

A12 Chelmsford to A120 widening scheme

TR010060

5.2 Consultation Report Annex R: Community Gardens Correspondence

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NORTH ESSEX AUTHORITIES

Shared Strategic (Section 1) Plan

Inspector: Mr Roger Clews

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Address: Examination Office, PO Box 12607, Clacton-on-Sea, CO15 9GN

To:

Emma Goodings, Head of Planning and Economic Growth, Braintree District Council

Karen Syrett, Planning and Housing Manager, Colchester Borough Council

Gary Guiver, Planning Manager, Tendring District Council

15 May 2020

Dear Ms Goodings, Ms Syrett and Mr Guiver

EXAMINATION OF THE SHARED STRATEGIC SECTION 1 PLAN

Introduction

Purpose of this letter

1. My letter to the North Essex Authorities [NEAs]¹ of 8 June 2018 [examination document IED/011] set out the shortcomings which, on the evidence available to me at that time, I had identified in the submitted Section 1 Plan and its evidence base. My letter went on to outline the significant further work which I considered the NEAs would need to undertake in order to address those shortcomings, and to set out three options for taking the examination forward.
2. The NEAs decided to pursue Option 2, which involved them producing and commissioning a number of additional evidence base documents with the aim of overcoming the deficiencies I had identified. The examination of the Section 1 Plan was paused from December 2018 until the end of September 2019 while this further work was carried out and public consultation on the additional evidence took place. I read all the responses to the public consultation, and held further hearing sessions in January 2020 focussing mainly on the additional evidence base documents and the responses to them.

¹ The three NEAs in the context of this letter are Braintree District Council, Colchester Borough Council, and Tendring District Council.

3. I am now in a position to advise the NEAs of my findings, based on the evidence currently before me, on the legal compliance and soundness of the Section 1 Plan, and on the options available to them as a result. In giving this advice, I have taken into account all the written and oral evidence and representations that have been submitted to the examination since it began in October 2017.
4. The examination has now been in progress for two-and-a-half years. It would be in no-one's interests for uncertainty to be prolonged any further. My advice in this letter is therefore given on the basis that it is desirable for the examination of the Section 1 Plan to be brought to a conclusion as soon as possible.
5. This letter focusses on the matters that I consider critical to the outcome of the examination, and sets out my views on those matters. My formal recommendations and the full reasons for them will be given in my report to the NEAs at the end of the examination.
6. This letter should be read in conjunction with IED/011 and also with my supplementary letter to the NEAs of 27 June 2018 [IED/012], in which I gave my views, based on the evidence available to me at that time, on the housing requirements set out in policy SP3 of the Section 1 Plan.
7. The Programme Officer recently forwarded to the NEAs a paper entitled *Relevance of Heathrow Court of Appeal Decision for Section 1 North Essex Authorities Local Plan* [EXD/091], submitted by Mrs Pearson of CAUSE and Mr O'Connell. I would be grateful if the NEAs would provide a response to that paper along with their response to this letter. When I have the NEAs' response I will consider whether any further action is needed on this matter.

Context

8. Before addressing the critical matters I have identified, it is necessary to set the context by considering the overall structure and purpose of the Section 1 Plan. Although it was produced by the three NEAs and covers the whole of the Braintree, Colchester and Tendring local authority areas, it was not produced as a joint plan under the provisions of section 28 of the Town and Country Planning Act 2004, as amended ["the 2004 Act"]. Instead, it is intended that the Section 1 Plan (with identical content and wording) will form an integral part of each NEA's individual Local Plan, alongside a Section 2 Plan which each NEA has prepared independently. Because the Section 1 Plan is common to all three NEAs, it is being examined as a single entity, separately from and in advance of the three Part 2 plans.
9. The Section 1 and Section 2 Plans have distinct and complementary roles. Section 1 deals with cross-boundary issues: it provides a spatial portrait of and a strategic vision for the North Essex area, sets out the requirements for housing and employment growth for each of the three districts, and highlights key strategic growth locations across the area². The Section 2 Plans are intended to operate at individual local authority level, providing the strategy for the distribution of, and identifying sites for, most of the new development which each NEA proposes to accommodate in its district.

² See the Section 1 Plan, para 1.13.

10. Most significantly, the Section 1 Plan proposes the development of three garden communities [GCs] in North Essex. Two would occupy cross- boundary sites, at Tendring / Colchester Borders and Colchester / Braintree Borders, to the east and west of Colchester respectively. The third would be to the West of Braintree, next to the border with Uttlesford district.
11. The broad locations identified for the three GCs amount to over 2,000 hectares in total, and the Plan, as submitted, expects them to provide up to 43,000 dwellings altogether. Because of their scale, only a relatively small proportion of the development they are proposed to contain would be completed by the end of the plan period in 2033, with the rest coming forward over several decades into the future. Indeed, it is envisaged that the largest of the proposed GCs would not be completed until around the end of this century.
12. The NEAs have appropriately high aspirations for the quality of development at the proposed GCs. A North Essex Garden Communities Charter, based on the Town & Country Planning Association's Garden City Principles, but adapted for the North Essex context, sets out 10 place-making principles that articulate the Councils' ambitions for the GCs. In accordance with those principles, the Plan itself expects the GCs to exhibit "the highest quality of planning, design and management of the built and public realm"; to "provide for a truly balanced and inclusive community and meet the housing needs of local people ... including 30% affordable housing at each GC"; to "provide and promote opportunities for employment within each new community and within sustainable commuting distance of it"; and to be planned "around a step change in integrated and sustainable transport networks ... that put walking, cycling and rapid public transit networks and connections at the heart of growth in the area"³.
13. These policy requirements appropriately reflect the advice at paragraph 150 of the 2012 NPPF that Local Plans are the key to delivering sustainable development which reflects the vision and aspirations of local communities. More specifically, NPPF paragraph 52 advises that

The supply of new homes can sometimes best be achieved through planning for larger scale development, such as new settlements ... that follow the principles of Garden Cities. Working with the support of their communities, local planning authorities should consider whether such opportunities provide the best way of achieving sustainable development.

In reflecting garden city principles, therefore, the Plan's policies for the GCs are consistent with the NPPF's guidance on the way in which sustainable development can be achieved through the development of garden communities.
14. The Section 1 Plan identifies broad locations for the proposed GCs and contains strategic policies to govern their development. After it has been adopted the NEAs intend to bring forward Strategic Growth Development Plan Documents [DPDs] to define specific areas within the broad locations where development will take place, and to set more detailed requirements for the development of the GCs. The NEAs also envisage that masterplans, and other planning and design guidance, will be prepared for each GC.

³ Submitted Plan policy SP7

My role

15. My role is to examine the Section 1 Plan [hereafter referred to for brevity as “the Plan”] in order to determine whether or not it meets the relevant legal requirements and is sound⁴. In determining its soundness I must have regard to national policy in the National Planning Policy Framework [NPPF] as published in March 2012. (The March 2012 version of the NPPF, rather than the current version, applies in this examination because the Plan was submitted for examination before the date specified in relevant transitional provisions⁵.) If I find that the Plan is not legally-compliant or sound, I am empowered to recommend main modifications to make it so, if the NEAs ask me to.
16. It is this Plan which will establish whether or not the proposed GCs are acceptable in principle. In considering the soundness of the Plan I have been mindful of the need not to stray into matters of detail that would be more appropriately dealt with in the Strategic Growth DPDs or masterplans. I have also paid careful attention to the support given in national planning policy for the development of settlements that follow Garden City principles⁶, and to the fact that the Government has provided direct support for the North Essex GC proposals through its Garden Communities Programme.
17. My examination of the Plan has been informed by a great deal of detailed evidence, both supportive of and critical of the Plan’s proposals. Although it is not possible or indeed necessary for me to refer to every point that was raised in the evidence, I am grateful to everyone who has invested their time and effort in contributing to the examination so far.

The proposed West of Braintree GC and the former emerging Uttlesford Local Plan

18. The former emerging Uttlesford Local Plan, which was under examination until 30 April 2020, contained a proposal to identify land in Uttlesford district to form a cross-boundary GC in combination with the proposed West of Braintree GC in North Essex. Land in Uttlesford district cannot be identified or allocated for development by the NEAs, and so it is not for me in this examination to determine whether or not any such proposal is sound.
19. In January 2020 the Inspectors examining the former emerging Uttlesford Local Plan wrote to the Council expressing significant concerns about the soundness of that plan, and indicating that in their view withdrawal of the plan from examination was likely to be the most appropriate option. In paragraph 2 of their letter, they said

In particular, we are not persuaded that there is sufficient evidence to demonstrate that the Garden Communities⁷, and thus the overall spatial strategy, have been justified. We therefore cannot conclude that these fundamental aspects of the plan are sound.

⁴ The 2004 Act, section 20(5)

⁵ 2019 NPPF, para 214. Any previous national Planning Practice Guidance which has been superseded since the new NPPF was first published in July 2018 also continues to apply.

⁶ 2012 NPPF, para 52

⁷ Three GCs were proposed in the former emerging Uttlesford Local Plan, namely West of Braintree, Easton Park, and North Uttlesford.

20. On 1 May 2020 Uttlesford District Council wrote to notify the Planning Inspectorate of their decision to withdraw the plan. In the light of that decision, and of the examining Inspectors' comments above, no assumption can be made that any of the GC proposals in the former emerging Uttlesford Local Plan will be included, and found sound, in any future version of that plan. I take this into account when considering the Plan as a whole, and the proposed West of Braintree GC in particular.

Legal compliance

21. In IED/011 I concluded that each of the NEAs had met the duty to co-operate in the preparation of the Section 1 Plan, and that they had met the relevant procedural requirements with regard to consultation and submission. There has been no subsequent evidence which alters those conclusions. Nor do I find any evidence that anyone's interests were materially prejudiced by the way in which consultation was publicised and carried out in August and September 2019 on the additional evidence prepared by the NEAs.
22. There are legal obligations on the NEAs to prepare and submit a Habitats Regulations Assessment and a Sustainability Appraisal of the Plan. I consider these below.

Soundness

23. At paragraph 182 the 2012 NPPF advises that the soundness of plans is to be examined by reference to four criteria. The Plan undoubtedly meets the first of these. It has been **positively prepared** with the aim of identifying development and infrastructure requirements for the plan period, and it includes the proposed GCs which are intended to make a substantial contribution to meeting those requirements, both in the plan period and beyond.
24. When considering whether or not the Plan is **justified** – that is, whether it is the most appropriate strategy when considered against the reasonable alternatives – the principal evidence base document before me is the Sustainability Appraisal [SA]. I therefore consider the SA in detail below.
25. The NEAs' purpose in producing the Section 1 Plan was to work across local authority boundaries in order to meet strategic priorities. The key question in deciding whether or not the Plan is **effective**, therefore, is whether it is deliverable.
26. There was some discussion at the hearing sessions about the meaning of the word "deliverable" in this context, and I was assisted by further representations, including legal submissions, on the point. In my view the straightforward meaning of the word, ie "able to be delivered", is to be preferred⁸. But that then raises the question of what it is that must be able to be delivered.
27. The relevant sentence of NPPF paragraph 182 says that the plan should be deliverable. It seems to me that, in this context, the term "the plan" has to be taken to include the policies and proposals in the plan. It would not make sense only to require that the plan document itself is deliverable, if the policies and proposals it contains are not.

⁸ The definition of deliverable sites at footnote 11 in the 2012 NPPF is given in the context of the guidance in NPPF para 47 on the five-year housing land supply, not in the context of the para 182 test.

28. The sentence also includes the qualification “over [the plan’s] period”. It was suggested that this means that I need not consider whether the GC proposals in the Plan are deliverable beyond the end date of the Plan in 2033. But, as will be seen when I consider the SA below, the advantage which the SA identifies for the Plan’s strategy is that “it provides clear direction for strategic development over many decades to come”. In my view, the Plan could not be considered to be sound if I were to find that the proposed GCs were justified having regard to their ability to provide for strategic development over many decades to come, but reached no finding on whether or not they were deliverable beyond 2033.
29. The 2012 NPPF advises at paragraph 177 that it is important to ensure that there is a reasonable prospect that planned infrastructure is delivered in a timely fashion. The Plan’s policies include a comprehensive set of infrastructure requirements for the GCs, which (in accordance with national policy) appropriately reflect the garden city principles that underpin them⁹. In considering whether the GCs are deliverable, therefore, it is also necessary to take into account whether or not the infrastructure necessary to support them is deliverable.
30. Below I consider in detail the deliverability of the necessary supporting infrastructure and of the proposed GCs themselves.
31. The NPPF’s fourth soundness criterion is that the Plan is **consistent with national policy**, that is, it enables the delivery of sustainable development in accordance with the NPPF’s policies. I consider whether or not the Plan meets this criterion in my overall conclusions on soundness.
32. In considering the soundness of the Plan it is also necessary to review, in the light of current circumstances, the conclusions I reached in IED/011 on the housing requirement figures in the Plan. I deal with that matter first.

The housing requirement figures in the Plan

33. By virtue of the transitional provisions referred to at paragraph 15 above, the guidance on determining housing need at paragraph 60 of the 2019 NPPF does not apply to the Plan: instead the assessment of housing need was appropriately carried out based on guidance in the 2012 NPPF and the corresponding PPG. In IED/011 I concluded that the housing requirement figures for each of the NEAs, as set out in submitted policy SP3, represent their respective objectively-assessed housing needs, and accordingly that the Plan’s housing requirements are soundly based.
34. NPPF paragraph 158 requires plans to be based on up-to-date evidence. Given the time that has elapsed since June 2018, it is therefore necessary to consider whether there has been a meaningful change in the situation regarding housing need¹⁰ in North Essex, which would justify a reconsideration of the Plan’s housing requirements.
35. Factors that might indicate a meaningful change in housing need include population and household projections and employment forecasts published since June 2018, and any changes in market signals.

⁹ See paras 12-13 above.

