓	✓✓	✓
ALTGC6	✓✓✓	✓✓✓	✓✓✓		✓✓✓		✓	✓✓✓		✓✓✓	✓✓	✓
ALTGC7		✓✓✓	✓		✓✓✓			✓✓✓		✓✓✓	✓✓	✓✓
ALTGC8		✓✓✓	✓		✓✓✓			✓✓✓		✓✓✓	✓✓	✓
ALTGC9		✓✓✓			✓✓✓			✓✓✓		✓✓✓	✓✓	✓
ALTGC10	✓✓✓	✓✓✓	✓✓✓	✓	✓✓✓			✓✓✓	✓✓	✓✓✓	✓✓	✓
ALTGC11	✓✓✓	✓✓✓	✓✓✓		✓✓✓			✓✓✓	✓	✓✓✓	✓✓	✓✓✓
C1	✓✓	✓✓✓			✓✓✓		✓✓✓	✓✓✓		✓✓✓	✓✓✓	
C2	✓✓	✓✓✓			✓✓✓		✓✓✓	✓✓✓		✓✓✓	✓✓	✓✓
C3		✓✓✓			✓✓✓		✓✓✓	✓✓✓		✓✓✓	✓✓	
C4		✓✓✓			✓✓✓		✓✓✓	✓✓✓		✓✓✓	✓✓	
NEAGC1	✓✓✓	✓✓✓	✓✓✓		✓✓✓			✓✓✓		✓✓✓	✓✓	
NEAGC2	✓✓✓	✓✓✓	✓✓✓		✓✓✓			✓✓✓		✓✓✓	✓✓	✓
NEAGC3	✓✓✓	✓✓✓	✓✓✓		✓✓✓			✓✓✓		✓✓✓	✓✓	✓
SUE1	✓✓✓	✓✓✓	✓✓✓		✓✓✓			✓✓✓		✓✓✓	✓✓	✓✓
SUE2		✓✓✓	✓		✓✓✓		✓	✓✓✓	✓	✓✓✓	✓✓	✓
SUE3	✓✓✓	✓✓✓	✓✓✓		✓✓✓		✓	✓✓✓		✓✓✓	✓✓	✓
SUE4		✓✓✓			✓✓✓			✓✓✓		✓✓✓	✓✓	✓✓
VE1	✓✓✓	✓✓✓	✓✓✓		✓✓✓		✓	✓✓✓		✓✓✓	✓✓	✓
VE4		✓✓✓			✓✓✓		✓✓✓	✓✓✓		✓✓✓	✓✓	
VE5	✓✓✓	✓✓✓	✓✓✓		✓✓✓			✓✓✓	✓	✓✓✓	✓✓	✓✓
<b>Key</b>	✓✓✓	'Desirable' walking distance		✓✓	'Acceptable' walking distance		✓	'Maximum preferred' walking distance			'Unacceptable' walking distance	

## **Stage 1 environmental criteria**

### *Stage 1a and Stage 1b assessment*

- 1.46 Table 1.7 below shows the Stage 1a and 1b assessment findings for each strategic site against the SA criteria which relate to 'risk of environmental harm'. When looking across all the 'risk of harm' to environmental assets criteria, no strategic sites perform particularly well or particularly poorly. For some criteria, most if not all of the sites have the same score, for example in relation to heritage assets, internationally and nationally designated biodiversity and geological sites, proximity to AQMAs, mineral resources and best and most versatile agricultural land. The differences relate to other environmental criteria, such as risk of harm to local wildlife sites and exposure to noise, which may be capable of mitigation through the design and delivery process. Although all sites recorded a 'High' risk of harm against at least two of the criteria, this does not necessarily mean that they are 'showstoppers'.
- 1.47 Note that for the risk of environmental harm criteria, the Stage 1b results are the same as the Stage 1a results, as any variations would be dependent upon the design and layout of development, which was not known at this stage of the GIS led assessment process. The only exception to this is in relation to criterion 'Likely contribution to road traffic within areas suffering from traffic-related air pollution' as there is no Stage 1a assessment for this, because it is based on professional judgement. As such, only the Stage 1b results are reported in this section.

**Table 1.7: Stage 1a and 1b assessment findings for risk of environmental harm**

Site	Heritage assets	Internationally or nationally designated biodiversity or geological sites	Locally designated biodiversity sites and ancient woodland	Priority Habitat Inventory (PHI) or local Biodiversity Action Plan (BAP) habitat	Designated landscapes	Source Protection Zones (SPZs)	Flood risk areas	Proximity to sources of air pollution	Exposure to noise pollution from roads and railways	Mineral resources	Best and most versatile agricultural land
ALTGC2	High	Medium	Medium	Low	Low	Low	Low	Low	Low	High	High
ALTGC3	High	Medium	High	Medium	Low	Low	Low	Low	Medium	High	High
ALTGC4	High	Medium	Medium	Low	Low	Low	Low	Low	High	High	High
ALTGC6	High	Medium	Low	Low	Low	Low	Medium	Low	High	High	High
ALTGC7	High	Medium	Medium	Low	Medium	Low	Low	Low	High	High	High
ALTGC8	High	Medium	High	Medium	Medium	Low	Low	Low	High	High	High
ALTGC9	High	Medium	Medium	Medium	Medium	Low	Low	Low	High	High	High
ALTGC10	High	Medium	High	Medium	Low	Low	High	Low	High	High	High
ALTGC11	High	Medium	Medium	Low	Medium	Low	Low	Low	High	High	High
C1	High	Medium	High	Medium	Low	Low	Low	Low	Low	High	High
C2	High	Medium	Medium	Low	Low	Medium	Low	Low	Low	High	High
C3	High	Medium	Medium	Low	Low	Low	Medium	Low	Medium	High	Medium
C4	High	Medium	High	Medium	Low	Low	High	Low	Low	High	Medium
NEAGC1	High	Medium	Medium	Low	Low	Low	Low	Low	Low	High	High
NEAGC2	High	Medium	Medium	Low	Low	Low	Low	Low	High	High	High
NEAGC3	High	Medium	Medium	Low	Medium	Low	Low	Low	High	High	High
SUE1	High	Medium	Medium	Low	Low	Medium	Low	Low	Medium	High	High
SUE2	High	Medium	Medium	Low	Low	Low	Low	Low	High	High	High
SUE3	High	Medium	Medium	Low	Low	Low	Low	Low	High	High	High
SUE4	High	Low	Medium	Low	Low	Medium	Low	Low	Low	Low	High
VE1	High	Medium	Low	Low	Low	Low	Low	Low	High	High	High
VE4	High	Medium	Medium	Low	Low	Low	Low	Low	High	Low	Medium
VE5	High	Medium	Low	Low	Low	Medium	Low	Low	High	High	High



### **Conclusions of Stage 1a and 1b assessments**

- 1.48 The overall performance of the alternative strategic sites against the SA objectives, once services and facilities that may be delivered as an integral component of development are taken into account, the difference between them is not that great. There are no sites that perform extremely well against all the criteria and no sites that perform extremely poorly.
- 1.49 Given that some criteria that underpin the SA objectives can give rise to a 'high' risk of significant effect even though the proportion of the site affected may be very small, the results need to be treated with caution. It could be expected that, all other things being equal, the larger the site, the more likely it is that it will intersect with environmental assets. But on the other hand, larger sites are likely to give greater scope for flexibility in terms of design and mitigation through the masterplanning process. Similarly, the larger the site, the more likely it is to be able to deliver a range of services and facilities.
- 1.50 This assessment was undertaken purely using GIS and did not generate definitive results as to which sites to rule out to take to the Stage 2 alternative spatial strategy assessment. It was therefore considered that a more detailed, 'Stage 1c', assessment should be carried out.

### **Stage 1c findings**

- 1.51 The findings of the Stage 1c appraisals of the alternative strategic sites at all dwelling capacities in Table 1.8.
- 1.52 The enhanced Stage 1c assessment confirmed and reinforced many of the findings of the Stage 1a and 1b assessment. When considered across the SA objectives as a whole, the differences between sites were not that great with no sites performing particularly well and no sites performing particularly poorly in comparison with the other sites.
- 1.53 The Stage 1c assessment brought out more differences between sites in relation to their scale of development, with larger scale sites being more likely to deliver a good range of community services and facilities, including health care, secondary schools, and employment land.
- 1.54 The Stage 1c assessment also brought out some of the differences between sites with respect to effects on biodiversity (SA objective 6) and townscape (SA objective 9), but these assessments were prior to mitigation being taken into account.
- 1.55 Given that most of the sites are of a large scale that they may offer scope to avoid sensitive assets, incorporate mitigation, and provide flexibility in design to reduce impacts on matters such as visual intrusion or impacts on the setting of heritage assets, it was not possible to definitively rule out sites on the basis of the SA alone.



