

Sustainability Appraisal (SA) of the Brentwood Local Plan

Reasonable alternatives briefing note

January 2018

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1	January 2018	Reasonable alternatives briefing note	Mark Fessey Principal Consultant	Steve Smith Technical Director	Steve Smith Technical Director

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AECOM Infrastructure & Environment UK Limited
 2 Leman Street, London E1 8FA
 Telephone: 020 7061 7000

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1 INTRODUCTION

1.1.1 AECOM is commissioned to undertake Sustainability Appraisal (SA) in support of the emerging Brentwood Local Plan. SA is a mechanism for considering and communicating the likely effects of a draft plan, and alternatives, with a view to avoiding and mitigating adverse effects and maximising the positives. SA of Local Plans is a legal requirement.¹

1.2 SA explained

1.2.1 It is a requirement that SA is undertaken in-line with the procedures prescribed by the Environmental Assessment of Plans and Programmes Regulations 2004, which were prepared in order to transpose into national law the EU Strategic Environmental Assessment (SEA) Directive.²

1.2.2 In-line with the Regulations, a report (known as **the SA Report**) must be published for consultation alongside the draft plan that essentially 'identifies, describes and evaluates' the likely significant effects of implementing 'the plan, and reasonable alternatives'.³ The report must then be taken into account, alongside consultation responses, when finalising the plan.

1.2.3 More specifically, the SA Report must answer the following **three questions**:

1. What has Plan-making / SA involved **up to this point**?
 - Including with regards to consideration of 'reasonable alternatives'.
2. What are the SA findings **at this stage**?
 - i.e. in relation to the draft plan.
3. What happens **next**?
 - What steps will be taken to finalise the plan?
 - What measures are proposed to monitor plan implementation?

1.3 The forthcoming Interim SA Report

1.3.1 The Council is soon to consult on 'Preferred Site Allocations', under Regulation 18 of the Local Planning Regulations, which will essentially equate to consulting on an *early* draft plan. An 'Interim' SA Report will be published alongside, with the intention of informing the consultation and subsequent preparation of the final draft ('proposed submission') plan, which will then be published under Regulation 19. There is no strict legal requirement to report any particular SA related information as part of Regulation 18 consultations; however, the forthcoming Interim SA Report will nonetheless be structured according to the three questions listed above, so as to present the information required of the SA Report.

1.4 This briefing note on reasonable alternatives

1.4.1 This briefing note presents a focused discussion on reasonable alternatives, aimed at informing Elected Members at the current time, ahead of the Interim SA Report being finalised in time for the start of the forthcoming consultation on Preferred Site Allocations.

¹ Since provision was made through the Planning and Compulsory Purchase Act 2004 it has been understood that local planning authorities must carry out a process of Sustainability Appraisal alongside plan-making. The centrality of SA to Local Plan-making is emphasised in the National Planning Policy Framework (NPPF, 2012). The Town and Country Planning (Local Planning) (England) Regulations 2012 require that an SA Report is published for consultation alongside the 'Proposed Submission' plan document

² *Procedurally* SA and SEA are one and the same, on the basis that there is no legislation or guidance to suggest that SA process should differ from the prescribed SEA process. SA and SEA differ only in terms of substantive focus. SA has an equal focus on all three 'pillars' of sustainable development (environment, social and economic), whilst SEA involves a degree of focus on the environmental pillar. SA can therefore be said to 'incorporate' SEA.

³ Regulation 12(2) of the Environmental Assessment of Plans and Programmes Regulations 2004.

2 SELECTING REASONABLE ALTERNATIVES

2.1 Background

2.1.1 There are two important ‘background’ points to note -

- 1) The SEA Regulations, which underpin the SA process, require the SA Report to include “an outline of the reasons for selecting the alternatives dealt with”. The requirement to provide ‘**outline**’ reasons implies a degree of discretion on the part of plan-makers. Recent precedents serve to confirm this point.⁴
- 2) The SEA Regulations require that reasonable alternatives must be defined taking into account ‘the objectives of the plan’. This implies a need to focus attention on reasonable alternative approaches to the allocation of land for housing - or ‘**reasonable spatial strategy alternatives**’. Allocation of land for housing is a key objective of the Brentwood Local Plan, the issue that proves most contentious amongst stakeholders, and the matter most likely to have a significant bearing on the sustainability baseline.

2.2 Overview of the process

2.2.1 The first point to note is that, in the case of the Brentwood Local Plan, the task is not so much one of ‘selecting’ reasonable alternatives, as ‘refining’ the reasonable alternatives that have been the subject of appraisal and consultation in the past. As can be seen from **Figure 2.1**, the Brentwood Local Plan SA process has been ongoing for some years, with several Interim SA Reports having been published, each discussing reasonable alternatives.