¹⁰ See PPG ID Ref 2a-016-20150227

Population and household projections

36. The official 2016-based household projections, published in September 2018, show higher household growth for Colchester borough and Tendring district over the 2013-37 period than the corresponding 2014-based projections. However, for Braintree district they show the opposite, such that the additional growth in Colchester is effectively matched by lower growth in Braintree. Since Braintree and Colchester are part of the same housing market area, redistribution of household growth from one to the other does not constitute a meaningful change in housing need overall.
37. For Tendring district the evidence from recent population and household projections has to be considered in the context of my finding in IED/011 that the NEAs were justified in not using official household projections as the basis for assessing housing need in the district. My full reasons for reaching that finding are given in IED/011, but to summarise briefly, Tendring has one of the highest rates of Unattributable Population Change [UPC]¹¹ in the country. The evidence before me in June 2018 showed that this was due in substantial part to errors in the migration trend rates used to produce the official population projections, and that it was highly likely that those errors were continuing to distort the official household projections for Tendring, to the extent that the NEAs were justified in using a different basis for assessing future housing need.
38. The official 2016-based sub-national population projections [SNPP] were before me when I considered the issue of UPC in Tendring in IED/011. They form the basis for the 2016-based household projections. Consequently, the publication of the 2016-based household projections does not alter my conclusions on that issue.
39. Since June 2018 the official 2017 and 2018 mid-year population estimates [MYE] have also been published. The fact that the 2018 MYE figure for Tendring closely matches the 2018 population predicted by the 2016-based SNPP is in itself no indication of a meaningful change in the housing situation, since both are informed by the same migration trend rates. I note that the Quality Indicators published alongside the MYEs estimate that there is a relatively low proportion of hard-to-estimate groups (including internal migrants) in Tendring. However, I have seen no evidence that since June 2018 the Office for National Statistics has addressed the specific errors in migration trend rates that gave rise to a substantial part of the exceptional UPC for Tendring.
40. The increasing proportion of older people in the North Essex population may affect the type of housing that needs to be provided, but has no impact on the overall number of dwellings required, as it is accounted for in the population and household projections. Policies on housing type are a matter for the Section 2 Plans.

¹¹ UPC is the term for the unexplained difference between the population change between 2001 and 2011 as estimated by the Censuses in those years, and the population change over the same period as predicted by official projections.

Employment forecasts

41. In calculating objectively-assessed housing needs, account was taken of two 2016 economic forecasts of job growth and associated dwelling requirements over the Plan period. The housing requirements for Braintree and Colchester meet the higher of the dwelling requirements from those two forecasts, from the East of England Forecasting Model [EEFM]. A bespoke economic forecast for Tendring similarly showed that its housing requirement would meet future labour demand in full. As a result, in IED/011 I found that economic growth in North Essex would not be hampered by any lack of housing.
42. Since June 2018 a more recent, 2017 forecast from the EEFM has been published. Compared with the 2016 forecast, it shows a reduction of 96 dwellings per annum [dpa] in the dwelling requirements for Braintree, and an increase of 202dpa for Colchester. For Tendring there is no significant change. On the face of it, these results might appear to indicate a potential increase in housing need for North Essex as a whole.
43. However, whereas the 2016 EEFM forecast for Colchester predicted growth of 928 jobs per annum and a corresponding dwelling requirement of 920dpa, in EEFM's 2017 forecast the jobs per annum figure fell to 724 while the dwelling requirement increased to 1,122dpa. This is a dramatic and apparently anomalous change from EEFM's 2016 figures, and it diverges to an even greater extent from the 2016 forecast by Experian (1,109 jobs per annum, 866dpa).
44. Since I was given no explanation for this apparent anomaly, I consider that substantially less weight should be given to EEFM's 2017 forecast than to the two 2016 forecasts, when assessing housing need. In my experience, economic forecasts can show significant variations from one year to the next, and without corroboration it would be unwise to place reliance on a single set of results. Consequently, I find that the EEFM 2017 forecast does not indicate a need to increase the Plan's housing requirements in order to meet labour demand.

Market signals

45. Evidence of market signals since June 2018 tends to indicate worsening affordability across North Essex in respect of both house prices and rents, relative to England and Wales as a whole. However, worsening affordability trends were already apparent when the objectively-assessed housing needs were assessed in 2016, and were taken into account in uplifting the housing requirement for each of the three NEAs' areas by at least 15% compared with the demographic starting-point.
46. As a result, the Plan already makes substantial provision to improve affordability over the Plan period. It would be unrealistic to expect any turn-around in affordability trends to have occurred in the past one or two years, especially since the Plan has not yet been adopted. No meaningful assessment of the Plan's impact on affordability can be made after such a short time. As a result, recent market signals evidence does not indicate that the Plan's housing requirements need to be reviewed.

Conclusion on the housing requirement figures

47. For these reasons, I conclude that neither the population and household projections and employment forecasts published since June 2018 nor recent evidence from market signals indicate that there has been a meaningful change in the housing situation that I considered in IED/011. Consequently, the Plan's housing requirement figures remain soundly based.

Habitats Regulations Assessment [HRA]

48. In IED/011 I referred to a judgment of the Court of Justice of the European Union [CJEU]¹² and indicated that the NEAs would need to ensure that the HRA report on the pre-submission Plan was consistent with that judgment. In response, the NEAs commissioned Land Use Consultants [LUC] to produce an updated HRA report on the Plan [EB/083]. The updated report takes account of recent caselaw including the judgment I referred to. It concludes:
- ... providing that key recommendations and mitigation requirements are adopted and implemented, the [Plan] will not result in adverse effects on the integrity of European sites either alone or in-combination.
- Natural England concur with this conclusion.
49. The NEAs consider that the Habitats Regulations¹³ do not require an assessment of future growth beyond the Plan period. Nonetheless, both they and LUC made it clear that EB/083 does in fact take account of the implications for European sites of the development beyond 2033 that is proposed in the Plan – ie, future growth at the proposed GCs. In my view that is appropriate, since the Plan's policies envisage that development of the GCs will occur both within the Plan period and for a long period beyond. However, some references in the report appear to indicate that it considers impacts within the Plan period only. The NEAs and LUC should review those references so that the report is consistent on this point.
50. EB/083 follows a sound methodology, beginning with a screening stage to assess the likelihood of significant effects on European sites by the Plan's proposals (alone or in combination). This is followed by an Appropriate Assessment in which any likely significant effects are assessed, in the light of avoidance and mitigation measures, in order to determine whether or not they would result in an adverse effect on the integrity of any European site.
51. I consider that it is reasonable for EB/083 to conclude that main modifications to Plan policies SP5, SP7, SP8, SP9 and SP10, requiring adequate waste water treatment capacity to be provided before dwellings are occupied, will ensure that no adverse impact on any European site will occur as a result of changes in water quality.

¹² People over Wind, Peter Sweetman v Coillte Teoranta [CJEU Case C-323/17]

¹³ The Conservation of Habitats and Species Regulations 2017

52. It is also reasonable for EB/083 to conclude that any adverse impacts arising from loss of offsite habitat¹⁴ for wintering birds will be avoided provided that mitigation safeguards are incorporated into the Plan through a main modification to policy SP8. Those safeguards include requirements for surveys of the broad location of the Tendring / Colchester Borders GC to identify whether it provides any functionally-linked offsite habitat for relevant bird species, and if necessary, phasing of development and provision of alternative offsite habitat to offset any loss resulting from development.
53. The size of the broad location means that there is no real doubt that alternative habitat could be provided on site, through the DPD and master-planning processes, if it were found to be necessary. Accordingly, it is not necessary for the surveys to take place before the Plan itself is adopted.
54. The other cause of likely significant effects identified by EB/083 is the impact of the recreational activities of future residents on European sites along the Essex coast and its estuaries. This is also a concern for other local authorities in Essex. In response, an Essex Coast Recreational avoidance and Mitigation Strategy [RAMS], initiated by Natural England, has been adopted by 11 Essex authorities. Its implementation is managed by a steering group on which Natural England is represented.
55. The RAMS, which is to be funded by a per-dwelling tariff on residential development, involves a range of measures including habitat creation, access management, information and consciousness-raising, and enforcement. EB/083 concludes that the RAMS provides a high degree of certainty that recreational pressures will not lead to adverse effects on the integrity of the European sites.
56. In my view, EB/083 has adequately assessed the likelihood of significant effects arising from recreational activities, including by identifying appropriate zones of influence based on visitor surveys. It may be that measures to control airborne activities, such as powered paragliding, are more difficult to enforce than for land- or water-based activities. But airborne activities involve relatively small numbers of people, whom it would be possible to target with information and education campaigns. Indeed I was told that such campaigns are already under way.
57. The current RAMS covers the period 2018 to 2038. However, the NEAs made it clear that they intend the RAMS approach to operate in perpetuity. Plainly, that will be essential if significant development within the zones of influence is to be able to continue beyond 2038, assuming that the Habitats Regulations (or a similar protection regime) remain in force. Funding arrangements to ensure that it occurs are proposed in the current RAMS document. I therefore see little danger that the RAMS approach will cease after 2038.
58. The RAMS includes provision for monitoring its effectiveness, which it is intended will feed back into the mitigation measures in an iterative fashion, enabling adjustments and improvements to be made in response to evidence of how successful the measures are. In my view this is a strength rather than a weakness of the RAMS approach. While there is currently no conclusive evidence that RAMS approaches elsewhere have ensured that no adverse effects on integrity have occurred, that is not because there is evidence that they have failed, but because they have not been operating long enough for definitive conclusions to be drawn.

¹⁴ "Offsite habitat" in this context means habitat that is not part of a European site but is functionally linked to it, providing ecological support for the bird populations for which the site was designated.

59. Taking into account the mitigation measures, which as well as the RAMS include the proposed modifications to the Plan's policies, the NEAs are satisfied that there is sufficient certainty that the Plan would not adversely affect the integrity of any European site, alone or in combination. In the light of all the above points, I consider that they are justified in taking that view.

Justification for the proposed GCs

Sustainability Appraisal

Background

60. In IED/011 I identified a number of shortcomings in the June 2017 SA of the Plan carried out by Essex County Council [ECC]'s Place Services [SD/001], and made a number of specific suggestions as to how those shortcomings might be rectified. In response, the NEAs commissioned external consultants LUC to carry out an Additional Sustainability Appraisal of the Plan [SD/001b, hereafter "the ASA"], which was completed in July 2019.
61. The ASA does not replace the June 2017 SA in its entirety: its purpose is to address my concerns about the approach of that earlier SA document to the assessment of alternative GC options and of alternative spatial strategies. Accordingly, the ASA replaces Appendix 1 of the June 2017 SA, which deals specifically with these matters, and provides further appraisal information relevant to chapters 4 to 7 of the June 2017 SA. In this letter I focus on the ASA, as it is specifically intended to redress the shortcomings I had previously identified.
62. The ASA has a two-stage methodology, which closely follows my suggestions in IED/011. In Stage 1, LUC appraise alternative strategic sites that could form part of the Plan's spatial strategy. In Stage 2, they appraise a range of alternative spatial strategies, including various combinations of the strategic sites that survive the Stage 1 appraisal. The NEAs themselves decided which strategic sites were taken forward from Stage 1, and which spatial strategic alternatives were to be appraised at Stage 2, giving their reasons in Appendix 6. In Appendix 8 the NEAs give their reasons for preferring the spatial strategy in the submitted Plan to any of the alternative strategies.

National policy and guidance

63. Paragraph 165 of the 2012 NPPF advises that:

A sustainability appraisal which meets the requirements of the European Directive on strategic environmental assessment should be an integral part of the plan preparation process, and should consider all the likely significant effects on the environment, economic and social factors.

64. The PPG defines the role of SA as:

...to promote sustainable development by assessing the extent to which the emerging plan, when judged against reasonable alternatives, will help to achieve relevant environmental, economic and social objectives.

This process is an opportunity to consider ways by which the plan can contribute to improvements in environmental, social and economic conditions, as well as a means of identifying and mitigating any potential adverse effects that the plan might otherwise have. By doing so, it can help make sure that the proposals in the plan are the most appropriate given the reasonable alternatives¹⁵.

65. The reference to “help[ing] make sure that the proposals in the plan are the most appropriate given the reasonable alternatives” indicates that SA is directly relevant to the assessment of whether the plan meets the “justified” test of soundness. As I noted in paragraph 24 above, in this case the SA (including the ASA) is the principal evidence base document which seeks to show that the Plan meets that test.

Issues to be considered

66. In my view the NEAs have met the relevant statutory requirements for consultation on and submission of the SA and ASA reports. In assessing the likely significant effects on the environment of the GC proposals in the Plan and of the reasonable alternatives to them which it identifies, the ASA deals with all the relevant issues identified in Schedule 2 of the SEA Regulations. In combination with the June 2017 SA, it also meets the Schedule 2 requirements to identify the measures envisaged to prevent, reduce and as fully as possible offset any significant effects on the environment of implementing the Plan, to describe the monitoring measures envisaged, and to provide a non-technical summary.
67. The principal issues that require further consideration are:
- whether reasonable alternatives for the Stage 1 and Stage 2 assessments were properly identified, so that no reasonable alternative was excluded from the assessments;
 - whether adequate reasons were given following the Stage 1 assessment for the selection of alternative strategic sites and alternative spatial strategies to be assessed at Stage 2, and for the rejection of other alternatives;
 - whether the assessment, at both Stage 1 and Stage 2, of the likely effects (including cumulative effects) of the Plan’s proposals and of the reasonable alternatives were carried out at the same level of detail, and in sufficient depth to enable a proper evaluation to be made;
 - whether the ASA, together with the June 2017 SA, helps to demonstrate that the proposals in the Plan are the most appropriate, given the reasonable alternatives.

Were reasonable alternatives properly identified?