**Table 1.8: Stage 1c assessment findings**

		SA objective														
Site	Dwelling capacity	SA1 Community cohesion	SA2 Housing provision	SA3 Health	SA4 Vitality and viability of centres	SA5 Economy	SA6 Biodiversity and geological diversity	SA7 Sustainable travel	SA8 Accessibility & infrastructure provision	SA9 Historic environment and townscape	SA10 Energy efficiency and climate change	SA11 Water resources and quality	SA12 Flood risk	SA13 Air quality	SA14 Landscape	SA15 Soil and mineral resource
ALTGC2 a	1,800	--?/++	++?	+/-?	+	++	-?	+?/-?	+	--?/?	+	0/0?	0	0/-?	--?	--?/--
ALTGC2 b	2,500	--?/++	++?	+/-?	+	++	-?	+?/-?	+	--?/?	+	0/0?	0	0/-?	--?	--?/--
ALTGC3 a	2,000	--?/++	++	+/0	+	+	--?	+?/-?	+	--?/?	+	0/?	0	0/0	--?	--?/--
ALTGC3 b	2,500	--?/++	++	+/0	+	++	--?	++?/-?	+	--?/?	+	0/?	0	0/0	--?	--?/--
ALTGC3 c	5,500	--?/++	++?	++/0	+	++	--?	++?/-?	+	--?/?	+	0/?	0	0/0	--?	--?/--
ALTGC3 d	13,500	--?/++	++?	++/0	+	++	--?	++?/-?	+	--?/?	+	0/?	0	0/0	--?	--?/--
ALTGC4 a	2,000	--?/++	++	+/-	+	+	-?	+?/-?	+	--?/?	+	0/0?	0	0/-?	--?	--?/--
ALTGC4 b	2,500	--?/++	++	+/-	+	+	-?	+?/-?	+	--?/?	+	0/0?	0	0/-?	--?	--?/--
ALTGC4 c	17,000	--?/++	++?	++/-	+	++	-?	++?/-?	+	--?/?	+	0/0?	0	0/-?	--?	--?/--
ALTGC4 d	21,000	--?/++	++?	++/-	+	++	-?	++?/-?	+	--?/?	+	0/0?	0	0/-?	--?	--?/--
ALTGC6 a	2,000	--?/++	++?	+?/-	+	+	-?	+?/-?	+	--?/?	+	0/0?	0	0/-?	--?	--?/--
ALTGC6 b	2,500	--?/++	++?	+?/-	+	+	-?	+?/-?	+	--?/?	+	0/0?	0	0/-?	--?	--?/--
ALTGC6 c	3,500	--?/++	++?	+?/-	+	+	-?	+?/-?	+	--?/?	+	0/0?	0	0/-?	--?	--?/--
ALTGC6 d	5,000	--?/++	++?	++?/-	+	+	-?	+?/-?	+	--?/?	+	0/0?	0	0/-?	--?	--?/--
ALTGC7 a	2,000	--?/++	++	+/-	+	+	--?	+?/-?	+	--?/0	+	0/0?	0	0/-?	--?	--?/--
ALTGC7 b	2,500	--?/++	++	+/-	+	+	--?	+?/-?	+	--?/0	+	0/0?	0	0/-?	--?	--?/--
ALTGC7 c	4,000	--?/++	++?	+/-	+	+	--?	+?/-?	+	--?/0	+	0/0?	0	0/-?	--?	--?/--
ALTGC8 a	2,000	--?/++	++	+/-	+	+	--?	+?/-?	+	--?/0	+	0/0?	-?	0/-?	--?	-?/--
ALTGC9 a	2,000	--?/++	++	+/-	+	+	-?	+?/-?	+	--?/0	+	0/0?	0	0/-?	--?	--?/--
ALTGC9 b	2,500	--?/++	++?	+/-	+	+	-?	+?/-?	+	--?/0	+	0/0?	0	0/-?	--?	--?/--
ALTGC9 c	3,000	--?/++	++?	+/-	+	+	-?	+?/-?	+	--?/0	+	0/0?	0	0/-?	--?	--?/--
ALTGC10 a	2,000	--?/++	++	+/-	+	+	--?	+?/-?	+	--?/?	+	0/0?	-?	0/-?	--?	--?/--
ALTGC10 b	2,500	--?/++	++	+/-	+	+	--?	+?/-?	+	--?/?	+	0/0?	-?	0/-?	--?	--?/--
ALTGC10 c	4,500	--?/++	++?	++/-	+	+	--?	+?/-?	+	--?/?	+	0/0?	-?	0/-?	--?	--?/--
ALTGC11 a	2,000	--?/++	++	+/-	+	+	-?	+?/-?	+	--?/?	+	0/0?	0	0/-?	--?	--?/--
ALTGC11 b	2,500	--?/++	++	+/-	+	+	-?	++?/-?	+	--?/?	+	0/0?	0	0/-?	--?	--?/--
ALTGC11 c	5,000	--?/++	++?	++/-	+	+	-?	++?/-?	+	--?/?	+	0/?	0	0/-?	--?	--?/--
C1 a	700	--?/+	++	++/0	+	+	--?	+?/+++	+	--?/?	+	0/?	0	0/0	--?	--?/--
C1 b	2,000	--?/++	++	++/0	+	+	--?	+?/+++	+	--?/?	+	0/?	0	0/0	--?	--?/--

		SA objective														
Site	Dwelling capacity	SA1 Community cohesion	SA2 Housing provision	SA3 Health	SA4 Vitality and viability of centres	SA5 Economy	SA6 Biodiversity and geological diversity	SA7 Sustainable travel	SA8 Accessibility & infrastructure provision	SA9 Historic environment and townscape	SA10 Energy efficiency and climate change	SA11 Water resources and quality	SA12 Flood risk	SA13 Air quality	SA14 Landscape	SA15 Soil and mineral resource
C1 c	2,500	--?/++	++	++/0	+	+	--?	+?/+++	+?	--?/?	+	0/?	0	0/0	--?	--?/--
C2 a	700	--?/+	++	++/0	+	+	-?	+?/+++	+?	--?/?	+	-?/0?	-?	0/0	--?	--?/--
C2 b	2,000	--?/++	++	++/0	+	+	-?	+?/+++	+?	--?/?	+	-?/?	-?	0/0	--?	--?/--
C2 c	2,500	--?/++	++	++/0	+	+	-?	+?/+++	+?	--?/?	+	-?/?	-?	0/0	--?	--?/--
C3 a	700	--?/+	++	+?/0	+	+	--?	+?/+++	+?	--?/?	+	0/?	0	0/0	--?	-?/-
C3 b	2,000	--?/++	++	+?/0	+	+	--?	+?/+++	+?	--?/?	+	0/?	0	0/0	--?	-?/-
C3 c	2,500	--?/++	++	+?/0	+	+	--?	+?/+++	+?	--?/?	+	0/?	0	0/0	--?	-?/-
C4 a	700	--?/+	++	+?/0	+	++	--?	+?/+++	+?	--?/?	+	0/?	-?	0/0	--?	-?/-
C4 b	2,000	--?/++	++	+?/0	+	++	--?	+?/+++	+?	--?/?	+	0/?	-?	0/0	--?	-?/-
C4 c	2,500	--?/++	++	+?/0	+	++	--?	+?/+++	+?	--?/?	+	0/?	-?	0/0	--?	-?/-
NEAGC1 a	2,000	--?/++	++	+/-?	+	+	--?	+?/-?	+?	--?/0	+	0/0?	0	0/0	--?	--?/--
NEAGC1 b	2,500	--?/++	++	+/-?	+	+	--?	+?/-?	+?	--?/0	+	0/0?	0	0/0	--?	--?/--
NEAGC1 c	5,500	--?/++	+++	++/-?	+	++	--?	+++/-?	+?	--?/0	+	0/0?	0	0/0	--?	--?/--
NEAGC1 d	7,500	--?/++	+++	++/-?	+	++	--?	+++/-?	+?	--?/0	+	0/0?	0	0/0	--?	--?/--
NEAGC1 e	10,000	--?/++	+++	++/-?	+	++	--?	+++/-?	+?	--?/0	+	0/0?	0	0/0	--?	--?/--
NEAGC2 a	2,500	--?/++	++	+/-?	+	+	-?	+?/-?	+?	--?/?	+	0/0?	0	0/-?	--?	--?/--
NEAGC2 b	5,500	--?/++	+++	++/-?	+	+	-?	+?/-?	+?	--?/?	+	0/0?	0	0/-?	--?	--?/--
NEAGC2 c	15,000	--?/++	+++	++/-?	+	++	-?	+++/-?	+?	--?/?	+	0/0?	0	0/-?	--?	--?/--
NEAGC2 d	21,000	--?/++	+++	++/-?	+	++	-?	+++/-?	+?	--?/?	+	0/0?	0	0/-?	--?	--?/--
NEAGC2 e	27,000	--?/++	+++	++/-?	+	++	-?	+++/-?	+?	--?/?	+	0/0?	0	0/-?	--?	--?/--
NEAGC3 a	2,000	--?/++	++	+/-	+	+	-?	+?/-?	+?	--?/?	+	0/0?	0	0/-?	--?	--?/--
NEAGC3 b	2,500	--?/++	++	+/-	+	+	-?	+?/-?	+?	--?/?	+	0/0?	0	0/-?	--?	--?/--
NEAGC3 c	7,500	--?/++	+++	++/-	+	++	-?	+++/-?	+?	--?/?	+	0/0?	0	0/-?	--?	--?/--
NEAGC3 d	8,000	--?/++	+++	++/-	+	++	-?	+++/-?	+?	--?/?	+	0/0?	0	0/-?	--?	--?/--
SUE1 a	2,000	--?/++	++	+/0	+	+	-?	+?/-?	+?	--?/?	+	0/?	0	0/0	--?	--?/-
SUE1 b	2,500	--?/++	++	+/0	+	+	-?	+++/-?	+?	--?/?	+	0/?	0	0/0	--?	--?/-
SUE1 c	6,000	--?/++	++	++/0	+	+	-?	+++/-?	+?	--?/?	+	0/?	0	0/0	--?	--?/-
SUE1 d	8,500	--?/++	++	++/0	+	+	-?	+++/-?	+?	--?/?	+	0/?	0	0/0	--?	--?/-
SUE2 a	2,000	--?/++	++	+/-	+	+	-?	+?/-?	+?	--?/0	+	0/0?	0	0/0?	--?	--?/--
SUE2 b	2,500	--?/++	++	+/-	+	+	-?	+?/-?	+?	--?/0	+	0/0?	0	0/0?	--?	--?/--
SUE2 c	5,000	--?/++	++	++/-	+	++	-?	+++/-?	+?	--?/0	+	0/?	0	0/0?	--?	--?/--