Figure 2.1: Key steps in the plan-making / SA process

	Plan-making	SA
2009 - 2013	Early plan-making steps, SA scoping and informal appraisal	
2013	Preferred Options consultation	Interim SA Report
2015	Strategic Growth Options consultation	Interim SA Report
2015	Dunton Hills Garden Village consultation	Interim SA Report*
2016	Draft Plan consultation	Interim SA Report
2017 - 2018	Further work to consider options / alternatives	
January 2018	Preferred Site Allocations consultation	Interim SA Report
Mid 2018	Publication (Reg 19)	SA Report
Late 2018	Submission to Secretary of State	



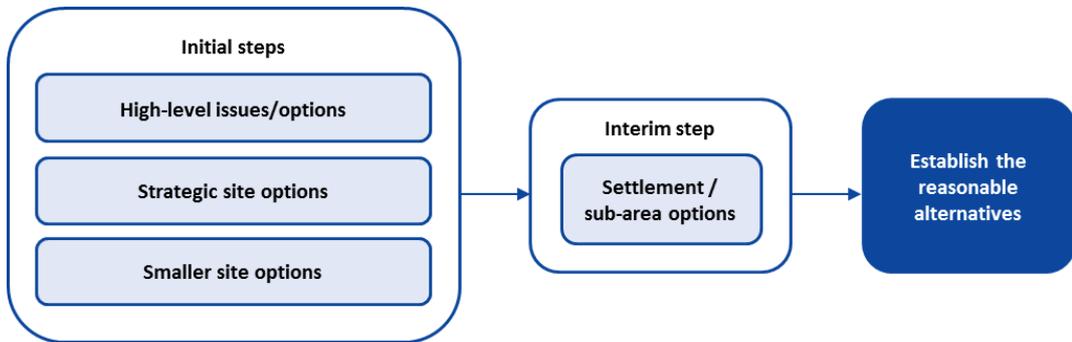
* The ISA Report published alongside the Dunton Hills Garden Village consultation document was prepared jointly with Basildon District Council, and led by LUC consultants.

⁴ Ashdown Forest Economic Development LLP v Secretary of State for Communities and Local Government [2014]: “As to the substance of the work to be done by a local planning authority in identifying reasonable alternatives for environmental assessment, the necessary choices to be made are deeply enmeshed with issues of planning judgment, use of limited resources and the maintenance of a balance between the objective of putting a plan in place with reasonable speed... and the objective of gathering relevant evidence and giving careful and informed consideration to the issues to be determined. The effect of this is that the planning authority has a substantial area of discretion as to the extent of the inquiries which need to be carried out to identify the reasonable alternatives which should then be examined in greater detail...”

East Riding Local Plan, Inspector’s Report (2016): “Assessing alternative options is a fundamental strand of plan-making. It is necessary for soundness, and a Plan can only be justified when it has been formulated on such a basis. On the whole, it is the function of the Sustainability Appraisal to perform this task... **Without a proportionate, pragmatic and realistic approach to the consideration of alternative options, the plan-making process would be unduly burdened and inevitably delayed significantly.**” [emphasis added]

2.2.2 The 2016 reasonable alternatives, and consultation responses received, provided a useful starting point when selecting reasonable alternatives in 2017/18; however, the task of refining the 2016 reasonable alternatives was nonetheless quite involved. A summary of the steps taken is presented in **Figure 2.2**, and under the subsequent headings (N.B. more complete “outline reasons” will be presented within the forthcoming Interim SA Report).

Figure 2.2 Establishing reasonable alternatives



2.3 High-level issues/options

Introduction

2.3.1 As a first step, when refining reasonable alternatives, there was a need to consider the ‘top down’ factors with a bearing on the quantum of homes to be provided for the through the new Brentwood Local Plan, and the broad distribution of these homes.

2.3.2 With regards to ‘quantum’, there is a strong argument to suggest that the Local Plan must provide for Objectively Assessed Housing Need (OAHN), in order to align with Government Policy (NPPF para. 47). This would mean providing for circa 380 dwellings per annum (dpa), or circa 7,600 dwellings across the plan period (2013-33). However, there is also a need to give consideration to lower and higher growth options.

2.3.3 With regards to lower growth, officers have explored the option of providing for a proportion of Brentwood’s OAHN within neighbouring local authorities that are less constrained by national designations (the entirety of the Borough’s countryside is Green Belt, and development opportunities within the urban areas are very limited); however, to date, these ‘Duty to Cooperate’ discussions have not highlighted any significant opportunities.

2.3.4 With regards to higher growth options, there are several factors to consider -

- Calculating OAHN is not an exact science, with Government currently consulting on a standardised national methodology which, were it to be adopted as national policy, would indicate a higher OAHN figure for Brentwood Borough (454 dpa, capped).
- Whilst Brentwood has a self-contained housing market, and Duty to Co-operate discussions have confirmed that immediate neighbouring authorities are aiming to meet OAHN within their boundaries, there is always the possibility of Brentwood being asked by a nearby authority to provide for unmet housing needs.
- Government’s Planning Practice Guidance (PPG) states that: “An increase in the total housing figures included in the local plan should be considered where it could help deliver the required number of affordable homes.” Affordable housing delivery has not kept pace with targets, which potentially suggests a need to consider providing for ‘above OAHN’ in order to boost the supply of affordable housing (recognising that market housing delivery is the primary source of funding/delivering affordable housing). That said, it is not clear that this is the case. Housing viability is strong in Brentwood, indicating good potential to require all developments (including potentially small developments, subject to further viability analysis) to provide for a high proportion of affordable housing.