68. Reg 12(2)(b) of the SEA Regulations makes it clear that it requires assessment of the likely significant effects of reasonable alternatives taking into account the objectives of the plan. From what is said in the Section 1 Plan about its purpose¹⁶, it does not have

¹⁵ PPG ID Ref 11-001-20140306

¹⁶ See the Introduction to the Plan, in particular para 1.13, and section 3, Spatial Strategy.

the objective of providing an overarching strategy to govern the distribution of all development across the North Essex area. Consistent with this is the fact that the shared Section 1 Plan has not been prepared as a joint development plan document under section 28 of the 2004 Act, as one would expect if it were intended to have the role of a joint spatial strategy.

69. The limited role of the Section 1 Plan is explained further in paragraphs 3.1-3.2 of the reasoned justification to policy SP2 (Spatial Strategy for North Essex):
- New homes, jobs, retail and leisure facilities serviced by new and upgraded infrastructure will be accommodated as part of existing settlements according to their scale, sustainability and role, and by the creation of strategic scale new settlements. ... For the majority of settlements these issues are addressed in the second part of the Local Plan dealing with each authority's area.
70. Against this background, in my view it is legitimate for the ASA to confine itself to assessing reasonable options for providing the amount of development which the Section 1 Plan expects the GCs to deliver in the plan period. Policy SP2 makes it clear that this is at least 7,500 dwellings, together with employment development and necessary infrastructure and facilities. That is the relevant objective which the Plan sets for itself. The Plan does not seek to provide, or to set out a strategy for the provision of, all the development needed across the North Essex area. Apart from the GC development proposed in the Plan itself, those tasks are left to the Section 2 plans.
71. Similarly, it is legitimate for the ASA to identify, as reasonable options for the Stage 1 assessment, only strategic sites capable of delivering at least 2,000 dwellings. The relevant Section 1 Plan objective in this context is to identify key strategic growth locations. It is not to identify every possible location for development across North Essex. Given that the largest of the sites proposed for allocation in the Section 2 plans would comprise around 1,700 dwellings, the decision to set a 2,000-dwelling capacity as the cut-off point between strategic and other sites was in my view a reasonable planning judgment, appropriately reflecting the respective roles of the Section 1 and Section 2 plans.
72. 23 alternative strategic sites (including the three GC sites in the Plan) were assessed during the Stage 1 assessment, and most of them were assessed at a range of different sizes. They made up an impressively comprehensive list, and I find no evidence that any strategic site that could have been a reasonable alternative was excluded from it.
73. I consider whether or not reasonable alternatives for the Stage 2 assessment were properly identified as part of the next issue.

Were adequate reasons given for the selection of alternative strategic sites and alternative spatial strategies to be assessed at Stage 2, and for the rejection of other alternatives?

74. Appendix 6 to the ASA, which was prepared by the NEAs, sets out how the reasonable spatial strategy alternatives for the Stage 2 assessment were identified, giving reasons for taking forward or discounting the alternative strategic sites assessed at Stage 1. It also describes what each of the spatial strategy alternatives would provide.

75. Over half of the **alternative strategic sites** assessed at Stage 1 were not taken forward into the spatial strategy options assessed at Stage 2, for reasons that are set out in ASA Appendix 6, Table 2. The reasons given in the table make no explicit reference to the Stage 1 ASA. This may reflect the fact that the outcome of the Stage 1c assessment does not show any of the alternative sites to be clearly preferable to the others. Against many of the objectives, all the sites are deemed to have the same or very similar impacts, and for the objectives against which they differ, there is little overall distinction between them when all their positive and negative impacts are taken into account.
76. Instead, broader planning reasons are given for not taking forward the discounted sites from Stage 1. They are summarised in Appendix 6 as follows:
- The main reasons for sites being discounted at this stage relate to either a lack of evidence to suggest there are reasonably deliverable proposals being advanced through the plan-making process at this time, or a lack of evidence to demonstrate that they are reasonable options in practical planning terms. Some sites have been discounted because they overlap or form part of a larger site that is being carried forward into Stage 2 or, following responses to the engagement with site promoters, it has been decided to merge certain sites together.
77. For each of the discounted sites, Table 2 then sets out the NEAs' reasons for not taking it forward into Stage 2. These include concerns about highway capacity and availability of infrastructure and services, impact on landscape character, relationship to existing settlements, and deliverability. It may be that others would have made different planning judgments on some of these points, but nothing I have heard or read indicates that any of the judgments made by the NEAs was unreasonable or irrational. I therefore consider that Table 2 provides adequate reasons for not taking forward the discounted sites.
78. The NEAs' selection of **alternative spatial strategies** to be assessed at Stage 2 was informed by a series of seven principles which they devised in the light of discussions with stakeholders and of my comments in IED/011. As the NEAs correctly note, attempting to assess every possible combination of every site taken forward into Stage 2 would be an unmanageable task. Devising principles to inform the selection of alternative spatial strategies is, therefore, a reasonable way to proceed, providing of course that the principles themselves are sound.
79. Five of the seven principles are that the alternative strategies should be coherent and logical, and reasonable, that they should test the alternative spatial approaches suggested by me in IED/011, that they should deliver social infrastructure, and that any strategic site included in them should deliver a minimum of 2,000 dwellings in the plan period. In my view, and taking into account my comments above on the reasonableness of the 2,000-dwelling threshold for alternative strategic sites, these principles are sound ones.
80. Principle 1 is entitled "Meet the residual housing need within the plan period". Residual housing need is the gap between the Plan's overall housing requirement for North Essex (43,720 dwellings) and the number of dwellings completed, committed, and planned for in the NEAs' Section 2 Plans. Self-evidently, it is a sound principle that this need should be met.

81. When the Plan was submitted in 2017, residual housing need across North Essex was around 4,700 dwellings. The 7,500 dwellings proposed at the GCs would therefore mean that housing supply over the Plan period would exceed the requirement by about 2,800 dwellings, or around 6% of the overall requirement.
82. By the time the ASA was published in July 2019, residual housing need had been reduced to around 2,000 dwellings¹⁷, meaning that the 7,500 dwellings proposed at the GCs would generate a surplus in supply of about 5,500, or around 13% above the overall requirement.
83. Despite this, the NEAs still believe it is right to test spatial strategy alternatives with the potential to deliver 7,500 dwellings in the remainder of the Plan period to 2033. In Appendix 6, they justify this by saying that delivery of 7,500 dwellings on strategic sites would provide “a healthy level of over-allocation”, thereby ensuring that the Plan’s housing requirement would be met even if some of the sites allocated in the Section 2 plans fail to come forward.
84. No evidence appears to have been provided at the time to show why 7,500 dwellings, rather than some lower figure, would produce an appropriate level of over-allocation. Moreover, the latest evidence from the NEAs is that, excluding any dwellings proposed in the Section 1 Plan, there is no longer any residual housing requirement for the Plan period¹⁸. On that basis, the addition of the 7,500 dwellings sought under Principle 1 of the ASA would represent an over-allocation of around 18%, not 13% as was the case when ASA Appendix 6 was drawn up.
85. The ASA’s authors cannot be criticised for proceeding on the basis of the figures that were current at the time when it was produced. And, in my view, it is reasonable for the Plan to identify more land than may be needed to meet the NEAs’ housing requirements, to help ensure that the requirements are met in the event that some of the expected provision does not come forward. The scale of any such over-allocation is a matter of planning judgment. An over-allocation of 18% against the Plan’s overall housing requirement for the period would provide an even healthier level of reassurance than one of 13%. Consequently, I see no reason to find that the ASA is unsound in seeking alternative spatial strategies to deliver at least 7,500 dwellings over the Plan period.
86. Principle 3 is entitled “Reflect relative housing and commuting patterns in any alternative strategy”. In explaining the principle, the NEAs say that housing need is greater in the western part of North Essex (the area west of Colchester) than in the eastern part. That is generally borne out by the respective housing requirements of the three NEAs, and by the breakdown of residual housing need across the three NEAs at the time when Appendix 6 was prepared. Differences in commuting relationships¹⁹ and transport links between the areas to the west and east of Colchester also justify considering the two areas separately.

¹⁷ See ASA Appendix 6, Table 1. The reduction is apparently due mainly to grants of planning permission on unallocated sites.

¹⁸ See the NEAs’ Matter 8 Further Hearing Statement, December 2019, Table 1b. In fact the figures in the table show a small surplus of 377 dwellings.

¹⁹ See EB/018, pp9-11.

87. It is logical, therefore, that in accordance with Principle 3 alternative strategies were selected to deliver a greater proportion of housing to the west of Colchester than to the east, broadly reflecting the residual requirements which applied in July 2019.
88. Based on the NEAs' seven principles, Appendix 6 identifies 11 alternative spatial strategies for the area to the west of Colchester, and six alternative strategies for the area to the east, giving clear reasons for each. They include strategies to distribute housing growth proportionately to settlements across North Essex, alongside various combinations of the alternative strategic sites taken forward from Stage 1 of the ASA. The alternatives are sufficiently distinct from one another to enable meaningful comparisons to be made.
89. Taken as a whole, the alternative strategies represent an appropriate range of different ways of delivering the amount of development that is sought, taking appropriate account of my suggestions in IED/011, and I see no basis on which to conclude that any reasonable alternative was excluded from the assessment.

Was the assessment of the Plan's proposals and the reasonable alternatives carried out at the same level of detail?

90. Stage 1 of the ASA is scrupulously fair in considering the broad locations for the proposed GCs and the reasonable alternative strategic sites at the same level of detail. The 23 strategic sites are assessed against a common set of criteria which appropriately reflect the Plan's objectives and the full range of considerations relevant to SA, and the results are clearly presented in tabular format. The assessment shows no sign of bias in favour of or against any of the sites.
91. The same applies to the assessment of the 17 alternative spatial strategies considered at Stage 2. I find no evidence that there was a failure to assess potential cumulative effects at either stage.

Was the assessment of the Plan's proposals and the reasonable alternatives carried out in sufficient depth?

92. Stage 1 consists of two sequential steps. Stage 1a appraises the location of each of the 23 strategic sites in relation to existing key services, facilities, employment locations, transport links, and environmental assets and constraints without considering what the development itself might deliver. These spatial tests were carried out using a geographical information system.
93. Stage 1c (which replaces a previous Stage 1b) then takes into account how the accessibility of each site to the key services, facilities, employment locations and transport links identified at Stage 1a would be modified by what is likely to be provided by development coming forward on each site, at different scales. In other words, each site was assumed to provide education, community, health and retail facilities, employment space and public transport services in proportion to its size.
94. In assessing what is likely to be provided, account was taken of site-specific information drafted by the NEAs and confirmed with the site promoters and with CAUSE²⁰. The Stage 1 assessments in turn informed the assessment of the

²⁰ CAUSE are a group with an alternative Local Plan strategy, known as Metro Town.

alternative strategic sites at Stage 2. Provision of rapid transit services was excluded from the Stage 1c assessment, but was taken into account for the relevant spatial strategy alternatives at Stage 2.

95. The ASA was criticised for taking at face value the site-specific information on the forms drafted by the NEAs. But a great deal of additional work would have been required to interrogate that information, for example to ascertain whether or not each of the alternative sites is financially capable of delivering all the facilities attributed to it. Such detailed scrutiny is appropriate when assessing the soundness of a preferred option, but would have been disproportionate at this stage of the SA process. Asking the site promoters and CAUSE to confirm the information drafted by the NEAs ensured that sufficient information for Stage 1c was provided, on an equivalent basis for each site.
96. A broader criticism of the Stage 1 ASA was that its proximity-based approach is too crude, and so fails to make a proper assessment of each alternative site's accessibility to facilities and services, and of its environmental impacts. It is true that at Stage 1a more detailed assessment could have differentiated the quality of facilities and services accessible from each site, for example, the range of employment opportunities or the frequency of public transport. However, that would have made little difference to the outcome of the assessment, since no sites were excluded at Stage 1a. At Stage 1c the provision of facilities and services as part of the development of each site was more decisive in the appraisal of accessibility than proximity to existing facilities.
97. In assessing environmental impacts, however, in most cases a similar (albeit not necessarily identical) proximity-based approach to that used at Stage 1a was employed at Stage 1c. For example, effects on heritage assets are assessed based on whether 5% or more of each site lies within a certain distance of a designated heritage asset. In fact, every site assessed at Stage 1c is deemed to have a "significant negative effect with uncertainty", reflecting the fact that all of them lie within 500m of at least one designated heritage asset.
98. The ASA's approach was criticised by, among others, Historic England, who argue that the lack of detailed evidence on the likely effects of the alternative strategic sites on the historic environment has led to over-simplification and inadequate differentiation between them. They consider that a high-level Heritage Impact Assessment [HIA] of each site should have been undertaken to inform the ASA. In the absence of adequate assessment, Historic England say, there can be no confidence that the GC sites proposed in the Plan are capable of accommodating the proposed number of dwellings without adversely impacting on the historic environment.
99. Historic England also draw attention to the facts that the ASA does not identify (or fully identify) some of the designated heritage assets in and around the proposed GC sites, does not consider the effects of alternative sites on non-designated heritage assets, and uses a distance-based approach contrary to Historic England's published advice²¹.