		SA objective														
Site	Dwelling capacity	SA1 Community cohesion	SA2 Housing provision	SA3 Health	SA4 Vitality and viability of centres	SA5 Economy	SA6 Biodiversity and geological diversity	SA7 Sustainable travel	SA8 Accessibility & infrastructure provision	SA9 Historic environment and townscape	SA10 Energy efficiency and climate change	SA11 Water resources and quality	SA12 Flood risk	SA13 Air quality	SA14 Landscape	SA15 Soil and mineral resource
SUE3 a	2,000	--?/++	++	+/-	+	+	-?	+?/-?	++	--?/?	+	0/0?	0	0/0?	--?	--?/--
SUE3 b	2,500	--?/++	++	+/-	+	+	-?	+?/-?	++	--?/?	+	0/0?	0	0/0?	--?	--?/--
SUE3 c	5,000	--?/++	+++?	++/-	+	++	-?	+++?/-?	++	--?/?	+	0/?	0	0/0?	--?	--?/--
SUE3 d	12,500	--?/++	+++?	++/-	+	++	-?	+++?/-?	++	--?/?	+	0/?	0	0/0?	--?	--?/--
SUE4 a	2,000	--?/++	++	+/0	+	+	-?	+?/-?	++	--?/?	+	-?/?	-?	0/-?	--?	0/--
SUE4 b	2,500	--?/++	++	+/0	+	+	-?	+?/-?	++	--?/?	+	-?/?	-?	0/-?	--?	0/--
SUE4 c	3,500	--?/++	++	+/0	+	+	-?	+?/-?	++	--?/?	+	-?/?	-?	0/-?	--?	0/--
VE1 a	2,000	--?/++	++	+?/-	+	+	-?	+?/-?	++	--?/?	+	0/?	0	0/0?	--?	--?/--
VE1 b	2,500	--?/++	++	+?/-	+	+	-?	+?/-?	++	--?/?	+	0/?	0	0/0?	--?	--?/--
VE1 c	5,000	--?/++	++	+++?/-	+	++	-?	+++?/-?	++	--?/?	+	0/?	0	0/0?	--?	--?/--
VE1 d	17,000	--?/++	++	+++?/-	+	++	-?	+++?/-?	++	--?/?	+	0/?	0	0/0?	--?	--?/--
VE4 a	2,000	--?/++	++	+?/-	+	+	-?	+?/+++?	++	--?/?	+	0/?	0	0/0	--?	0/-
VE5 a	2,000	--?/++	++	+?/--	+	+	-?	+?/-?	++	--?/?	+	0/?	0	0/-?	--?	--?/--
VE5 b	2,500	--?/++	++	+?/--	+	++	-?	+++?/-?	++	--?/?	+	0/?	0	0/-?	--?	--?/--
VE5 c	4,500	--?/++	+++?	+++?/--	+	++	-?	+++?/-?	++	--?/?	+	0/?	0	0/-?	--?	--?/--



## Results of Stage 2 - SA of alternative spatial strategies

### Plan period versus fully built out scenarios

- 1.56 The Additional SA assessed the Section 1 Local Plan alternative spatial strategies both within the Plan period (i.e. to 2033) and when fully built out (no specified end date, but likely to be several years, if not decades, beyond the end of the Plan period). This makes direct comparisons between the alternative spatial strategies difficult, because some (e.g. proportionate growth) will be delivered by 2033, whereas others that include major strategic sites will continue well beyond 2033. In a sense, this is comparing 'apples and pears'.
- 1.57 It should be noted that, although some spatial strategies only allocate development to the end of the Plan period, development is, in reality, likely to continue beyond 2033. However there is no spatial strategy for this post-2033 development, although it could be presumed that development would continue in the same vein. The effects of the spatial strategies that involve major strategic sites will not be fully felt until well after the end of the Plan period. Similarly, temporary effects related to their construction (e.g. noise and disturbance) are likely to be experienced over many years.
- 1.58 In addition, it should be noted that existing commitments and allocations in the Section 2 Local Plans already make up over 80% of the total housing required to be delivered within the Plan period (approximately 35,600 of 43,200 homes). In this respect, those spatial strategies that seek to deliver the remaining approximate 7,500 homes within the Plan period and no more could be considered too small in scale to be strategic. Conversely, although all spatial strategy alternatives seek to deliver the required additional 7,500 homes in the Plan period, some could go on to deliver potentially as much as 35,500 additional homes beyond the Plan period. In fact, taking into account the 7,500 they will deliver within the Plan period, they could total a similar amount of housing that is planned for through the Section 2 Local Plans.
- 1.59 The Section 2 Local Plans already seek to focus development at existing settlements within North Essex, through Policy SP2 of the Section 1 Local Plan, according to settlement scales, sustainability and existing role. In this respect, a number of the settlements are already likely to experience significant housing growth relative to their existing size.
- 1.60 The cumulative effects from this development proposed by the Section 2 Local Plans provide the context for the Additional SA work, and the consideration of further growth, both within the Plan period and beyond.

### Pros and cons of different urban forms

- 1.61 As part of the Additional SA, a review of research was undertaken with respect to urban form. This looked at the in-principle pros and cons of new settlements, urban extensions and dispersed development and provided some useful indicators as to how these different types of urban form compare in sustainability terms. The review found that:
- Dispersed development, which bears many similarities with the proportionate (percentage-based) growth spatial strategy alternative appraised in the Additional SA, performs less well across a range of criteria than new settlements or urban extensions, for example in relation to travel patterns and modes of transport and the delivery of affordable housing.
  - New settlements and urban extensions can perform similarly, depending upon where they are located, and how they are designed and delivered.
- 1.62 For new settlements to perform well in sustainability terms, it is critical that the infrastructure is provided in the early stages of development in order to avoid unsustainable travel behaviours becoming embedded before sustainable transport alternatives become available, and to develop a sense of community cohesion. New settlements can involve a significant amount of embodied carbon by having to develop 'from scratch', although new settlements can be designed to be efficient in carbon terms, including inclusion of renewable energy and encouraging low carbon behaviours, such as sustainable modes of transport. Larger new settlements are more likely to attract economic activity.
- 1.63 Urban extensions can make use of existing infrastructure, or expansions to existing infrastructure, rather than having to start from scratch. If well integrated with the settlements they are attached

to, they can offer immediate access to a range of existing jobs, services and facilities, although they can lack a sense of place. Larger urban extensions can also deliver their own services and facilities, economic activity, and the design features associated with new settlements with respect to sustainable travel and reduced carbon.