²¹ In The Historic Environment and Site Allocations in Local Plans – Historic England Advice Note 3

100. There can be little doubt that a more detailed assessment of the likely effects of the alternative strategic sites on the historic environment would have enabled the ASA to differentiate more clearly between them. But I am not persuaded that the absence of such assessment is a fatal defect in the ASA. This is mainly because the Section 1 Plan does not make specific site allocations for the proposed GCs: instead it identifies broad locations, within which it is intended that the Strategic Growth DPDs will identify specific locations for development. In this context, it appears to me that Historic England's advice on site allocations is more applicable to the future DPDs than to the Section 1 Plan.
101. In taking a proximity-based approach to impacts on heritage assets, the ASA is consistent with the approach it takes to other environmental impacts. Were it to use more detailed evidence to assess impacts on one type of environmental asset, but not the others, this could run the risk of unbalancing the overall assessment. It is unfortunate that the ASA does not identify all the designated heritage assets potentially affected. But had it done so, it is highly unlikely that the outcome of the Stage 1 assessment would have been any different, since all the alternative sites (and indeed all the spatial strategy options assessed at Stage 2) are already deemed to have significant negative effects, with uncertainty, on heritage assets.
102. That said, I share Historic England's concern that, without a detailed Heritage Impact Assessment, there can be no certainty that any of the GCs proposed in the Plan are capable of accommodating the amount of development which the Plan attributes to them, without unacceptable adverse impacts on the historic environment. Given the size of the broad locations proposed for the GCs, I consider it is reasonable at this stage to assume for the purposes of the ASA that they are capable of doing so. But appropriate policy safeguards need to be included in the Plan in the event that, in future, evidence shows this not to be the case. This could be achieved by main modifications to the relevant Plan policies.
103. On the face of it, it appears surprising that the ASA finds only uncertain minor negative effects on air quality for some of the strategic site alternatives, and no significant effects for the majority of the spatial strategy alternatives. However, the ASA advises that without traffic modelling of each strategic site alternative, its assessment needs to be treated with a great deal of caution.
104. While I acknowledge the severe effects of air pollution on human health, I am also mindful of the need for a proportionate approach to gathering evidence for SA²². It would be disproportionate to require traffic modelling of each of the 23 strategic site alternatives, and all 17 alternative spatial strategies, when only three strategic sites are actually proposed in the Plan.
105. The ASA appropriately acknowledges the difficulties in compiling the information needed to assess impacts on air quality. Any differences it finds between the alternatives on this issue are so small as to make it highly unlikely that they affect the overall outcome of the assessment. For these reasons I consider that the ASA's approach to the issue is adequate at this stage.

²² See PPG Ref ID 11-009-20140306

106. The ASA finds no significant effects on water quality in respect of any of the strategic sites assessed, while acknowledging a degree of uncertainty given that not all scales of growth for all the sites have been covered in the Water Cycle Studies and because specific waste water infrastructure requirements will only be finalised at planning application stage. Those are reasonable findings at this stage of planning, taking into account that, with main modifications, Plan policies are capable of requiring adequate water supply and waste water treatment capacity to be provided before any dwellings are occupied.
107. At Appendix 5, paragraph 3.1173, the ASA says that the potential noise effects from Stansted airport flight-paths on future residents of the proposed West of Braintree GC are judged to be negligible. However, based on the assessment of the potential effects of operations at the adjacent Andrewsfield airfield, the Stage 1c scoring chart for the West of Braintree GC site [NEAGC1] shows an overall “uncertain minor negative effect” score against the noise nuisance criterion.
108. Taking into account all the evidence before me, including noise contour plans supplied by the airport operator, evidence on the number of flights passing over the West of Braintree site at 7,000 ft or lower, and existing and emerging Government guidance on aircraft noise, I consider that even if a finding of “negligible effect” from Stansted airport flight-paths on NEAGC1 is not within the range of reasonable planning judgment, a finding of “uncertain minor negative effect” would be. Moreover, I note that in summarising and concluding on the findings of the Stage 1c assessment on noise pollution, the ASA makes no distinction between sites with minor negative effects (uncertain or otherwise) and those with negligible effects. Therefore, it appears that even if the finding of “negligible effect” is unjustified in respect of the noise effects of Stansted flight-paths, it has not materially affected the ASA’s conclusions.
109. The ASA is justified in finding that, since the West of Braintree GC as proposed in the submitted Plan does not overlap with the Andrewsfield airfield site, development of the former would not directly lead to loss of flight operation facilities, community facilities, or historic assets forming part of the latter. The impact on Andrewsfield of the West of Braintree proposal in the former emerging Uttlesford Local Plan is not a matter for this examination.
110. Taking all the above points into account, I conclude that the assessment of the Plan’s proposals and of the reasonable alternatives was carried out in sufficient depth to enable a proper evaluation to be made.

Does the ASA help to demonstrate that the proposals in the Plan are the most appropriate, given the reasonable alternatives?

111. From the ASA, LUC conclude that the spatial strategies that rely solely on proportionate growth at existing settlements are the poorest performing, but that for the others, the differences are much more finely balanced. They say that 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 strategy in the submitted Section 1 Plan, according to LUC, is that it provides clear direction to accommodate strategic development over many decades to come, and therefore more certainty in terms of coherence and investment. However, some of the alternatives offer opportunities to deliver similar benefits.

112. In my view it is reasonable to draw those conclusions from the ASA.
113. In Appendix 8 to the ASA the NEAs set out their reasons for proceeding with the spatial strategy in the submitted Plan, that is to say, the three proposed GCs, rather than any of the alternatives. They say that
- a number of sites and spatial strategy options perform similarly against the sustainability objectives, but nothing arises from the [ASA] to suggest that the spatial strategy in the submitted Plan is wrong or that there are any obviously stronger-performing alternatives...
114. To the west of Colchester, the NEAs say, the proposed West of Braintree and Colchester / Braintree Borders GCs have the genuine advantages of providing for long-term strategic growth. West of Braintree has direct access to the A120 and the proposed rapid transit system [RTS], and is well-located to Stansted airport which is a centre of employment and provides opportunities for new business growth. Colchester / Braintree Borders is close to Marks Tey station which has regular services to London, Colchester and beyond, is well located at the intersection of the A12 and A120 with good opportunities for integration with other transport modes, including the RTS, and has opportunities for sustainable travel into Colchester which is a regional centre for employment and has major health, shopping and cultural facilities.
115. To the east of Colchester, the NEAs consider that the Tendring / Colchester Borders GC offers benefits to Colchester and Tendring in terms of housing delivery, improved accessibility through rapid transit and the A120/A133 link road, and unlocking the economic potential for expansion of the University of Essex and the Knowledge Gateway.
116. It is clear from this that, apart from any specific locational advantages, many of the benefits which the NEAs ascribe to the proposed GCs depend on the delivery of strategic transport infrastructure, for example the RTS and the A120/A133 link road. Similarly, the advantages which the proposed GCs offer in providing for long-term strategic growth would only be realised if the GCs are actually capable of being delivered over the long term. Accordingly, deliverability is critical to the justification of the Plan's spatial strategy, including the proposed GCs. I consider the issue of deliverability in the next section.

Deliverability of the proposed GCs

Infrastructure needed to support the proposed GCs

Trunk road improvements

117. In IED/011 I said that “greater certainty over the funding and alignment of the A120 dualling scheme and the feasibility of realigning the widened A12 at Marks Tey is necessary to demonstrate that the GC proposals are deliverable in full”.
118. Since June 2018 trunk road schemes in North Essex have moved forward as follows:
- A preferred route for the A120 dualling scheme has been established, and development work on the scheme is included in the Department for Transport's Roads Infrastructure Strategy 2 [RIS2] for 2020-25.

- This means that the scheme is in the “pipeline” for RIS3 (2025-30), but currently there is no commitment to the construction of the scheme. The RIS2 document says

New proposals need to consider a wide range of impacts: not only what can be promised with certainty, but also where a proposal has the potential to support wider and more ambitious local plans for development. ... We also expect that where a proposal enables significant development nearby, the developer will contribute to the cost of delivering the scheme. There is also potential for funding from other sources to support a developing proposal. Funding contributions will make a significant difference to the likelihood of government choosing to bring forward a proposal to the next stage, and ultimately to commit it as part of the next RIS.

- Widening of the A12 between junctions 19 and 25 is included in the RIS2 programme.
 - The Spring 2020 Budget statement announced a £272M grant from the Housing Infrastructure Fund. According to the Treasury’s East of England Factsheet, this funding “will be used to realign the eastern section of the A12 between Junctions 24 and 25 in order to unlock up to 20,931 homes as part of the North Essex Garden Community”. In late 2019 Highways England consulted on alternative options for the realignment, the aim of which is to overcome the severance effect on the Colchester / Braintree Borders GC of the A12’s existing alignment.
119. The publication of RIS2 and the Spring 2020 budget mean that it is now reasonable to assume that the A12 widening scheme will go ahead, including the realignment between junctions 24 and 25, with a good prospect of completion by Highways England’s expected date of 2028.
120. On the other hand, notwithstanding its inclusion in the RIS3 pipeline, there is still no certainty on whether or not the A120 dualling scheme will go ahead. However, the fact that it would support development at two of the three proposed GCs, and that contributions towards it are expected from the GC developers, are strong factors in its favour. If funding for the scheme is confirmed, there is a good prospect that it will also be completed by 2028.
121. The implications for the two GCs to the west of Colchester are as follows.
122. Both Highways England and ECC consider that completion of the A120 dualling scheme is necessary to support the full build-out of 10,000 dwellings at the West of Braintree GC²³. However, partial build-out in advance of the A120 scheme could be achieved without severe detriment to the road network, when account is taken of other committed road improvements, including those to M11 junction 8, the A131 between Braintree and Chelmsford, and the A120 / B1018 junction at Braintree.

²³ While submitted Plan policies SP7 & SP10 propose an overall total of between 7,000 and 10,000 dwellings, the NEAs’ viability appraisal assumes a total of 10,000.

123. At the Matter 6 hearing session, the NEAs' representative indicated that at least 2,000 dwellings could come forward at the West of Braintree GC in advance of the A120 scheme, but that the scheme would become necessary at some point between the completion of 2,000 and 10,000 dwellings. I do not read ECC's application to the National Productivity Investment Fund for funding for road improvements at Braintree as contradicting that view.
124. Promoters of the West of Braintree GC contend on the basis of census data that only a small proportion of journey-to-work trips to and from the West of Braintree GC would use the A120 to the east of Braintree, and consequently that the feasibility and deliverability of the GC does not rely on delivery of the A120 dualling scheme. However, in the absence of detailed modelling to support that conclusion, I give more weight to the views of Highways England and the local highway authority.
125. Taking into account likely future improvements to M11 junction 8, I see no reason to consider that development at the proposed West of Braintree GC would be constrained by capacity issues on the A120 to the west.
126. Turning to the Colchester / Braintree Borders GC, there is no substantial evidence to contradict the NEAs' position that completion of both the A12 widening scheme, including one of the alternative route options between junctions 24 and 25, and of the A120 dualling scheme are needed to support the full build-out of 21,000 dwellings at the GC²⁴.
127. Consequently, notwithstanding the decision to proceed with the A12 widening as part of RIS2, full build-out of the Colchester / Braintree Borders GC is dependent on confirmation of funding for the A120 scheme.
128. The promoters of the Colchester / Braintree Borders GC say that their technical evidence demonstrates that it would be possible to build up to about 2,500 dwellings without the need for either the A12 widening or the A120 dualling scheme. However, a 2,500-dwelling development at Colchester / Braintree Borders would be very different from the GC proposal in the Plan. If funding for the A120 scheme were to be confirmed, it might in principle be appropriate to allow some development to proceed before the A12 and A120 schemes are complete. But for the reasons given in paragraphs 28 and 116 above, it would be entirely inappropriate to find that the proposed GC is deliverable if the available infrastructure would allow only a small fraction of it to be built.

A120-A133 link road

129. ECC have secured £65 million [M] from the Housing Infrastructure Fund [HIF] to build a dual-carriageway link road between the A120 and A133 to the east of Colchester²⁵. The cost breakdown provided by ECC [in EXD/082] indicates that £65M would cover all the costs of the road and would include a contingency allowance of around 21%. Other participants provided alternative costings, but I have no reason to consider that the figures prepared by the local highway authority, ECC, which were subject to scrutiny through the HIF bid process, are unreasonable. Having said that, a

²⁴ Full build-out at Colchester / Braintree Borders is now considered by the NEAs to comprise 21,000 dwellings, and viability appraisal has been carried out on that basis, notwithstanding that submitted Plan policies SP7 & SP9 propose a total of between 15,000 and 24,000 dwellings.

²⁵ The HIF funding also includes £35M for Route 1 of the RTS: see below.

contingency allowance of 21% appears low at this stage of planning, especially when compared with the 44% contingency allowance which ECC considered appropriate for the RTS (see below).

130. ECC undertook consultation on route options in Autumn 2019. Each route option is located towards the eastern edge of the broad location for the proposed Tendring / Colchester Borders GC. They vary in the extent to which they impinge on the potential development areas within the broad location. While at least one of the options appears likely to have a significant severance effect within the broad location, the range of options available means that there is the opportunity to minimise any such effect. However, it will also be important to ensure that there is adequate access, including for pedestrians and cyclists, from the proposed GC across the link road into the countryside to the east. It is unclear to what extent that requirement has been taken into account in the costings.
131. The A12 widening scheme, discussed above, would provide capacity for the additional traffic on the A12 resulting from the provision of the link road. Funding for complementary local road improvements, including to the Greenstead roundabout in Colchester, would be sought from the developers of the Tendring / Colchester Borders GC. An allowance for that funding is made in the NEAs' viability assessment. The NEAs consider that, in combination, all the proposed road improvements would provide adequate mitigation for the impacts of traffic from the GC. I concur with that view. That is not to say, however, that increased congestion will not occur when all sources of traffic growth, including from the proposed GC, are taken into account.

Rapid transit system

132. Plan policy SP7 requires the new communities to be planned around a “step change” in integrated and sustainable transport systems. To fulfil that requirement, it is necessary for it to be shown that high-quality public transport services linking each of the proposed GCs to key destinations are capable of being provided. Without that, the GCs would not comply with NPPF's advice that the transport system needs to be balanced in favour of sustainable transport modes, giving people a real choice over how they travel²⁶. Moreover, in order to meet that advice and the Plan's policy aspirations, the service must be available from early on in the life of the GCs, both to provide transport for residents without a car, and to influence the travel choices of residents with cars.
133. The NEAs' intention is that the RTS will be the primary public transport service for the proposed GCs. Since June 2018 planning for the RTS has continued, and in July 2019 ECC and their consultants published their report *Rapid Transit System For North Essex – From vision to plan* [EB/079] [hereafter, “Vision to Plan”]. The report firms up a number of issues that had been left open in the previous RTS report²⁷ which I considered in 2018:
- For the foreseeable future, the RTS will use high-quality buses. The options of using trams or guided buses have been discarded. The possibility of trackless trams (a technology currently on trial in China) being used at an undefined point in the future is contemplated, but the Plan does not rely on this.

²⁶ 2012 NPPF, para 29

²⁷ *The North Essex Rapid Transit Study* [EB/066]

- Four RTS routes have been devised, respectively linking the Tendring / Colchester Borders GC to Colchester town centre and the Park and Ride site north of Colchester (Route 1); linking the Colchester / Braintree Borders GC to Colchester town centre and providing connections to Route 1 (Route 2); linking the West of Braintree GC eastwards to Braintree and westwards to Stansted airport (Route 3); and linking Colchester / Braintree Borders GC to Braintree, thereby joining up Routes 2 & 3 (Route 4).
 - Options for the four routes have been developed, identifying alternative alignments for, and the degree of segregation of, each route section.
 - Capital costs and passenger and revenue forecasts for each route have been developed, and proposed timescales for the introduction of each route have been established.
 - Capital funding for RTS Route 1 has been secured from the Housing Infrastructure Fund.
134. Notwithstanding concerns expressed about the feasibility of some of the proposed alignments and their effects (including on other road users, on-street parking and residential amenity), I consider that the route section options have been worked up in sufficient detail to demonstrate that a bus-based RTS with priority over other traffic for much of its length could, in principle, be provided along the routes proposed in Vision to Plan. However, important questions remain about three central aspects of the RTS proposals, which I consider in turn below.
135. **Capital cost estimates** were developed for each RTS route for both “lower-investment” and “higher-investment” scenarios, using standard assumptions based on section lengths and degree of segregation from other traffic. For Routes 1, 2 & 3, Table 5-1 in Vision to Plan shows that the lower-investment scenario produces RTS end-to-end journey times between 26% and 37% longer than journey times in the higher-investment scenario. Section 5.5 of Vision to Plan comments that the greater capital investment in the higher-investment scenario would deliver higher patronage, higher revenue, lower operating costs, and higher mode shares for RTS both on and off the GCs, compared with the lower-investment option.
136. I agree with that analysis. Even in the higher-investment scenario, it is by no means clear that the forecast end-to-end journey times for the RTS routes would offer any significant advantage over car journey times in current peak traffic conditions, while in current off-peak conditions the car would almost certainly be quicker for many journeys. In the lower-investment scenario, it is likely that the RTS would be considerably slower than the car for most if not all journeys, at all times of day. In this context, I consider that only in the higher-investment scenario would the RTS have any prospect of meeting Plan policy SP5’s aspiration for sustainable modes of transport that can compete effectively with private vehicles, and of giving people a real choice over how they travel, as the NPPF advises.
137. Vision to Plan gives higher- and lower-bound capital costs for the higher-investment scenario, with the lower bound representing the base cost and the higher bound representing the base cost plus a 44% contingency allowance. When benchmarking the capital costs of the RTS routes against two similar schemes elsewhere, Vision to Plan used the midpoint between the lower and higher bounds. The corrected table in the NEAs’ post-hearing note [EXD/082] indicates that, for the higher-investment scenario, those midpoint costs are comparable with the £4.6M/km out-turn costs for the Bristol Metrobus scheme, but significantly lower than the £5.5M/km out-turn costs for the Leigh-Salford busway.

138. This benchmarking exercise does not present the full picture, however, because Vision to Plan's out-turn costs for the comparator schemes do not allow for inflation since those schemes were completed, meaning that they do not provide a like-for-like comparison at current cost levels. Credible figures based on an assumed civil engineering inflation figure of 3.5% per annum produce inflation-adjusted out-turn costs of £5.3M/km for Bristol and £6.6M/km for Leigh-Salford, both substantially higher than the mid-point costs of the North Essex higher-investment scenario.
139. In hearing statements reference was made by way of comparison to other RTS schemes, including Fastrack in Kent, Fastway in Sussex and the Belfast Glider system. In some cases these indicate higher per-km costs than for the comparator schemes in Vision to Plan, and other cases lower costs. Taken as whole, these references indicate that the inflation-adjusted out-turn costs of the comparator schemes used in Vision to Plan provide a reasonable sense-check for the RTS cost estimates.
140. Moreover, the costs given for the RTS schemes do not include the cost of structures such as a bridge over the railway at the Colchester / Braintree Borders GC, or the cost of any necessary land acquisition.
141. All these points lead me to the view that the capital costs given for the RTS in Vision to Plan need to be treated with caution. At the very least, the upper-bound costs for the higher-investment scenario should be used in carrying out viability assessment. Those upper-bound costs, rather than the mid-point costs, represent a realistic comparison with the inflation-adjusted costs of the comparator schemes used in Vision to Plan²⁸. Even then, it may well be that for Routes 2 and 3 they underestimate the likely capital cost of the RTS, given that they exclude the costs of structures and land acquisition, and I have no clear evidence on what proportions of the comparator scheme out-turn costs relate to structures and land acquisition.
142. Somewhat different considerations apply to Route 1, since the capital costs for that route were subject to further refinement during the preparation of ECC's HIF bid. As a result, I have a reasonable degree of confidence that the upper bound of the higher-investment scenario is likely to reflect the full capital cost of Route 1.
143. As regards timing of provision, Vision to Plan envisages that the RTS routes will be developed on a phased basis. That is a realistic approach, given the scale of the project and the fact that the timing of expected development varies at each GC.
144. However, although Table 5-6 in Vision to Plan indicates that RTS Route 4 will be developed between 2034 and 2051, no capital funding for Route 4 is identified in the NEAs' viability appraisals, and there is no specific evidence that it is available from other sources. Consequently, it has not been shown that Route 4 is deliverable.
145. Commercial viability is considered in sections 5.2 to 5.4 of Vision to Plan. Section 5.3 makes generally reasonable assumptions about operating costs, including service frequencies and leasing costs for high-quality vehicles to operate the services.
146. Section 5.2 derives revenue estimates for each route, based on demand forecasts which in turn are based on the outputs from a multi-modal transport model. It is likely that a more refined model using more up-to-date survey data would have produced

²⁸ Per-km upper-bound costs for the higher-investment scenario are given in EXD/082, Table 2.

more accurate results. Nonetheless, I consider that the method used has produced demand forecasts that are adequate for the purposes of demonstrating commercial viability at this stage of planning for the RTS.

147. However, I have concerns about the assumptions on the level of investment in the RTS which inform the revenue estimates. As the NEAs' response to my clarification question 3 in EXD/075 makes clear, in section 5.2 the "higher-investment" revenue forecasts for 2033 are based on an "aspirational" level of capital spending: only the "lower-investment" forecasts reflect the expected level of investment by 2033.
148. The NEAs go on to say in EXD/075 that "the extent of investment in Routes 1, 2 and 3 is likely to lie between those two levels". But no clear evidence is given to support that statement. It would be imprudent to rely, for example, on the prospect of Government grant funding without specific evidence that it is likely to be forthcoming.
149. Of greater concern is that the revenue forecasts for Route 3 are based on the assumption that a significant proportion of demand will come from proposed developments in the former emerging Uttlesford Local Plan: the Easton Park GC and the part of West of Braintree GC in Uttlesford district²⁹. For the reasons given in paragraphs 18-20 above, this is not a reliable assumption. As a result, I can have no confidence that Route 3 is deliverable.
150. In section 5.4.1, Vision to Plan makes it clear that an element of "pump-priming" should be assumed to be necessary, both to support the RTS services when they are first introduced, and to subsidise traditional bus services at the very early stage of GC development. Although a modest annual allowance is made for "investment in early phase public transport" in the NEAs' viability appraisals for each of the GCs, I have seen no clear evidence that it is sufficient to meet those purposes.
151. Drawing all these points together, I find that there is sufficient evidence to demonstrate that construction of the RTS is physically feasible. However, it has not been demonstrated that Routes 3 and 4 are deliverable in financial terms. It may well be that even the upper-bound estimates in Vision to Plan's higher-investment scenario underestimate the likely capital costs of Routes 2, 3 and 4, and there is some uncertainty over the revenue forecasts for Routes 1 and 2. There is no clear evidence to show that the NEAs' viability appraisals make adequate provision for "pump-priming".
152. I consider the consequences of these findings in the section on viability below.

Marks Tey station

153. The NEAs have investigated the possibility of relocating Marks Tey railway station to a more central position in the proposed Colchester / Braintree Borders GC. However, Network Rail advised them in July 2019 that, in view of the very high costs that would be involved in relocating the station, enhanced access and improvements to the existing station should be explored and developed. An appropriate allowance for this purpose has been made in the viability appraisal for the GC.

²⁹ See EXD/089.

Water supply and waste water infrastructure

154. The North Essex Integrated Water Management Strategy follows a staged approach to planning for water supply and waste water treatment for the proposed GCs. The existing Stage 1 identifies a series of options, which would then be refined in Stage 2 to determine specific solutions for each GC. This is a conventional approach and I see no reason to consider that it is inappropriate here.
155. In a statement of common ground, the NEAs, Anglian Water and the Environment Agency agree that modifications to Plan policies are needed to require the necessary water supply and waste water treatment capacity to be provided before any dwellings are occupied at the proposed GCs. However, in order to show that the proposed GCs are deliverable, it is also necessary to establish whether or not that provision is capable of being funded.
156. There are statutory responsibilities on the water supply companies (Anglian Water and Affinity Water) to plan to meet future growth in demand, and on Anglian Water to provide waste water treatment capacity. Allocations are made in the NEAs' viability assessment to fund connecting infrastructure at each of the proposed GCs. However, those allocations are inevitably subject to a degree of uncertainty given that specific solutions have yet to be identified. I consider the consequences of this in the section on viability below.

Deliverability of the proposed GCs

Housing build-out rates

157. In IED/011 I reviewed the evidence then before me on housing build-out rates and concluded that, while it is not impossible that one or more of the GCs could deliver at rates of around 300 dwellings per annum [dpa], it would be more prudent to plan, and carry out viability appraisal, on the basis of an annual average of 250dpa.
158. The NEAs subsequently prepared the topic paper Build out rates in the Garden Communities, July 2019 [EB/082], which concludes that adopting that 250dpa figure would be overly cautious based on the evidence available and the context and attributes of the Garden Communities themselves. In the NEAs' view, what they regard as an achievable, albeit conservative, build-out rate of 300dpa is appropriate for the purposes of modelling, although they consider that this figure could be substantially increased over time.
159. From the literature review of other reports on build-out rates, EB/082 identifies a number of factors which promote higher delivery rates. These include the size of the development (bigger sites tend to achieve higher delivery rates), the ability to diversify the type, size and tenure of the dwellings provided, and the strength of the local housing market. I agree that all these factors would tend to promote higher delivery rates at the proposed GCs.
160. An important section of EB/082 focusses on the NLP report Start to Finish (November 2016), which I considered in IED/011. Start to Finish is the most comprehensive study of actual, achieved build-out rates available to me. It found that the 10 greenfield sites providing more than 2,000 dwellings that were studied delivered around 170dpa on average, with substantial variation around that mean figure.

161. EB/082 points out that the delivery periods for most of the sites studied in Start to Finish include the period of deep economic recession which began in 2007/08. The recession led to a steep decline in housebuilding nationally from which it took several years for significant recovery to begin. It is reasonable to infer that the average build-out rates identified in Start to Finish might have been affected by these events, which went well beyond the normal fluctuations of the business cycle.
162. However, NLP have carried out further analysis of build-out rates excluding the five years from 2008 to 2013, thereby effectively excluding the effects of the recession. (It is reasonable to regard fluctuations outside this exceptional period as typical of the normal business cycle.) NLP's analysis showed that the average build-out rate on the same 10 greenfield sites of 2,000 dwellings or more was 184dpa. That is still well below the 250dpa rate which I recommended in IED/011 as a prudent basis for planning, let alone the 300dpa rate which the NEAs now regard as a conservative figure.
163. NLP also analysed the pre-recession period. Only two greenfield sites of more than 2,000 dwellings were available to inform that analysis: too small a sample from which to draw any reliable conclusions. For all sites of 500 dwellings or more, however, the average pre-recession delivery rate was 116dpa, compared with 109dpa for the whole period including the recession and post-recession.
164. NLP's further analysis, therefore, demonstrates that while the recession and its aftermath had some effect on build-out rates, the effect was not that great. Average build-out rates on comparable sites increase only a little if the effects of the recession are excluded.
165. The Homes & Communities Agency [HCA] Notes on Build out rates from Strategic Sites, which is also referenced in EB/082, claims that "forecast trajectories for the very largest sites (say 4,000 units+) may be in the range of 300-500[dpa]". However, the evidential basis for this claim is unclear, despite the fact that the report is based on actual build-out rates. Only one of the four developments of 4,000 dwellings or more for which average figures are given achieved an average delivery rate of more than 300dpa (in fact, 321dpa), with the other three ranging between 205dpa and 281dpa.
166. The HCA report also gives average actual build-out figures for eight developments of between 2,000 and 4,000 dwellings. According to those figures, only one of the eight achieved an average delivery rate of more than 300dpa. The next highest figure was 234dpa, while at the other end of the scale, four delivered less than 100dpa on average. Taking all this into account, I consider that the findings of the HCA report do not contradict those of the more recent NLP analysis, nor do they support an average delivery rate of 300dpa at the proposed GCs.
167. EB/082 also includes a table taken from the Letwin Independent Review of Build Out (June / October 2018), showing average build-out rates on 15 sites ranging between 572 and 86 dpa. However, unlike Start to Finish, these averages combine actual and forecast delivery rates. Examination of the detailed annual delivery figures for 12 of those 15 sites³⁰ shows that there are more than twice as many years for which forecast rates are given, than years for which actual build-out rates are given.