- 1.64 Viability and deliverability issues can affect both new settlements and urban extensions, but tend to be more pronounced with new settlements unless appropriate funding and governance structures are put in place. Dispersed development may have less in the way of upfront investment, but on the other hand can lead to an accumulation of development with insufficient investment in supporting services, facilities and infrastructure.
- 1.65 In terms of guiding principles, the research found that new settlements are likely to perform best when they are in close proximity to thriving towns and cities in order to share infrastructure and access to jobs and services during the early stages. On the other hand, there is a risk that such new development can draw resources and investment away from the towns and cities with which they are associated.
- 1.66 Of critical importance is that new strategic development should be located in areas with high public transport accessibility, for example along well-served bus corridors, and in close proximity to railway stations and other transport interchanges. The potential to extend existing networks, making better use of existing mainline stations or disused lines, and additional branches (e.g. rapid transit systems) through new neighbourhoods are considered to help make new strategic development more accessible and more successful.
- 1.67 In terms of design, connectivity is important, and the need to avoid severance by major roads and roundabouts. While landscape buffers and green space are to be encouraged, they should not threaten permeability and connectivity with surrounding land uses.
- 1.68 It is acknowledged in the research that the achievement of 'self-containment' is an unrealistic ambition given the choice of modes of transport available to modern communities, but that if developments are of a sufficient scale, they can provide for many of the everyday needs of residents within the development, reducing the incentive to travel elsewhere. This can be helped by designing compact developments, which incorporate a mix of uses.
- 1.69 The Additional SA of the spatial strategy alternatives for North Essex largely mirrors the findings of the research. The proportionate growth alternatives West 1, West 2, East 1, and East 2 (particularly those based on a simple percentage increase in growth of each settlement - West 1 and East 1) performed relatively poorly against the SA objectives, whereas many of the new settlement and urban extension alternatives performed similarly.

### **Summary of findings of the SA of alternative spatial strategies**

#### *West of Colchester*

- 1.70 The proportionate growth spatial strategy alternatives (West 1 and West 2) perform less well across a number of the SA objectives than the other spatial strategy alternatives, as noted above, and therefore can be considered less sustainable.
- 1.71 The remaining spatial strategy alternatives (West 3 to West 11) perform similarly, albeit with some differences between them:
  - All of the remaining spatial strategy alternatives are likely to have significant adverse effects on the existing communities affected by the large-scale developments, primarily because of the considerable change of character around existing settlements. However, several of the spatial strategy alternatives are considered to deliver significant positive effects when the new communities are delivered, due to their being designed as coherent settlements in their own right, with a range of services and facilities (SA objective 1).
  - It is considered that the remaining spatial strategy alternatives will all be capable of delivering the residual housing requirement (approximately 7,500 homes) within the Plan period, and those that extend beyond the Plan period will continue to deliver new homes for many years to come. This includes appropriate provision for affordable housing, and a mix of types and tenures, in line with North Essex policy objectives (SA objective 2).
  - The health benefits will tend to be delivered beyond the Plan period, as the level of housing becomes sufficient to accommodate health care facilities at 4,500 dwellings (SA objective 3).

- Given the scale of development proposed, all of the remaining spatial strategy alternatives will be of sufficient size to incorporate local centres (SA objective 4) and employment land and other jobs (SA objective 5).
- All of the remaining spatial strategy alternatives could have adverse effects on biodiversity, and for West 3, West 4, West 4a, West 5, West 6, and West 11 this could be significant depending upon mitigation (SA objective 6). It should be noted that West 3, West 4, West 4a, and West 5 are located very close to Marks Tey Brickpit SSSI, although being a geological SSSI it should be possible to mitigate and manage adverse effects. All spatial strategies include development within SSSI 'Impact Risk Zones', whereby Natural England should be consulted for potential impacts, although this does not mean that they cannot be mitigated.
- With respect to shorter journeys, the majority of the remaining spatial strategy alternatives will have significant positive effects in the long-term as services and facilities, and jobs, are provided on site, although those strategies which involve building near existing facilities and services, or the provision of Rapid Transit System could achieve this within the Plan period (SA objective 7). West 7 will only have minor positive effects in the long term as the two sites for proportionate growth are likely to have less capacity to support the delivery of on-site facilities.
- With regard to longer journeys, it is considered that those spatial strategy alternatives that include both access to a railway station, particularly on the Great Eastern mainline, as well as investment in a Rapid Transit System, will result in significant positive effects in the longer term (SA objective 7). This is because commuting patterns suggest that the primary commuting destinations for residents of Braintree District are Chelmsford, Colchester, Uttlesford and London, and that Braintree, Chelmsford and London represent three of the top four commuting destinations for residents of Colchester Borough. Therefore, those spatial strategy alternatives that include relatively easy access to a choice of sustainable transport modes (rail and rapid transit) perform most strongly.
- All of the remaining spatial strategy alternatives could potentially have a significant negative effect on heritage assets (SA objective 9). In many instances, the heritage assets include Grade I and Grade II\* listed buildings, either within the site or in close proximity. All of the spatial strategy alternatives also have the potential for significant effects on the townscape of nearby settlements due to their scale, but whether these effects would be positive or negative is uncertain.
- Although all of the remaining spatial strategy alternatives are considered to have minor positive effects on carbon, this is primarily with respect to delivery on site, rather than from traffic. From a traffic perspective, those sites that perform most strongly against SA objective 7 are also likely to perform most strongly with respect to transport related carbon emissions (SA objective 10).
- None of the remaining spatial strategy alternatives were identified as having significant effects with respect to water (SA objective 11), flood risk (SA objective 12) or air quality (SA objective 13).
- All of the remaining spatial strategy alternatives were considered to have potentially significant adverse effects with respect to landscape (SA objective 14).
- All of the remaining spatial strategy alternatives were considered likely to have potentially significant adverse effects with respect to minerals and likely to have significant adverse effects with respect to soils (SA objective 15).
- In many instances, there was uncertainty with respect to the effects identified as it may be possible to include mitigation, given the scale of the strategic sites that form components of many of the alternative spatial strategies, depending upon how development is designed and delivered.

1.72 In light of the findings of the SA, there is little to choose between the spatial strategies in terms of significant effects at the strategic scale (other than West 1 and West 2, as noted above). However, the following observations using professional judgement may help to distinguish between them a little more than the objective, assumptions-led SA has achieved:

- The research into urban form suggests that access to good sustainable transport links and services is critical to the achievement of sustainability, and it also makes sense to work with

established patterns of travel but seek to achieve changes in travel mode. Those strategies that combine both development focused on railway stations, particularly the Great Eastern mainline, and provision for a Rapid Transit System, are therefore likely to perform well.

- Those spatial strategies that do not include easy access to rail, especially to the Great Eastern mainline, could be considered to perform less well. For example, Halstead is not well connected in sustainable transport terms, and is not in the major commuting corridors, so those spatial strategies that include significant additional development at Halstead may be considered less sustainable than some of the other spatial strategies.
- On the other hand, those spatial strategies that focus a significant proportion of development along the Great Eastern mainline, for example West 3, West 4, West 5, West 7 and West 10, could, cumulatively with the effects of development already committed or allocated in the Section 2 Local Plans, lead to the perception of continued urbanisation of the Great Eastern mainline/A12 corridor. Consultations during the SA have also highlighted the lack of capacity on the mainline services to accommodate more passengers at peak times.
- Some strategies rely on Rapid Transit to be successful, including West 3, West 4 and West 4a, West 5, West 6, West 9 and West 11. We understand that developments in the order of 2,500 homes should enable Rapid Transit to begin to become viable, and that as the number of homes increases, services can become more frequent, viability improves, and extensions to the Rapid Transit System can be considered. However, it should be noted that this is based on informal advice from the NEA's transport consultants and in the absence of formal evidence is subject to uncertainty. Should a Rapid Transit System be delivered, this would help to address sustainable access issues to key journey destinations that are currently not within 'Acceptable' walking distance, such as existing employment areas and town centres, and to modal transfer nodes, such as railway stations. It could be assumed that, the shorter the journey by Rapid Transit to reach a destination or transfer node, the more likely it is that people will wish to use this form of transport rather than travel by car.
- Braintree is already earmarked for 22% growth in the Plan period, through commitments and Section 2 Local Plan allocations. Urban extensions to the east of Braintree, such as in spatial strategies West 2, West 7, West 8, West 9, West 10 and West 11 would increase this growth further, resulting in cumulative effects significantly greater than those from the Section 1 Local Plan alone. It should be noted that these strategies would result in the first encroachment of development east of the A120 Braintree bypass, and the bypass itself could act as a barrier to integration of new development with the town.
- The scale of development proposed, in particular under spatial strategy alternatives West 3, West 4, and West 5, is very significant (over 25,000 additional homes when fully built out). Once fully built out, each of these spatial strategies would provide more houses than there currently are in the town of Braintree (even before taking into account planned growth through commitments and Section 2 allocations). It is recognised that large scale development is more likely to attract investment, but it is also more likely to change the character of this part of North Essex. Primarily rural areas would become a chain of settlements linking into the existing settlements. This would particularly be the case for those strategies, such as West 4, which would see considerable development along the A120 corridor. It is difficult to judge what the impacts may be on the existing settlements, which could either be positive (e.g. providing further support for jobs, services and facilities) or negative (e.g. diverting investment away from the existing settlements to new settlements).