³⁰ The Letwin Independent Review of Build Out Rates, Draft Analysis (June 2018), pp AX38-AX49. Letwin does not provide annual delivery figures for the other three sites.

168. Three of those 12 sites are high-density brownfield developments in London, very different in character from the proposed GCs. On the other nine, there were more than twice as many years in which actual delivery levels fell below 250dpa, than years in which they exceeded 300dpa. Even after allowing for some inaccuracy in the Letwin figures, for example at the Great Kneighton site, they show that, for the relevant sites studied, build-out rates of 250dpa or less have been achieved considerably less often than rates of 300dpa or more.
169. EB/082 suggests that the three sites on the Bicester ring road which were assessed by Letwin should be viewed as phases of a single, larger development for the purposes of calculating build-out rates. But only two of those sites are close to one another: the other is on the opposite side of the town. Moreover, I have no clear evidence on the extent to which the three sites have delivered housing simultaneously, and the only one for which actual delivery figures are given by Letwin has achieved an average rate of only about 140dpa.
170. The two adjacent sites in Colchester referenced in EB/082 have delivered some 260-270dpa, but over a period of only two years. Examples of other developments given by other participants, including at Chelmsford, Aylesbury and Didcot, provide no clear evidence that average delivery rates of more than 250dpa can be sustained over a long period. Nor is there any robust evidence before me to demonstrate that the use of modern methods of construction significantly boosts delivery rates.
171. EB/082 draws on examples of build-out rates at other strategic-scale developments in Milton Keynes, at Otterpool Park in Kent and at Harlow and Gilston Garden Town. Most of these are expected to achieve build-out rates of 300dpa or more, and in some cases considerably more. However, almost all those figures are future projections rather than actual build-out rates. The Milton Keynes projections, which were endorsed by the Local Plan Inspector, extend only over the next 10 years, in contrast to the much longer timescales of the proposed GCs.
172. This is not to suggest that projected delivery figures on sites elsewhere should be disregarded when assessing the likely rate of delivery at the proposed GCs. But in my view they carry considerably less weight than evidence of actual achieved delivery, when considering the GCs' delivery prospects and their financial viability. It would be unwise to embark on these very long-term projects on the basis of delivery assumptions that have not been shown to be achievable in practice.
173. EB/082 draws attention to the significantly higher average housing delivery rate in Milton Keynes achieved by the Development Corporation [MKDC] from 1971 to 1992, compared with the average rate since its dissolution. But, given the very different social, economic and institutional arrangements prevailing at that time, it would be misleading to assume that the past achievements of MKDC and other development corporations would be replicated at the proposed GCs. Nor is there yet any clear evidence that the Ebbsfleet Development Corporation, established by the government in 2015, will be successful in achieving the high delivery rates projected for it.
174. In conclusion, evidence shows that some large housing sites are capable of delivering 300 dwellings or more in a single year, and in some cases for a number of years in succession. But I find that there is no evidence to support the view that the proposed GC sites are capable of delivering at that annual level consistently, throughout the normal peaks and troughs of the business cycle, over the decades that it will take to build them. Over that timescale, the best evidence on likely delivery rates at the

proposed GCs remains Start to Finish's annual average figure (adjusted to exclude the effects of the 2007/08 recession) of under 200dpa for greenfield sites of more than 2,000 dwellings.

175. It is appropriate to adjust that figure upwards to 250dpa to take account of the fact that the GCs meet most of the factors identified in EB/082 which promote higher delivery rates. But it would be imprudent to base the Plan's housing trajectory, or the viability appraisal of the proposed GCs, on any higher figure.

Lead-in times

176. None of the evidence I have seen or heard since June 2018 leads me to alter my view, set out with reasons in IED/011, that, in general terms, it is reasonable to assume that the planning approval process would allow housing delivery at any GC to start within four or five years from the adoption date of the plan (or plan revision) which establishes the GC in principle. The NEAs' latest housing trajectory [EXD/070], which shows housing delivery at the Tendring / Colchester Borders and West of Braintree GCs beginning in 2024, is broadly consistent with this finding, albeit that the trajectory will need to be kept under review.
177. However, I advised in IED/011 that the four-to five-year timescale could alter depending on how long it takes to put the necessary infrastructure in place. In this context the NEAs' trajectory now anticipates that delivery of housing at the Colchester / Braintree Borders GC will start in 2029, after completion of the A12 widening and A120 dualling schemes (assuming the latter is included in RIS3).

Employment provision

178. Policy SP7(vi) requires that each proposed GC should provide and promote opportunities for employment within each new community and within sustainable commuting distance of it. In that context I observed in IED/011 that it is surprising that the GC policies contain no specific figures for the amount of employment land or floorspace to be provided at each of the GCs. I acknowledged the difficulty of predicting requirements for employment land and floorspace at this early stage of planning, but advised that indicative requirement figures could be set which could then be reviewed each time the Plan itself is reviewed.
179. In response, the NEAs commissioned Cebr to produce the report Employment provision for the North Essex Garden Communities [EB/081]. It sets out estimates of employment floorspace and employment land requirements for each GC. At my request, Cebr subsequently provided adjusted requirement figures for the West of Braintree GC that are commensurate with the GC land within Braintree district only³¹.
180. EB/081 forecasts employment numbers at each GC for three future dates – 2033, 2050 and at completion of construction, estimates the breakdown of those numbers by employment sector, and then follows HCA guidance on employment densities to convert them into floorspace and finally employment land requirements. In principle this is a sound methodology, as long as the forecasts of employment numbers and the sectoral breakdown estimates are themselves sound.

³¹ For the reasons given in paras 18 to 20 above

181. The employment number forecasts are based on two scenarios, which produce almost identical results. In the “reference case” scenario, total employment at each GC is assumed to be exactly equal to the number of completed dwellings at each forecast date. This is a highly ambitious assumption, which exceeds both the requirements of policy SP7(ii) and the more demanding goal of the NEGC Charter’s Principle 3 to provide access to one job per household within each new GC or within a short distance by public transport.
182. The “investment case” scenario draws on work in an earlier report by Cebr, Economic Vision and Strategy for the North Essex Sub-Region (August 2018), commissioned by NEGC Ltd. In this scenario, the employment-to- population ratio in North Essex as a whole (including at each GC) gradually increases so that by 2036 it converges on the ratio for a set of comparator areas, and remains constant thereafter.
183. The comparator areas are all located in what Cebr describe as an “arc of prosperity” to the north, west and south-west of London. Both employment-to-population ratio and GVA per capita in North Essex are currently well below the average for the comparator areas. Cebr’s investment case scenario therefore essentially depends on the success of an ambitious economic development programme to raise North Essex’s economic performance to match that of the comparator areas.
184. Cebr’s projected employment figures for the GCs are similar to, and indeed in some cases somewhat lower than, those in the upper end of the range estimated in a report by Cambridge Econometrics and SQW: North Essex Garden Communities Employment & Demographic Studies [EB/009], published in April 2017. Having said that, EB/009’s upper-end estimates are based on similarly ambitious assumptions as regards economic development, and I was shown no evidence of any development programmes that have achieved that degree of improvement in economic performance.
185. Economic forecasting is notoriously difficult, and especially so over the long development timescales of the proposed GCs. The ambitions for economic growth that inform the Cebr forecasts may or may not be realised in practice. But in my view it would be wrong, particularly at this early planning stage, to constrain the potential for achieving that level of growth by limiting the availability of employment land. Consequently, I consider that it would be appropriate to use the figures in EB/081³² as the basis for setting employment land requirements for the GCs in the Plan, with the proviso that the requirements for all the GCs are reviewed each time the Plan and/or the Strategic Growth DPDs are reviewed, to ensure that they continue to reflect up-to-date evidence.
186. In reaching that view I have had regard to the representations about the way in which Cebr arrived at their sectoral breakdown of the employment numbers for each GC. While in most cases the sectoral shares at the GCs reflect those for the comparator areas, there are a few apparent anomalies, most notably the 30% share for information and communication activities forecast for the Tendring / Colchester Borders GC. But any such anomalies have only a small effect on the calculation of the overall employment land requirements for each GC.

³² Subject to the West of Braintree adjustment discussed above.

Delivery mechanisms

187. The NEAs' intention is that the Plan should be "delivery model-blind": that is to say, it should make no specific requirements about whether development of the proposed GCs is led by the public sector, the private sector, or a partnership between the two. In principle that is a sound position which allows for appropriate flexibility at this early stage of planning the GCs.
188. In IED/011 I advised that submitted Plan policy SP7 should be modified to remove the reference to "sharing risk and reward". That does not mean that I consider it would be unlawful for the public and private sectors voluntarily to enter into an arrangement in which they would share the risks and rewards of development. However, for the reasons I gave in IED/011, it would be inappropriate and potentially unlawful to make that a policy requirement.
189. The North Essex Garden Communities Charter envisages that Local Delivery Vehicle(s) [LDVs], accountable to the NEAs with both private and public sector representation, will be responsible for leading the delivery of the proposed GCs. Three LDVs, together with a holding company known as NEGC Ltd, have been incorporated in readiness to perform this role. Subsequently, in response to consultation on the New Towns Act 1981 [Local Authority Oversight] Regulations, the NEAs indicated an interest in the formation of a locally-led new town development corporation, overseen by the NEAs, to perform the lead role.
190. At the hearings the NEAs explained that the LDVs (or a future locally-led development corporation) are in effect being held in reserve to lead the delivery of the GCs, should it become apparent through the planning application process that the private sector is unable to do so in accordance with the Plan's policies.
191. The role of the Plan is to set out policies and criteria to guide the further planning of the proposed GCs, and to provide part of the framework against which planning applications to develop the GCs would be assessed. Provided that there is evidence that the GC proposals are justified and are capable of being delivered, it is not necessary for the Plan to specify that any particular delivery model must be followed.

Viability

National policy and guidance

192. At paragraph 173 the 2012 NPPF advises that, to ensure viability, the costs of any requirements likely to be applied to development should, when taking account of the normal cost of development and mitigation, provide competitive returns to a willing landowner and willing developer. It also cautions that the sites and scale of development in the plan should not be subject to such a scale of policy obligations and policy burdens that their ability to be developed viably is threatened.
193. The PPG on viability makes it clear that understanding Local Plan viability is critical to the overall assessment of deliverability. The plan's vision for the area should be presented in the context of local economic conditions and market realities. This should not undermine ambition for high-quality design and wider social and environmental benefit, but such ambition should be tested against the realistic likelihood of delivery. Viability assessment should not compromise the quality of development but should ensure that the vision and policies are realistic and provide high-level assurance that plan policies are viable³³.

³³ PPG Ref ID 10-001-20140306 & 10-005-20140306

194. As has been seen in the foregoing sections, the GC proposals in the Plan are predicated on their meeting policy requirements which reflect garden city principles. In this way the Plan seeks to achieve sustainable development in accordance with national planning policy³⁴. The ASA – which provides the principal justification for the inclusion of the GCs in the Plan’s spatial strategy – is based on the assumption that the Plan’s policy requirements for the facilities and infrastructure needed to support them will be met. Demonstrating that the GCs can be viably delivered in accordance with the Plan’s policies is, therefore, critical to establishing their overall deliverability.
195. The PPG also advises that there is no single approach for assessing viability, and sets out a number of principles that viability assessments should follow, including evidence-based judgment, collaboration, transparency and consistency. Plan-makers should not plan to the margin of viability, but instead should allow for a buffer to respond to changing markets and to avoid the need for frequent plan updating³⁵.

Viability assessments produced for the examination

196. When I conducted the 2018 examination hearings the most recent assessment of the GCs’ financial viability before me was the April 2017 Viability Assessment by Hyas [“the 2017 Report”]. In IED/011 I found that it had not demonstrated that the GCs proposed in the submitted Plan were financially viable, and I made a number of points about how any future viability assessment should be carried out.
197. The NEAs commissioned Hyas to carry out further viability work on the GCs, which is reported in the Viability Assessment Update (June 2019, EB/086) [“the 2019 Update”]. This report drew on further work by AECOM and Gleeds [EB/087 & EB/088] to define, and provide phasing and costs for, the infrastructure needed to support the GCs.
198. At my request, Hyas then carried out additional work to take account of two factors:
- Unlike the 2017 Report, the 2019 Update assessed the West of Braintree GC as a cross-boundary site, including land in Uttlesford district. For the reasons given in paragraphs 18-20 above, however, it cannot be assumed that the Uttlesford land would form part of the GC. It was therefore necessary for Hyas to revise their assessment of the West of Braintree GC to exclude the land in Uttlesford district.
 - Despite my findings on build-out rates in IED/011, the 2019 Update assessed all three GCs on the basis that they would deliver 300 dwellings a year [dpa] on average. I therefore asked for further appraisals of all three GCs assuming average delivery of 250dpa.

Hyas’s additional work forms Supplementary Information to their 2019 Update (November 2019, EXD/058) [“the 2019 Supplementary Information”].

199. The NEAs now rely principally on the 2019 Update and Supplementary Information to demonstrate the viability of the proposed GCs. Separate viability assessments were submitted by NEGC Ltd, and by promoters of the Colchester / Braintree Borders and

³⁴ See paras 12-13 above.

³⁵ PPG Ref ID 10-002-20140306, 10-004-20140306 & 10-008-20140306

West of Braintree GCs. Below I consider, first, the 2019 Update and Supplementary Information, and then the other viability appraisals.

200. In considering the appraisals, I am mindful of the PPG's advice that evidence should be proportionate and should demonstrate viability in a broad sense³⁶. While the PPG also calls for greater detail when assessing strategic sites (such as the GCs) which require high infrastructure investment, at this early stage of planning many costs and values cannot be known exactly. What is important is not that the appraisals achieve an unrealistically high degree of precision or certainty, but that they provide a robust indication that the proposed GCs are capable of being viably delivered.