1.73 With all the spatial strategies, given the scale of development proposed, there is considerable risk. If for any reason they are not delivered as planned, for example through lack of government funding, or changing market conditions, then delivery may not happen as quickly as anticipated, quality could be compromised, and some aspects may not be delivered as wished. For example, there may be choices to be made with respect to the delivery of affordable housing, a full range of services and facilities, open space, sustainable transport infrastructure and services. This is not to say that these will not be delivered, but simply to observe that development on this scale does carry the risk that its full sustainability potential may not be realised in practice.

1.74 Summaries of the assessment findings for the spatial strategies West of Colchester within the Plan period (Table 1.9) and when fully built out (Table 1.10) are included below.

**Table 1.9: Summary of SA scores for spatial strategies west of Colchester within the Plan period**

		SA objective														
		SA1: Communities	SA2: Homes	SA3: Health	SA4: Centres	SA5: Economy	SA6: Biodiversity	SA7: Travel	SA8: Infrastructure	SA9: Heritage	SA10: Climate	SA11: Water	SA12: Flood risk	SA13: Air quality	SA14: Landscape	SA15: Minerals & soils
Strategy	West 1	--?/?	+++?	--/-?	--	-	-?	--?/--?	+	--?/?	+	-?/?	0	0/-?	-?	--?/--
	West 2	--?/+	--?	+/-?	+++?	+++?	-?	+++?/+?	+	--?/?	+	0/?	0	0/0?	--?	--?/--
	West 3	-- ?/++	++	+/-?	++	++	--?	+++?/+?	+	--?/?	+	0/0?	0	0/-?	--?	--?/--
	West 4	-- ?/++	++	+/-?	++	++	--?	+++?/+?	+	--?/?	+	0/?	0	0/-?	--?	--?/--
	West 4a	-- ?/++	++	+/-?	++	++	--?	+++?/+?	+	--?/?	+	0/?	0	0/-?	--?	--?/--
	West 5	-- ?/++	++	+/-?	++	++	--?	+++?/+?	+	--?/?	+	0/?	0	0/-?	--?	--?/--
	West 6	-- ?/++	++	+/-?	++	++	--?	+++?/+?	+	--?/?	+	0/?	0	0/0	--?	--?/--
	West 7	-- ?/++	++	+/-	+	++	-?	+?/+?	+	--?/?	+	0/?	0	0/0?	--?	--?/--
	West 8	--?/+	++	+/-?	++	++	-?	+?/+?	+	--?/?	+	0/?	0	0/0?	--?	--?/--
	West 9	--?/+	++	+/-?	++	++	-?	+++?/+?	+	--?/?	+	-?/?	0	0/0?	--?	--?/--
	West 10	--?/+	++	+/-?	++	++	-?	+++?/+?	+	--?/?	+	-?/?	0	0/-?	--?	--?/--
West 11	--?/+	++	+/-?	++	++	--?	+++?/+?	+	--?/?	+	-?/?	0	0/0?	--?	--?/--	

**Table 1.10: Summary of SA scores for spatial strategies west of Colchester when fully built out**

		SA objective														
		SA1: Communities	SA2: Homes	SA3: Health	SA4: Centres	SA5: Economy	SA6: Biodiversity	SA7: Travel	SA8: Infrastructure	SA9: Heritage	SA10: Climate	SA11: Water	SA12: Flood risk	SA13: Air quality	SA14: Landscape	SA15: Minerals & soils
Strategy	West 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	West 2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	West 3	-- ?/++	++?	++/-?	++	++	--?	++?/++?	+	--?/?	+	0/0?	0	0/-?	--?	--?/--
	West 4	-- ?/++	++?	++/-?	++	++	--?	++?/++?	+	--?/?	+	0/?	0	0/-?	--?	--?/--
	West 4a	-- ?/++	++?	++/-?	++	++	--?	++?/++?	+	--?/?	+	0/?	0	0/-?	--?	--?/--
	West 5	-- ?/++	++?	++/-?	++	++	--?	++?/++?	+	--?/?	+	0/?	0	0/-?	--?	--?/--
	West 6	-- ?/++	++?	++/-?	++	++	--?	++?/++?	+	--?/?	+	0/?	0	0/0	--?	--?/--
	West 7	-- ?/++	++	++/-	+	++	-?	++?/++?	+	--?/?	+	0/?	0	0/0?	--?	--?/--
	West 8	--?/+	++	+/-?	++	++	-?	++?/++?	+	--?/?	+	0/?	0	0/0?	--?	--?/--
	West 9	--?/+	++?	+/-?	++	++	-?	++?/++?	+	--?/?	+	-?/?	0	0/0?	--?	--?/--
	West 10	--?/+	++?	+/-?	++	++	-?	++?/++?	+	--?/?	+	-?/?	0	0/-?	--?	--?/--
West 11	--?/+	++?	+/-?	++	++	--?	++?/++?	+	--?/?	+	-?/?	0	0/0?	--?	--?/--	

## East of Colchester

- 1.75 East of Colchester, the choice of strategies is more straightforward. As previously described for West of Colchester, proportionate (percentage) growth East of Colchester (East 1) also performs less well across a number of the SA objectives than the other spatial strategy alternatives, and therefore can be considered less sustainable. Similarly, proportionate (hierarchy) growth (East 2) does not perform well because it would lead to considerable development at Brightlingsea, which is not a sustainable location for strategic growth due to its poor accessibility and environmental sensitivities. Notably it would also fail to deliver sufficient housing within the Plan period.
- 1.76 With respect to the remaining spatial strategies (East 3, East 4, East 5 and East 6):
- In the longer term, the effects on existing communities and also the effects arising from the new communities would be similar in terms of significance (SA objective 1).
  - All would deliver the homes required in the Plan period (SA objective 2).
  - In terms of access to health care, East 3, East 4 and East 5 perform better than East 6 in the longer term, because they will provide for a scale of development sufficient to accommodate a health care facility (SA objective 3). On the other hand, East 5 could be subject to significant adverse effects from noise pollution.
  - East 3 and East 4 are considered to perform more strongly with respect to access to local centre facilities (SA objective 4) at the end of the Plan period, however East 6 also performs well after the Plan period.
  - East 3 and East 4 are considered to perform more strongly with respect to the economy (SA objective 5) at the end of the Plan period, however East 5 also performs well after the Plan period.
  - East 3 and East 5 are anticipated to perform less negatively than East 4 and East 6 with respect to biodiversity (SA objective 6).
  - The main advantage of East 6 when fully built out is with respect to longer journeys and easy access to railway stations (SA objective 7) which is reinforced by the strong commuting relationship between Tendring and Colchester. This would also feed into effects on carbon emissions from traffic (SA objective 10). On the other hand, the rural locations could lead to longer journeys by car for those journeys where rail is not a realistic choice. For shorter journeys, East 3, East 4 and East 5 perform most strongly.
  - All of the remaining spatial strategy alternatives could potentially have a significant negative effect on heritage assets (SA objective 9). All of the spatial strategy alternatives with the exception of East 4 also have the potential for significant effects on the townscape of nearby settlements due to their scale, but whether these effects would be positive or negative is uncertain.
  - None of the remaining spatial strategy alternatives were identified as having significant effects with respect to water (SA objective 11), flood risk (SA objective 12) or air quality (SA objective 13).
  - All of the remaining spatial strategy alternatives were considered to have potentially significant adverse effects with respect to landscape (SA objective 14).
  - All of the remaining spatial strategy alternatives were considered to have potentially significant adverse effects with respect to minerals and likely to have significant adverse effects with respect to soils (SA objective 15).
  - In many instances, there was uncertainty with respect to the effects identified as it may be possible to include mitigation, taking into account the scale of the strategic sites, and how development is designed and delivered.
- 1.77 East 3 is the Garden Community proposed in the submitted Section 1 Local Plan. Its main disadvantage compared to some of the other spatial strategies is that it is not on a rail link and as a result, a Rapid Transit connection to Colchester and beyond is proposed. It is, though, close to the University of Essex, albeit separated by the A133 dual carriageway. The site is also separated from the urban area of Colchester by Salary Brook Local Nature Reserve, which will help to retain distinctiveness between the communities and act as a resource for both existing and new communities, but may act as a barrier to integration.

- 1.78 Although East 4 performs as well as some of the alternative spatial strategies for the East of Colchester, it would, in effect result in the complete surrounding of Bullock Wood SSSI by development, adding to the development that already exists to the west of this ancient woodland SSSI. In terms of maintaining ecological networks, and potential disturbance effects, this is considered to be a particularly significant risk. It also has no rail link into Colchester.
- 1.79 In many respects, East 5 performs as well as East 3, although no better. It has the advantage of an existing employment area on site, and would retain its own distinctiveness being separated by some distance from Colchester town. Its location on the A120 and its distance from Colchester could encourage a high proportion of journeys by car.
- 1.80 East 6 is designed to operate as a chain of settlements along the Clacton to Colchester rail route, with stations within walking distance and use of rail facilitated by proposed increases in the frequency of services. The chain of settlements would support one another, as well as link into Colchester as the main commuting destination. In this respect it has many advantages, although the rural location of the four settlements could encourage car journeys, notwithstanding the opportunity to travel by train. In other respects, this spatial strategy does not perform any better than the alternatives. It is being promoted by local people rather than landowners or developers, which suggests that it may have a groundswell of support, but it is less certain whether it is deliverable in practice, and therefore there are risks attached.
- 1.81 Summaries of the assessment findings for the sites East of Colchester within the Plan period (Table 1.11) and when fully built out (Table 1.12) are included below.