Competitive return to a willing landowner

201. The PPG advises that a competitive return for the landowner is the price at which a reasonable landowner would be willing to sell their land for the development. The price will need to provide an incentive for the landowner to sell in comparison with the other options available, which may include its current use value or its value for a realistic alternative use³⁷. Most of the land in each proposed GC's area is currently in agricultural use, with a current use value of around £10,000/acre.
202. Many participants suggested that a price of around £100,000/acre is the minimum needed to provide a competitive return. They included promoters of two of the three GC sites and others with knowledge of the local land market. While there is only limited evidence to support that figure, it appears likely that it is indicative of current market expectations. Care needs to be taken not to base viability assessment on a land price which is too far below such expectations, if landowners are to be persuaded to sell.
203. On the other hand, as a RICS research document³⁸ points out, basing land values on comparable evidence without adjustment to reflect policy requirements can lead to developers overpaying for land. This may in turn compromise the achievement of the policy requirements, if the developer then seeks to recover the overpayment by seeking a reduction in their planning obligations.
204. Taking these points and the other relevant evidence into account, there seems little doubt that a land price of around £100,000/acre on any of the proposed GC sites would provide sufficient incentive for a landowner to sell. In my view, it is also reasonable to assume that a price below £100,000/acre could be capable of providing a competitive return to a willing landowner, when account is taken of the necessarily substantial requirements of the Plan's policies.
205. In the absence of clear local evidence, it is difficult to estimate the minimum land price that would constitute a competitive return. The price achieved for development land in other places and in other circumstances is unlikely to provide a reliable guide. In my judgment, however, it is extremely doubtful that, for the proposed GCs, a land price below £50,000/acre – half the figure that appears likely to reflect current market

³⁶ PPG ID Ref 10-005-20140306

³⁷ PPG ID Ref 10-015-20140306

³⁸ RICS, Financial Viability Appraisal in Planning Decisions: Theory and Practice, April 2015

expectations – would provide a sufficient incentive to a landowner. The margin of viability is therefore likely to lie somewhere between a price of £50,000 and £100,000 per acre.

Hyas's 2019 Update and Supplementary Information

206. Like Hyas's 2017 Report, the 2019 Update follows the residual valuation method. Its methodology is similar to that of the 2017 Report, but with a number of changes to the inputs and assumptions. It presents summaries and cashflows for three different scenarios:
- Reference scenario (no grant, no inflation) – all three GCs;
 - Grant scenario (including HIF grant) – Colchester / Braintree Borders and Tendring / Colchester Borders GCs;
 - Inflation scenario – all three GCs.
207. Each of these scenarios was subject to sensitivity testing of contingency allowances at 10%, 20% and 40% on certain infrastructure items. The Supplementary Information is presented for the same ranges of scenarios and contingency allowances as the 2019 Update.

Land purchase

208. The 2019 Update and Supplementary Information make appropriate allowances for the cost of interest on land purchase. These were omitted from the 2017 Report.
209. The assumption is made that the land for the GCs is purchased in tranches throughout the development period, each tranche being purchased two years before it is required for development. This is a necessarily simplified assumption for the purposes of viability appraisal, and it may well be that the actual pattern of land purchases is more irregular than this. Nonetheless, the assumption is justified by the evidence that phased draw-down of land is common practice in large-scale development schemes.
210. Accordingly, it is appropriate for the 2019 Update and Supplementary Information to assume that land payments are staged throughout the development period. In the Reference and Grant scenarios those payments are set at current values, consistent with the approach taken to all other costs and returns. I consider the Inflation scenarios separately below.

Infrastructure costs

211. I consider that the base infrastructure costs (exclusive of contingency allowances) that are used in the 2019 Update and Supplementary Information are generally appropriate, except in the case of the RTS.
212. For the reasons given above in my consideration of the RTS, I consider that at the very least the upper-bound costs of the higher-investment scenario in the RTS Vision to Plan document should be used for the purposes of viability assessment. Even those upper-bound costs may well underestimate the likely capital cost of RTS Routes 2, 3 and 4. However, the 2019 Update and Supplementary Information take the lower-bound costs of the higher-investment scenario as the base costs for the RTS, to which contingency allowances of 10%, 20% or 40% are applied, as discussed below.

213. The upper-bound costs for the RTS in Vision to Plan are 44% higher than the lower-bound costs. Consequently, the base costs allowed for the RTS in the 2019 Update and Supplementary Information fall a long way short of the minimum that I consider appropriate, even after taking account of the fact that the costs in Vision to Plan include a 10% allowance for professional fees.

Contingency allowances

214. In the 2019 Update and Supplementary Information's 10% contingency scenarios, a 10% contingency allowance applies to all infrastructure items. In the 20% and 40% contingency scenarios, the higher contingency allowance is applied only to the base costs of those infrastructure items in the Scheme Wide Other Itemised category (transport and utilities), with the contingency allowance on the other items remaining at 10%. This approach appropriately reflects the fact that it is the items in that category which are most likely to be subject to unknown additional costs.
215. In considering what is an appropriate level of contingency allowance, it is necessary to recognise that the Section 1 Plan represents the initial stage of planning for the proposed GCs, setting out broad parameters and high-level infrastructure requirements for them. The exact amount of development that each GC will contain, and the precise nature and scale of its infrastructure requirements, will be established through Strategic Growth DPDs and masterplans which have yet to be drawn up.
216. In general terms, the level of contingency allowance that is appropriate varies according to the stage of planning that a development project has reached. Costs are likely to be underestimated (a phenomenon known as "optimism bias") if an adequate allowance for contingencies is not made at each stage. In the early stages, when the project is less well-defined and there is greater uncertainty over the factors influencing the eventual outturn costs, a higher level of contingency allowance is usually appropriate. As planning progresses and uncertainties reduce, the level of contingency allowance may be reduced accordingly.
217. The Treasury's Supplementary Green Book Guidance on optimism bias (April 2013) advises that an upper-bound optimism bias allowance of 44% for capital expenditure on standard civil engineering projects provides a first starting point and reasonable benchmark. It reflects the average historic optimism bias which research found to occur at the outline business case stage.
218. While the Green Book guidance specifically applies to public-sector commissions, in my view similar considerations apply at the stage of planning that the GCs have reached. At this early stage, and particularly when account is taken of their large scale and very long build periods, it is inevitable that many uncertainties remain over the infrastructure requirements of the proposed GCs. As discussed above³⁹, for example, decisions have yet to be made on which of the options for water supply and waste water treatment will be pursued at each GC. Nor has there been any significant analysis of the risks to infrastructure delivery.
219. Moreover, as I have set out above, the base costs allowed for the RTS in the 2019 Update and Supplementary Information fall well below the minimum figure I consider necessary. Adding a 40% contingency allowance to the base costs for the RTS would

³⁹ At paras 106 and 154-156

only bring it up to around that minimum figure, with no significant margin for any additional costs that may well arise, such as for structures or land acquisition. The RTS costs represent a substantial proportion of the costs in the Scheme Wide Other Itemised Infrastructure category.

220. For all these reasons, I consider that at this stage of planning it would be reasonable to expect a contingency allowance of at least 40% to be applied to the items in the Scheme Wide Other Itemised category. Any lower figure would, in my view, provide insufficient reassurance that all the necessary infrastructure requirements of the proposed GCs would be met.

Rate of housing delivery

221. In the light of my conclusions on build-out rates in paragraphs 157-175 above, I consider that viability appraisal of the proposed GCs should be carried out on the basis of an average annual housing delivery rate of 250dpa. Basing the appraisal on a higher average rate would not provide a reliable indication of viability.

Interest on strategic investment borrowing

222. As in 2017, the 2019 Update and Supplementary Information assume that all borrowing for land purchase and infrastructure provision is funded at an interest rate of 6%. In my experience this is a fairly common assumption in local plan viability assessments. Having had regard to all the relevant submissions and evidence, I consider there is a good prospect that a master-developer for the proposed GCs would be able to obtain finance at that rate. The NEAs are confident that this would not give rise to any issue of state aid compliance. The state aid complaint that was submitted to the European Commission in February 2020 concerns other aspects of Government funding for the GCs and its outcome is not yet known.

Grant scenarios

223. The Grant scenarios in the 2019 Update and Supplementary Information assume that HIF grants are available to fund transport infrastructure for two of the three proposed GCs: the A120/A133 link road and RTS Route 1 for Tendring / Colchester Borders GC, and the A12 realignment between junctions 24 and 25 for the Colchester / Braintree Borders GC. Both HIF grants have now been confirmed.

Inflation scenarios

224. The 2017 Hyas Report made no allowance for inflation in its modelling, and in IED/011 I endorsed that approach. However, the 2019 Update and Supplementary Information include Inflation scenarios for all three GCs.
225. The assumptions made by Hyas in modelling the Inflation scenarios are that building costs and property sale values increase at an annual rate of 4%, while strategic infrastructure costs increase at 3.5% annually. This produces a small additional margin year-on-year, but over the GCs' long development periods it results in dramatic increases in residual land values [RLVs], up to 10 or even 20 times the RLVs in the corresponding non-inflation scenarios.

226. The PPG advises that current costs and values should be considered when assessing the viability of plan policy. Policies should be deliverable and should not be based on an expectation of future rises in values for at least the first five years of the plan period. This will help to ensure realism and avoid complicating the assessment with uncertain judgments about the future⁴⁰.
227. The Harman Report Viability Testing Local Plans⁴¹, while not Government policy, also provides helpful advice on this topic. It says that the most straightforward way to assess plan policies for the first five years is to work on the basis of current costs and values, and that
for the period beyond the first five years (ie. the 6-15 year period) a more flexible approach may be taken, recognising the impact of economic cycles and policy changes over time. Forecasting things like house prices or costs is notoriously difficult over the shorter term, and subject to wider inaccuracies over the medium and longer term. The best a council can realistically seek to do is to make some very cautious and transparent assumptions with sensitivity testing of the robustness of those assumptions.
228. Neither the PPG nor the Harman Report consider the approach to assessing viability beyond 15 years. But the latter's advice about the uncertainty and difficulty of forecasting in the 6- to 15-year period applies with even greater force to attempts to forecast price and cost changes over the much longer timeframes of the proposed GC developments. Hyas themselves acknowledge in the Update that there are difficulties inherent in forecasting, especially over such long timeframes, and that there are no potential references or market projections published over such long-term periods.
229. Even if the average annual growth in house prices over the last 20 years is significantly greater than the 4% rate assumed in the Inflation scenarios, that is no guarantee that an average 4% growth rate will be sustained throughout the decades that it would take to build the proposed GCs. Similar uncertainty applies to changes in building and infrastructure costs. Notwithstanding these substantial uncertainties, Hyas did not carry out sensitivity testing of different potential inflation rates as recommended by Harman.
230. For all these reasons, I consider that the Inflation scenarios do not provide a reliable indication of the viability of the proposed GCs.

Conclusions on the 2019 Update and Supplementary Information

231. For the above reasons, I consider that the Inflation scenarios, the scenarios based on average housing delivery of 300dpa, and the scenarios for the proposed West of Braintree GC including land in Uttlesford district do not provide a reliable indication of the viability of the proposed GCs. It is appropriate to consider the viability of the proposed Tendring / Colchester Borders and Colchester / Braintree Borders GCs based on the Grant scenarios, since their associated HIF grants have been confirmed. The Reference scenario is the appropriate basis for considering the proposed West of Braintree GC. Based on my findings above on contingency allowances, in each of these scenarios a contingency allowance of at least 40% needs to be applied to all the items in the Scheme Wide Other Itemised category.

⁴⁰ PPG Ref ID 10-008-20140306

⁴¹ Produced by the Local Housing Delivery Group, June 2012

232. As noted above, the 2019 Update and Supplementary Information follows the residual valuation method, in which all the costs of development are subtracted from the value of the development in order to arrive at a residual land value. The costs of development include the infrastructure requirements for the GCs, which (in accordance with national policy) appropriately reflect the garden city principles that underpin them. In order to demonstrate the viability of each proposed GC, the residual land value produced by the appropriate assessment scenario must achieve a competitive return to a willing landowner that is above the margin of viability⁴². Should this not be achieved, the viability of the GC will not have been demonstrated.
233. For the proposed Tendring / Colchester Borders GC, the Grant scenario assessment in the 2019 Supplementary Information, based on average delivery of 250dpa with a 40% contingency allowance, gives a residual land value of over £175,000/acre. That is well above the figure that I consider would constitute a competitive return to a willing landowner. This would allow sufficient financial headroom to overcome any concerns about the contingency allowance for the A120/A133 link road, or any additional costs associated with the link road or with RTS Route 1. I therefore consider that the viability of the Tendring / Colchester Borders GC has been demonstrated.
234. For the Colchester / Braintree Borders GC, on the other hand, the Grant scenario assessment, based on average delivery of 250dpa with a 40% contingency allowance, gives a residual land value of only around £24,500/acre. That is well below what I consider to be a competitive return to a willing landowner.
235. For the West of Braintree GC, the Reference scenario, based on delivery of 250dpa with a 40% contingency allowance, produces a residual land value of around £52,000/acre. I consider that this would place the development below or, at best, at the margin of viability.

The NEGC viability assessment

236. The viability appraisal submitted by NEGC Ltd covers all three GCs. Unlike the Hyas assessments and those carried out by site promoters, it is not a residual valuation. Instead the price of land at each GC is an input to the appraisal, and the output is a figure for the rate of return on capital invested. In each case the land price was calculated on the assumption that the land and rights required are to be compulsorily acquired.
237. The per-acre land values used in the appraisal are around £24,000 for the West of Braintree GC, £26,000 for the Colchester / Braintree Borders GC, and £39,000 for the Tendring / Colchester Borders GC. In each case this is well below what I consider to be a competitive return to a willing landowner and accordingly it appears unlikely that land could be purchased by agreement at that price.
238. Compulsory purchase order [CPO] powers are available to the NEAs as local planning authorities, and would also be available to a locally-led new town development corporation, should the NEAs establish one. In either case, one of the matters which the Secretary of State is required to take into account when deciding whether to confirm a CPO is whether the purpose for which the land is being acquired could be

⁴² PPG ID Ref 10-015-20140306 & 10-008-20140306

achieved by any other means. This may include considering the appropriateness of any alternative development proposals put forward by the owners of the land, or any other persons⁴³.