**Table 1.11: Summary of SA scores for spatial strategies east of Colchester within the Plan period**

		SA objective														
		SA1: Communities	SA2: Homes	SA3: Health	SA4: Centres	SA5: Economy	SA6: Biodiversity	SA7: Travel	SA8: Infrastructure	SA9: Heritage	SA10: Climate	SA11: Water	SA12: Flood risk	SA13: Air quality	SA14: Landscape	SA15: Minerals & soils
Strategy	East 1	--?/?	--	--?/0	-	+	--?	-?/-?	-?	--?/?	+	0/?	0	0/-?	--?	--?/--
	East 2	--?/?	--	?/0	+++?	+++?	--?	+++?/-?	-?	--?/?	+	0/?	0	0/-?	--?	-?/--
	East 3	--?/++	++	+/-	++	++	-?	+++?/+?	+	--?/?	+	0/0?	0	0/-?	--?	--?/--
	East 4	--?/++	++	+/-	++	++	--?	+++?/+?	+	--?/0	+	0/0?	0	0/-?	--?	--?/--
	East 5	--?/++	++	+?/--	+	+	-?	+++?/-?	+	--?/?	+	0/?	0	0/-?	--?	--?/--
	East 6	-?/+	++	+/0?	+	?	--?	?/+?	+	--?/?	+	-?/?	-?	0/0	--?	--?/--

**Table 1.12: Summary of SA scores for spatial strategies east of Colchester when fully built out**

		SA objective														
		SA1: Communities	SA2: Homes	SA3: Health	SA4: Centres	SA5: Economy	SA6: Biodiversity	SA7: Travel	SA8: Infrastructure	SA9: Heritage	SA10: Climate	SA11: Water	SA12: Flood risk	SA13: Air quality	SA14: Landscape	SA15: Minerals & soils
Strategy	East 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	East 2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	East 3	--?/++	++?	++/-	++	++	-?	+++/?	+	--?/?	+	0/0?	0	0/-?	--?	--?/--
	East 4	--?/++	++?	++/-	++	++	--?	+++/?	+	--?/0	+	0/0?	0	0/-?	--?	--?/--
	East 5	--?/++	++?	+++?/--	+	++	-?	+++?/-?	+	--?/?	+	0/?	0	0/-?	--?	--?/--
	East 6	--?/++	++	+/0?	++?	+	--?	+?/+++?	+	--?/?	+	-?/?	-?	0/0	--?	--?/--

## Transport infrastructure

1.82 The NEAs' paper on the 'Identification of Spatial Strategy Alternatives' sets out infrastructure assumptions that are specific for each spatial strategy alternative. A number of the alternatives include road improvements, and several include provision for a Rapid Transit System. These infrastructure proposals will go through their own assessment processes, but some observations are provided below for the purposes of the SA.

### *Rapid Transit System*

1.83 A number of the spatial strategy alternatives include a Rapid Transit System to support the development strategy proposals, although detailed evidence has only been prepared to support the development proposals that are included in the Section 1 Local Plan.

1.84 In order to achieve ambitious targets for modal shift to public transport, the research undertaken on behalf of the NEAs suggests that the following headline measures will be required<sup>7</sup>:

- Providing high quality links into existing public transport networks and forward funding public transport infrastructure to provide quick connections to key destinations, driving demand.
- A high degree of segregation and priority for public transport is required to deliver fast and reliable journey times.
- Use of powers from the Bus Services Act (such as Quality Bus Partnerships) will ensure high quality (comfortable – pleasurable and productive) services and best use of dedicated infrastructure.
- Provision of high frequency bus services from opening of new development provides a reliable service to new residents, encouraging use of the Rapid Transit System.
- Integrated ticketing makes it easier to use public transport and allow simple fare structures to be developed that encourage high levels of use.

1.85 The Rapid Transit System evidence base report<sup>8</sup> breaks the Rapid Transit System network down into four components:

- Route 1: Tendring Colchester Borders Garden Community – Colchester Town Centre – Colchester North Park & Ride.
- Route 2: Colchester – Colchester Braintree Borders Garden Community.
- Route 3: Braintree – West of Braintree Garden Community – Great Dunmow – Easton Park – Stansted.
- Route 4: Colchester Braintree Borders Garden Community – Braintree.

1.86 Each of the routes has alternative alignment options, including interim options.

1.87 The report notes that it is anticipated that some sections will initially use existing infrastructure, especially where there is reasonable capacity for Rapid Transit System operation within current traffic levels but that priority measures are suggested where these may be required as the network develops.

1.88 By 2033, it is expected that two Rapid Transit System sub-systems will be successfully operating: The Colchester sub-system; and a West of Braintree sub-system. At some point after 2033 the report states that it would be an aspiration to connect the subsystems via Route 4, but the report makes clear that neither Rapid Transit System viability nor growth of the Garden Communities depends on this connection being made.

1.89 The Rapid Transit System forms an integral part of the proposals for delivering the three Garden Communities as proposed in the Section 1 Local Plan. In this respect, it could also serve a number of other spatial strategy alternatives as described in the NEA 'Identification of Spatial Strategies Alternatives' paper, although presumably in different variations from the proposed Rapid Transit System in the Section 1 Local Plan.

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<sup>7</sup> ITP (July 2019) Mode Share Strategy for the North Essex Garden Communities

<sup>8</sup> Essex Highways (July 2019) Rapid Transit System for North Essex

- 1.90 If successfully implemented, the Rapid Transit System offers a very real opportunity to achieve modal shift from the car, although the extent of the shift is dependent upon implementation of the measures set out in the 'Mode Share Strategy for the North Essex Garden Communities' report (summarised above).
- 1.91 The Rapid Transit System also offers opportunities to provide high quality public transport links to other components of the public transport network, most notably the mainline rail stations. This would help to address the constraints on 'Acceptable' walking distance that the SA has identified in relation to some of the strategic sites.
- 1.92 However, in terms of service provision, it is likely that service frequency would improve as the garden communities increase in scale and demand rises. In addition, the phasing of delivery could be an issue, particularly with respect to Route 4, which forms an important link between the Colchester and Braintree sub-systems. The Essex Highways report describes this as "an aspiration" and suggests this would be delivered after 2033, and is not essential to the operation of the two sub-systems. If for any reason it is not delivered, it can be assumed the benefits in terms of modal shift would not be as great as if it were in place.
- 1.93 Modal shift to a comprehensive network Rapid Transit System would help to deliver significant positive effects in terms of SA objective 3 (Health), SA objective 7 (Sustainable travel), SA objective 8 (Infrastructure), SA objective 10 (Climate), and SA objective 13 (Air quality).
- 1.94 There has been no detailed environmental assessment of the Rapid Transit System route options to date. For the purposes of this SA, it should be noted that the majority of the route options follow existing transport corridors, but that there is considerable historic interest along some of these corridors, both within the urban areas and the more rural route options, especially listed buildings. In addition, if new routes are considered this could affect ecological networks, and it is also of note that the geological Marks Tey Brickpit SSSI could be close to the alignment of one of the routes. Therefore, there could be negative effects on SA objective 6 (Biodiversity) and SA objective 9 (Heritage), but with the level of detail currently available it is not possible to determine the extent and significance of these potential effects, nor the scope for mitigation.

#### *Rail services*

- 1.95 The Braintree Infrastructure Delivery Plan notes that the Great Eastern Mainline railway operates at capacity on trains to and from London in the peak hours<sup>9</sup>, although the Colchester Infrastructure Delivery Plan states that "*the train operating company is making a substantial investment in rolling stock to provide new faster, higher capacity trains with more operational flexibility than the current trains. The new trains will be introduced from 2019/20*"<sup>10</sup>.
- 1.96 The SA has assumed that accessibility to the rail network will bring significant positive effects with respect to a number of SA objectives, but this is predicated on there being the capacity on these lines to cater for the increase in demand that will inevitably arise as a result of development under many of the spatial strategy alternatives, especially those that propose significant growth in close proximity to stations on the Great Eastern mainline (i.e. West 3, West 4 and 4a, West 5, and West 7). It should be noted that the Braintree Section 2 Local Plan already allocates a considerable amount of development at Kelvedon, Hatfield Peverel and Witham, where mainline stations are located.
- 1.97 The Braintree Infrastructure Delivery Plan notes that "*capacity improvements on the Braintree branch line, specifically the construction of a passing loop, were identified as an infrastructure requirement in the adopted Braintree Core Strategy (2011) to support growth in the whole District. Work is being undertaken to develop options for improving the line. It is expected, if improvements that facilitate a higher frequency of trains can be made, that this will help encourage more trips by train, which is of significance given the high number of car trips in, to and out of Braintree town.*" Therefore, spatial strategy alternatives that include proposed development at Braintree (i.e. West 2 and West 7), would be more likely to achieve positive effects if the services on the Braintree branch line received the necessary improvements.

<sup>9</sup> Trpy Planning & Design, Navigus Planning (October 2017) Braintree Infrastructure Delivery Plan Report Final Report - updated

<sup>10</sup> Trpy Planning & Design, Navigus Planning (October 2017) Braintree Infrastructure Delivery Plan Report Final Report - updated

1.98 The success of the CAUSE Metro Plan proposal (East 6) is dependent upon there being improvements to the services on the Colchester to Clacton-on-Sea line. CAUSE propose that rail services be reorganised from a commuter service to Colchester and onwards to London to a locally focussed 'shuttle' service and a new timetable providing trains every 15 minutes and through services to the Anglia main line every 30 minutes. Currently, the service is much less frequent than this, with small gaps between some trains and large gaps between others, even at peak times.

#### *Other transport infrastructure*

- 1.99 A number of the spatial strategy alternatives will rely on other infrastructure to support their delivery including upgrades to the A12 and A120. These potential transport infrastructure improvements have not been individually assessed as part of the Additional SA, and environmental assessment studies would need to be undertaken at the project level. In some instances, the projects already have funding in principle (e.g. upgrading of the A12 or Millennium Slipways at Galley's Corner roundabout), some are currently at the application stage, others would be incorporated within the proposed development envelope (e.g. A120 to A133 link road within East 3), and others have little in the way of detail.
- 1.100 In general, improvements to road capacity can help to ease congestion and localised air pollution issues (SA objective 13) and help to support the economy (SA objective 5), with potential negative effects on environmental assets such as biodiversity (SA objective 6) and heritage (SA objective 9), dependent upon the assets that could be affected and the interaction with the alignment and land take of the improvements, and mitigation measures proposed. There is also some evidence that improved roads can actually lead to additional traffic that would otherwise not have occurred (known as 'induced demand').
- 1.101 For the purposes of this Additional SA, it is not possible to come to definitive conclusions whether the impacts of traffic will increase or decrease as a result of the road infrastructure improvements proposed under each of the spatial strategies, but a risk exists that it will increase through induced demand.

#### **Scale of development**

- 1.102 Although, with the possible exception of West 2, East 1 and East 2, all of the spatial strategy alternatives should be capable of delivering the housing required in the plan period, when fully built out they will be very different in scale. Depending upon the combination of East of Colchester and West of Colchester spatial strategy alternatives selected, when fully built out the additional housing stock could range from an additional 7,500 homes to approximately another 40,500 homes in total, over and above those already accounted for as commitments and Section 2 Local Plan allocations, once fully built out.
- 1.103 For stand-alone new settlements, around 4,500 to 5,000 homes would be sufficient to deliver a secondary school and a health care facility in addition to a range of other services and facilities that might be expected to be delivered at smaller scales. Beyond this threshold, there may be advantages to further growth, as additional services and facilities are provided, further employment land is incorporated to meet the needs of new residents, and frequent public transport services become ever more viable as demand increases. It is not possible to ensure self-containment, but it might be considered that the larger scale, the more likely that an element of self-containment could be achieved with appropriate provision of services, facilities, infrastructure, and employment within the new development.
- 1.104 Set against this would be the potential environmental effects of larger scale development, and if intensity of land use increases, such effects may increase. Larger scale development is also more likely to generate a greater sense of change in character of the North Essex landscape as it becomes more urbanised. On the other hand, larger scale development potentially offers greater scope to avoid the most significant effects and incorporate mitigation. Higher density developments, though, are more likely to encourage walking and ease of accessibility to services and facilities and public transport services, although they may also generate greater traffic and congestion.

- 1.105 The effects of large scale new settlements on existing settlements are also difficult to predict, depending upon whether the new settlements complement or compete with them for investment, jobs, services and facilities, and how well they are connected.
- 1.106 Urban extensions, on the other hand, are not normally designed to be 'self-contained', but instead to be part of the settlement to which they are attached, sharing services and facilities and access to jobs, with varying degrees of success. The larger the scale of urban extension, the more likely it is that they will take on their own character and sense of place, and provide for some services and facilities within the development, but this in turn can place strains on transport routes into the 'host' settlement and the capacity of its town centre services and facilities to cater for the increased demands placed upon them.
- 1.107 Finally, it should be noted that landscape character is a reflection of both the countryside and the cities, towns and villages that lie within it. Some of the most highly valued environmental assets can be found within built-up areas, reflecting the many periods of development that have taken place over hundreds of years. The historic towns of North Essex are a good example of this, and demonstrate that new development today has the potential to become tomorrow's heritage. In terms of effects, therefore, the attention paid to high quality design is essential, so that future generations can value the development we build today, just as we value some of the townscapes that were built by generations in the past.

## Cumulative effects

- 1.108 Chapter 6 of the original SA Report focuses on the appraisal of the cumulative and synergistic effects of the submitted policies in the Section 1 Local Plan.
- 1.109 The appraisal of cumulative effects in the Additional SA instead focuses on the likely cumulative effects of alternative strategic sites and spatial strategies with existing commitments and allocations in the Section 2 Local Plans, planned development in neighbouring Districts and Boroughs, and the cumulative effects of the different scales of development under the alternative spatial strategies. In this regard, reference has been made to potential cumulative effects in the strategic site assessments and the spatial strategy assessments, as well as in the commentary on the spatial strategy alternatives above.
- 1.110 In terms of the main findings, the larger scale strategic site alternatives and the larger scale spatial strategy alternatives are likely to give rise to more significant negative effects, for example in relation to biodiversity (SA objective 6), heritage (SA objective 9), air quality (SA objective 13), landscape (SA objective 14), and soils and minerals (SA objective 15), and the greater the pressure on water resources (SA objective 11).
- 1.111 In relation to water resources, evidence indicates that water resources within Essex are currently subject to significant levels of stress and will continue to be in the future and that the locations of the garden communities are within areas of moderate to serious water stress as defined by the Environment Agency. There is limited potential for local abstraction to support major site development at a local level and therefore, reliance on strategic water resource management and movement of water into the area is required to sustain growth and demand for potable water.<sup>11</sup> This baseline situation is likely to be relevant to all the spatial strategy alternatives, but those that propose lower scales of growth are likely to cause less stress than the higher levels of growth in terms of increases in demand. In relation to the ability of wastewater treatment infrastructure to serve the cumulative scale of growth, although evidence relating to the submitted Local Plans<sup>12</sup> indicates that there are no 'showstoppers', there are drawbacks identified for all the wastewater strategies discussed.
- 1.112 Conversely, the larger scale strategic site alternatives and larger scale spatial strategy alternatives offer the opportunity to deliver significant positive effects in relation to housing delivery (SA objective 2) and the economy (SA objective 5).

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<sup>11</sup> AECOM (2017) North Essex Garden Communities Integrated Water Management Strategy Stage 1 Report