239. In a situation where there are landowners and developers prepared to develop each of the GC sites, it appears likely that any proposed CPO would be contested, with the potential for considerable delay and uncertainty, and with no guarantee as to the outcome.
240. In the NEGC appraisal, interest rates are assumed to be 2.5% for land purchase and 3.5% for infrastructure borrowing, well below the 6% rate assumed by Hyas. A statement from Homes England indicates that in recent years they have made £2,500M worth of infrastructure loans at similar rates to developers in order to unlock or accelerate the delivery of large-scale housing projects. However, the loan rate is dependent on the potential borrower satisfying certain defined criteria for creditworthiness and collateralisation. I have no clear evidence that those criteria are capable of being satisfied in such a way as to justify a loan rate of 3.5% for each of the GCs.
241. Even if the issues of land purchase and interest rates could be resolved, the NEGC viability appraisals also assume average housing delivery at each of the proposed GCs at rates of 300dpa and 500dpa. I consider these to be unsound assumptions, for the reasons set out above.
242. Moreover, while the NEGC appraisals use infrastructure base costs derived from the same source as Hyas (EB/087), they apply a 44% optimism bias allowance to some transport and utility items, but only 10% to others. For the West of Braintree GC nine items⁴⁴ receive a 44% allowance, for Colchester / Braintree Borders GC three items, and for Tendring / Colchester Borders one item. No explicit rationale for these distinctions is provided, and it is at odds with my finding that it a 40% contingency allowance should be applied to all the items in the Scheme Wide Other Infrastructure category.
243. In the light of these points, I consider that the NEGC appraisals do not provide a reliable indication of the viability of each of the proposed GCs.

The viability assessments submitted by the GC site promoters

244. Some of the assessments submitted by promoters of the GC sites assume average housing delivery rates of 300dpa or above throughout the GCs' development period. For the reasons given above, I consider that reliance cannot be placed on viability assessment based on that assumption.
245. Two viability assessments were, however, provided for average delivery rates of 250dpa. The assessment for the Andrewsfield New Settlement Consortium [ANSC] is for a development including some 8,300 dwellings on land in Braintree district within the broad location of the proposed West of Braintree GC. It includes infrastructure costs based on a per-dwelling figure of around £53,200. There is no detailed

⁴³ MHCLG, Guidance on Compulsory purchase process and The Crichel Down Rules (July 2019), paras 106 & 143

⁴⁴ Counting the various phases of the RTS off-site network as one item.

explanation of how that figure was arrived at. But when explaining the £51,000 per-dwelling figure used in their earlier appraisal (based on average delivery of 300dpa), the authors of the assessment say that they consider the Hyas infrastructure allowance of £53,000 per dwelling, informed by the Gleeds costs estimates [EB/087] to be reasonable.

246. The Hyas allowance of £53,000 per dwelling was for a 12,500-dwelling scheme including land in Uttlesford district. When assessing a 10,000-dwelling scheme wholly within Braintree district as proposed in the Plan, Hyas used a figure of £57,000 per dwelling, significantly higher than the circa £53,000 figure in the ANSC assessment. Since the Hyas scheme is also some 1,700 dwellings larger, this means that its total infrastructure allowance, excluding contingencies, is £570M, as against around £442M for the ANSC scheme.
247. While some of this discrepancy can be explained by infrastructure costs (such as education and community facilities) which vary on a per-dwelling basis, there are also substantial fixed costs, including for transport infrastructure such as the RTS. Without a breakdown of how the ANSC infrastructure allowance was arrived at, it seems likely that it is an underestimate.
248. Of even greater concern is that in the ANSC assessment, infrastructure spending is assumed to occur at a constant annual rate throughout the GC's five-decade build programme. That is an unrealistic assumption, at odds with the phasing in EB/087, which more realistically allocates 100% of many of the large transport and utility infrastructure costs to the first one or two phases of the build programme.
249. In addition, the ANSC assessment applies a contingency rate of 10% to all infrastructure costs. In my view that is wholly inadequate for transport and utility infrastructure, for the reasons discussed above.
250. The other viability assessment said to be based on delivery of 250dpa was prepared for the promoters of the larger part of the Colchester / Braintree Borders GC [CBBGC]. It is for a scheme including 17,000 dwellings and includes a per-dwelling infrastructure cost similar that used in the Hyas Grant scenario. (The Grant scenario is the appropriate comparison because it excludes the cost of the A12 realignment, which is unnecessary for the CBBGC promoters' 17,000-dwelling scheme).
251. In the CBBGC assessment the first dwellings are assumed to be delivered in 2023. At an average rate of 250dpa, a 17,000-dwelling scheme should take 68 years to deliver. However, the submitted spreadsheets [EXD/085] appear to show the last dwellings completed in 2079, some 11 or 12 years early. The reason seems to be that, whereas for most of the build period delivery is shown as taking place at the rate of 20 dwellings per month (240dpa), for several years in the middle of the build period a rate of 40 dwellings per month (480dpa) is shown. It is not clear, therefore, that the assessment is in fact based on average delivery of 250dpa as intended.
252. Like the ANSC assessment, the CBBGC appraisal also applies a wholly inadequate 10% contingency rate to transport and utility costs. There is no clear evidence that the 27.5% profit rate which they apply would provide a sufficient safeguard against the substantial uncertainties over those costs at this early stage of planning.
253. The CBBGC appraisal also assumes a housing sale price of £351/sq ft, 5% higher than the price of £334/sq ft (based on their analysis of actual market values) in the earlier CBBGC appraisal based on delivery of 354dpa. This increase is explained by the suggestion that the reduced supply of homes to the market would result in

increased sales values. But no substantial evidence was provided to support that suggestion, and I consider it unlikely that a reduction in delivery of around 100dpa at one development would have such an effect, when account is taken of all the other development that is proposed to come forward in the housing market area.

254. In the light of these points, I consider that the assessments submitted by promoters of the GC sites do not provide a reliable indication of the viability of the proposed West of Braintree GC or Colchester / Braintree Borders GC.

Conclusions on soundness

255. The ASA is unable to conclude that any of the spatial strategy options, to the west or east of Colchester, is the most sustainable option. It says that the advantage of the strategy in the submitted Section 1 Plan is that it provides clear direction to accommodate strategic development over many decades to come. For the NEAs, the ability of the proposed GCs to provide for long-term strategic growth is one of the key reasons for pursuing the Section 1 Plan strategy in preference to the alternatives, notwithstanding that the ASA finds that some of the alternative options offer opportunities to deliver similar benefits.
256. Consequently, the Plan's spatial strategy, which includes the three proposed GCs, would only be justified as the most appropriate strategy if it can be shown that each GC is deliverable, not just over the Plan period but over the long term. And in order to meet both the NPPF's guidance on infrastructure provision and the Plan's policy requirements, which in accordance with national policy reflect garden city principles, the infrastructure necessary to support the GC's development must also be shown to be deliverable. An assessment of deliverability is also central to the question of whether or not the Plan is effective.
257. Viability appraisal shows that, with an appropriate 40% contingency allowance on transport and utilities infrastructure, the proposed **Colchester / Braintree Borders GC** would not achieve a viable land price, and that the proposed **West of Braintree GC** is below, or at best is at the very margin of, financial viability, contrary to advice in the PPG. On this basis, neither GC is deliverable.
258. For separate reasons, given in paras 143-151 above, neither RTS Route 3 nor RTS Route 4 has been shown to be deliverable. The proposed West of Braintree GC depends on Route 3 for its public transport links to destinations outside the GC, and on Route 4 for links to places east of Braintree. Without those routes, apart from the few journeys that might be possible on foot or bicycle, the car would be the only realistic choice for travel beyond the GC itself.
259. Housing development at the proposed Colchester / Braintree Borders GC is intended to help meet the housing needs of both Colchester borough and Braintree district, and there is a strong commuting relationship between the two local authority areas. Notwithstanding the links to other destinations offered by RTS Route 2 and by rail services from Marks Tey station, the GC would depend on Route 4 for its public transport links westwards to Braintree.
260. In these circumstances, the fact that RTS Routes 3 and 4 have not been shown to be deliverable is entirely at odds with the Plan's aspirations for integrated and sustainable transport networks. Even if the A120 dualling scheme has a good prospect of being delivered as part of the RIS3 programme, not to provide the necessary public

transport connections from these two GCs would directly conflict with the NPPF's advice that the transport system needs to be balanced in favour of sustainable transport modes.

261. For the foregoing reasons, therefore, I find that the proposed Colchester / Braintree Borders and West of Braintree GCs are not justified or deliverable. Consequently, the Plan's spatial strategy, and thus the Plan itself as submitted, are unsound.
262. On the other hand, the financial viability of the proposed **Tendring / Colchester Borders GC** is very strong. With an appropriate 40% contingency allowance on transport and utilities infrastructure, it would enable a competitive land price to be paid, while leaving substantial headroom to meet any additional costs that might arise. This provides assurance that the necessary infrastructure, including RTS Route 1, the A120/A133 link road and local highway improvements, are deliverable in the time-frame necessary to support the GC's development. The evidence therefore shows that the GC is deliverable over its lifetime.
263. The broad location for the proposed Tendring / Colchester Borders GC is close to Colchester, the largest town in North Essex, to which it would be connected by RTS Route 1. The GC would have access to the wide range of employment, retail, leisure, healthcare and other facilities in Colchester, in addition to those that would be provided within the GC itself, and to employment opportunities at the adjacent University of Essex and Knowledge Gateway. Tendring district has a very strong commuting relationship with Colchester, and weaker relationships with Braintree and other destinations to the west of Colchester. As a result, the accessibility of the proposed GC is not critically dependent on the delivery of the other RTS routes.
264. Based on the NEAs' current housing trajectory, and taking into account my conclusions on the rate of housing delivery, the Tendring / Colchester Borders GC would deliver over 2,000 dwellings during the Plan period. That would make a worthwhile contribution to meeting the Plan's overall housing requirement. Based on the latest housing supply figures⁴⁵, it would represent an over-allocation of approximately 5% against the overall requirement. Whether that level of over-allocation is sufficient, and whether the other sources of housing supply will come forward as the NEAs expect, are matters to be considered in the Section 2 plan examinations.
265. As I have discussed above, the ASA made separate assessments of alternative spatial strategies for the areas to the west and east of Colchester. For the above reasons, I consider that the evidence supports the NEAs' view that the proposed Tendring / Colchester Borders GC is the most appropriate of the alternative spatial strategies for the area to the east of Colchester.
266. I therefore conclude that development of the Tendring / Colchester Borders GC would enable the delivery of sustainable development in accordance with the NPPF's policies. If the unsound Colchester / Braintree Borders and West of Braintree GC proposals are removed from the Plan, the Plan is capable of being made sound.

⁴⁵ See para 84 above.

Advice on the way forward

267. In the light of this conclusion it appears to me that the NEAs have two main options:
- To propose and consult on main modifications to remove the Colchester / Braintree Borders and West of Braintree GC proposals from the Plan; or
 - To withdraw the Plan from examination.
268. If the NEAs wish to pursue the first option, they will need to make a formal request under Section 20(7C) of the 2004 Act, asking me to recommend main modifications that would make the Plan sound and legally-compliant. A schedule of proposed main modifications, based on the list of suggested amendments drafted by the NEAs [EB/091B] would then need to be agreed between myself and the NEAs.
269. As well as modifications to remove the two GC proposals from the Plan, the schedule would contain more detailed modifications to other Plan policies that I consider are likely to be necessary in the light of the representations on the Plan and the discussion at the hearing sessions. Some of these have been discussed above. The main modifications would need to be the subject of full public consultation for a minimum of six weeks, and I would need to consider all the responses to the consultation before producing my report and recommendations.
270. Should the NEAs decide to pursue the first option, they will also need to consider whether it is necessary for further SA and/or SEA work to be carried out and consulted upon. The PPG advises:
- It is up to the plan-making body to decide whether the sustainability appraisal report should be amended following proposed changes to an emerging plan ... If the plan-making body assesses that necessary changes are significant, and were not previously subject to sustainability appraisal, then further sustainability appraisal may be required and the sustainability report should be updated and amended accordingly⁴⁶.
271. In deciding which option to pursue, the NEAs may wish to bear in mind that it is possible that the responses to public consultation on the main modifications may give rise to the need for further hearing sessions. On this point, the Planning Inspectorate's Procedure Guide for Local Plan Examinations advises at paragraph 6.9:
- The Inspector will consider all the representations made on the proposed MMs before finalising the examination report and the schedule of recommended MMs. Further hearing sessions will not usually be held, unless the Inspector considers them essential to deal with substantial issues raised in the representations, or to ensure fairness.
272. In addition, if the official 2018-based household projections are published while the examination is still in progress, consideration will need to be given to any implications the projections may have for the soundness of the housing requirement figures in the Plan.

⁴⁶ PPG Ref ID 11-023-20140306

273. For these reasons, at present it is not possible to give a clear indication of when my report and recommendations on the Plan are likely to be produced, should the NEAs decide to pursue the first option.
274. Apart from my request at paragraph 7 above for a response from the NEAs to EXD/091, I am not inviting comments on the contents of this letter. I will, however, assist with any queries the NEAs may have.
275. It would be helpful if you would let me know, as soon as you are able to, which of the options outlined in paragraph 267 above (or any alternative course of action) the NEAs wish to pursue. This will enable a timescale for the remainder of the examination to be developed, should the NEAs wish to pursue the first option. Please contact me through the Programme Officer.

Yours sincerely

Roger Clews

Inspector