<sup>12</sup> *ibid*

- 1.113 With respect to sustainable travel (SA objective 7) and infrastructure (SA objective 8), larger scale development will place greater demands on the transport network and other infrastructure, but may also offer opportunities to secure investment (e.g. in the Rapid Transit System or improved rail services on the Colchester to Clacton-on-Sea railway line).
- 1.114 Committed development and allocations in the Section 2 Local Plans already focus development at the larger settlements of Colchester (particularly to the north and west of the town), Braintree (particularly to the north and west and to the south around Great Notley) and Clacton-on-Sea (to the north and west), with considerable development also proposed for the A12/Great Eastern mainline corridor at Witham and Kelvedon.
- 1.115 The strategic urban extension alternatives tend not to be in close proximity to the main commitments and allocations in the Section 2 Local Plans, but they will add to the development already proposed for these settlements. This could add to congestion (SA objective 7), air pollution (SA objective 13) and change in character to these settlements (SA objective 9 and SA objective 14), although they could also help to provide support for town centre services and facilities (SA objective 4) and their economies (SA objective 5). The Garden Community alternatives to the north and east of Colchester are closely related to Colchester itself and could therefore have similar effects as the strategic urban extensions, including potential impacts on the AQMAs in the town centre and along the A12 (SA objective 13), notwithstanding the potential to include a Rapid Transit System or other transport improvements. Although Halstead is not earmarked for as much growth as the other larger settlements in North Essex, an additional strategic urban extension to this town would significantly increase the size of the settlement (with effects on SA objective 1, SA objective 4, SA objective 9 and SA objective 14), although it could assist in the delivery of a bypass for the town (SA objective 8).
- 1.116 The strategic site and spatial strategy alternatives that focus development along the A12/Great Eastern mainline corridor would add to the development already proposed in this corridor at places like Witham and Kelvedon, resulting in an increased urbanisation effect described earlier in this Additional SA Report (SA objective 14). There is also considerable heritage interest along this corridor (SA objective 9), which could be cumulatively affected by further development.
- 1.117 The CAUSE Metro Plan would result in four further expanded settlements along the Colchester to Clacton-on-Sea railway line, to add to the development already committed or allocated in the Section 2 Local Plans, and would be likely to change the character of this chain of settlements. They could also lead to increased traffic in a more rural location, notwithstanding improved rail services (SA objectives 7 and 8). Conversely, the combination of these settlements may give an opportunity to deliver a wider range of services and facilities, including potentially a secondary school, to serve them (SA objective 1 and SA objective 4).
- 1.118 The Garden Community alternatives to the west of Colchester, and also Tendring Central Garden Village to the east of Colchester, would not adjoin the main settlements of North Essex, and therefore their cumulative effects with committed and Section 2 Local Plan allocations would be indirect. However, cumulatively, they would lead to the introduction of urban development within predominantly more rural areas, some adjoining or encompassing existing communities changing the character of these locations (SA objective 1, SA objective 9 and SA objective 14).
- 1.119 The west of Braintree Garden Community would combine with the proposed development in Uttlesford, of which it would form part. The SA of the Uttlesford component of the West of Braintree Garden Community identified the potential for similar significant positive and negative effects as this Additional SA has identified for the North Essex component of the West of Braintree Garden Community (i.e. significant negative effects with respect to biodiversity, landscape, soil/sustainable use of land and historic environment, and significant positive effects with respect to sustainable methods of travel, accessibility to services, housing, resources and infrastructure, education and skills<sup>13</sup>).
- 1.120 In other adjoining districts, Chelmsford's submission Local Plan provides for nearly 22,000 additional dwellings and 11,000 new jobs in the period 2013 to 2036, with significant commitments or allocations to the north-east of Chelmsford including at Great Leighs<sup>14</sup>. Although

<sup>13</sup> AECOM (December 2018) Sustainability Appraisal (SA) for the Uttlesford District Council Local Plan

<sup>14</sup> Chelmsford Council (January 2018) Chelmsford Draft Local Plan (Regulation 19 - Publication Draft)

the proposed developments in Chelmsford are closely related to the A131 corridor (which goes to Braintree), Chelmsford itself is on the same A12/Great Eastern mainline corridor as some of the North Essex strategic site and spatial strategy alternatives. The combination of development is likely to add to pressure on these transport routes, with potentially adverse effects on sustainable travel (SA objective 7) and air quality (SA objective 13), noting that Chelmsford has AQMAs. This is particularly the case given the strong relationship of Chelmsford with Braintree and Colchester in terms of travel movements.

- 1.121 Also to the south of North Essex is Maldon District, whose Local Plan provides for 4,650 dwellings and 2,000 net additional jobs between 2014 and 2029<sup>15</sup>, adding to potential cumulative effects, although to a lesser extent than Chelmsford.
- 1.122 To the north, the Ipswich adopted Local Plan<sup>16</sup> provides for at least 9,777 new dwellings and 12,500 new jobs between 2011 and 2031, and the Regulation 18 joint Babergh and Mid Suffolk Local Plan<sup>17</sup> provides for 7,560 additional dwellings between 2018 and 2036. The relationship of North Essex with Babergh and Ipswich is not as strong as the relationship of Colchester and Braintree with Chelmsford in terms of commuting patterns, so cumulative effects are unlikely to be as significant. However, the A12/Great Eastern mainline corridor connects Chelmsford with Ipswich, via North Essex, which could lead to further cumulative effects in relation to travel (SA objective 7), infrastructure (SA objective 8) and air quality (SA objective 13), both within North Essex and beyond.
- 1.123 The cumulative development across all the districts will place further pressure on environmental assets and resources, including biodiversity (SA objective 6), heritage (SA objective 9), water resources (SA objective 11), landscape (SA objective 14) and soils and minerals (SA objective 15), although without detailed sub-regional studies it is not possible to determine whether these will be significant at the sub-regional scale.

## Conclusion

- 1.124 The SA of alternative strategic sites showed that many perform similarly against the SA objectives.
- 1.125 With respect to alternative strategic spatial strategies, the clearest conclusion is that those spatial strategies that rely solely on proportionate growth (percentage) are the poorest performing, but for others the differences are much more finely balanced. No spatial strategies stood out as performing much more strongly than the others. None of the spatial strategies are without challenges with respect to environmental assets, such as biodiversity, heritage, minerals and best and most versatile agricultural land.
- 1.126 To the west of Colchester, the choice of strategy is complicated. Those alternatives that include strategic urban extensions (e.g. to Braintree or Halstead) offer the opportunity to be integrated with existing settlements. However, east of Braintree would be severed from Braintree by the Braintree eastern bypass which represents an important eastern limit to the town. Halstead has no rail service and is not in the key commuting corridors.
- 1.127 The other alternatives tend to offer different combinations of new settlements and/or extensions of existing smaller settlements. Those that are associated with the Great Eastern mainline offer use of existing infrastructure and sustainable access to key commuting destinations including Colchester, Chelmsford and London (although concerns have been expressed by local people of the capacity of this route to cater for additional demand at peak times). The opportunity to introduce a coherent and integrated Rapid Transit System to cater for other commuting routes, particularly east-west and to Stansted could be of considerable benefit since these routes are currently poorly served by more sustainable modes of transport. Therefore those alternatives that offer a combination of both access to existing rail and investment in Rapid Transit System perform strongly in sustainable transport terms.

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<sup>15</sup> Maldon District Council (July 2017) Approved Local Development Plan 2014 – 2029

<sup>16</sup> Ipswich Borough Council (February 2017) Core Strategy and Policies Development Plan Document Review

<sup>17</sup> Babergh \* Mid Suffolk Councils (July 2019) Babergh and Mid Suffolk Local Plan Preferred Options Consultation (Regulation 18)

- 1.128 To the east of Colchester, it appears to be a choice between three alternatives. East 1, being proportionate (percentage) growth does not perform well compared to the alternatives. East 2 does not perform well because it would lead to considerable development at Brightlingsea, which is not a sustainable location for strategic growth due to its poor accessibility and environmental sensitivities. East 4 has potentially significant biodiversity issues due to its potential impact on Bullock Wood SSSI. This leaves East 3 (the Garden Community on the Colchester/Tendring Borders), East 5 (Tendring Central Garden Village), and East 6 (the CAUSE Metro Plan).
- 1.129 East 6 offers the considerable advantage of being on an existing railway line which links into important commuting destinations for people in Tendring (Colchester and Clacton-on-Sea, Kirby Cross, Frinton-on-Sea and Walton-on the-Naze). Taken together, the four constituent growth locations along the railway line form a critical size to support a range of services and facilities, although individually they do not. They are also rural in character, and all four settlements are earmarked for considerable growth through existing commitments and Section 2 Local Plan allocations.
- 1.130 East 3 and East 5 offer similar opportunities to develop a coherent development that incorporates a good range of services and facilities. Both have the drawback of not being on a rail route, although East 3 offers the opportunity to be connected to Colchester and beyond by the Rapid Transit System and is close to the university. East 5 has the advantage of an existing employment area and good connections to the strategic road network.
- 1.131 It is therefore not possible to come to a definitive conclusion that any one strategy, whether west of Colchester or east of Colchester, is the most sustainable option. The advantage of the Section 1 Local Plan as it stands is that it provides clear direction for strategic development to accommodate North Essex over many decades to come and therefore more certainty in terms of coherence and investment, including in new transport infrastructure, services and facilities. However, some of the alternatives offer opportunities to deliver similar benefits.
- 1.132 It should be noted that the scale of development proposed in the Section 1 Local Plan is considerable and will change the character of parts of North Essex, and the effects on the role and function, and relationship between the new and existing settlements is uncertain – if they complement and support one another, then this would be of benefit, but if they compete for investment and resources this could be a dis-benefit. Some of the other alternatives propose a similar scale of development and therefore offer similar opportunities and risks. The alternatives that propose lower amounts of growth would be less likely to alter the character of North Essex and relationships between settlements, but on the other hand may be less likely to attract the scale of investment of the larger scale alternatives. In addition, in the longer-term, it is likely that there will continue to be a need for more development, and so in future years (planning to well beyond the Plan period), similar decisions will need to be made about where the additional growth should go. Under the larger scale alternatives, this decision will already have been made.
- 1.133 Finally, it is worth mentioning that the pace of change of technology, the introduction of 'smart city' thinking, and planning for climate change (both in terms of a net zero carbon future, and adaptation to the effects of climate change), could result in changes in the way that we live our lives that are difficult to comprehend given our embedded lifestyles and, in particular, our reliance on fossil fuels and the private car. It is therefore important that any strategy is future proofed and flexible enough to accommodate these changes as and when they arise.

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