- 2.3.5 With regards to ‘top down’ messages on the matter of **broad distribution**, the picture is somewhat clearer, in that there is a fairly well established broad spatial strategy, which is one focused primarily on the A12 and A127 transport corridors. The A12 corridor contains the main urban area, whilst the A127 corridor is rural (albeit at the western extent is M25 J29 and London Borough of Havering, and to the east is Basildon); however, the A127 may be as well suited to growth as the A12 corridor, if not more so. The matter of balancing growth between the corridors is returned to below, as is the matter of distributing a small proportion of growth to locations outside of the two corridors.
- 2.3.6 Finally, with regards to broad distribution, there is a need to reiterate a point made above, regarding the necessity of providing for OAHN *within the Borough*, rather than seeking to export a proportion of OAHN. There might feasibly be increased sub-regional cooperation in the future, on the matter of distributing housing needs to locations that are least constrained by national designations; however there is no certainty regarding timescales (whilst the urgency of adopting the Brentwood Local Plan is well understood).

2.4 Strategic site options

- 2.4.1 The desire to deliver at least one large-scale, strategic site (likely for a mix of uses, to include both housing and employment) is quite well established, recognising: A) limited opportunities within settlements; B) no potential to export ‘unmet needs’ (as discussed); and C) the alternative of piecemeal Green Belt development dispersed widely has significant draw-backs (this option was appraised within the 2013 Interim SA Report).
- 2.4.2 A number of strategic site options have been examined over recent years, including through consultation and SA work, such that there is now something of a ‘refined’ understanding of those sites that are genuine contender for allocation through the Local Plan -
- **Dunton Hills Garden Village** - the option of developing a new community between West Horndon and Basildon has been given close examination since 2015. The option featured in the appraisal of reasonable spatial strategy alternatives reported within the 2015 and 2016 Interim SA Reports, plus there was the Dunton Garden Suburb consultation in 2015. Dunton Garden Village featured as a central part of the spatial strategy proposed by the 2016 Draft Plan, and whilst significant concerns were raised through the consultation, support for the scheme was given a major boost in January 2017, when it was selected by Government as one of 14 nationally to receive funding and other support, with a view to supporting delivery. The scheme then received further funding from Government in 2017; and, throughout 2017, a range of work-streams were progressed to examine issues and options (e.g. in relation to capacity, masterplanning, infrastructure needs and phasing). The site borders two neighbouring authorities - Basildon and Thurrock - giving rise to Duty to Cooperate (DtC) considerations.
 - **West Horndon** - The option of developing a strategic extension to West Horndon featured in the appraisal of reasonable spatial strategy alternatives reported within the 2015 and 2016 Interim SA Reports. The scheme did not feature as part of the spatial strategy proposed by the 2016 Draft Plan; however, a scheme did feature as a central element of the 2013 Preferred Options consultation document (somewhat superseded, recognising that it pre-dated the emergence of Dunton Garden Suburb/Village proposals). SA work completed in 2015 and 2016 highlighted some potential benefits of expansion at West Horndon; however, the scheme is notable for the level of opposition from local residents. By way of further introduction, key matters to account for include -
 - There are DtC considerations, given that the southern boundary of West Horndon is the borough boundary with Thurrock, and given functional linkages with Basildon.
 - A strategic scheme might feasibly be delivered to the north west of the village, to the north east of the village or across both parcels of land.
 - There is the potential for expansion to impact ‘in-combination’ with: redevelopment of West Horndon Industrial Estate; and growth elsewhere along the A127, notably at Dunton Garden Village (also employment growth in the vicinity of M25 J29).

- **North of Brentwood** - The option of developing a strategic extension to the north of Brentwood featured in the appraisal of reasonable spatial strategy alternatives reported within the 2015 and 2016 Interim SA Reports. By way of introduction, key matters to account for include -
 - Proposals are not advanced, with land ownership being fragmented, and some parcels of land currently not being actively promoted for development.
 - Major road infrastructure upgrades would be required, recognising the imperative importance of not worsening traffic congestion and air quality within Brentwood Town Centre; however, there is uncertainty regarding what is achievable.
 - There is the potential for expansion to impact ‘in-combination’ with other potential extensions to the urban area, most notably the potential 510 homes on land at Officers Meadow, north of Shenfield (directly to the east); and the potential 200 home ‘Land at Doddinghurst Road’ scheme to the southeast of Pilgrims Hatch (directly to the west).

2.4.3 Two other strategic site options have been the focus of SA work in the past, but are now deemed to be ‘unreasonable’, given planning/sustainability considerations and also deliverability considerations. Specifically -

- Land to the East of Running Waters, Hutton - A very large area of land has been submitted; however, this parcel of land does not relate well to the existing urban edge, with no proposed scheme layout having been submitted by the site promoter. Furthermore, no information has been submitted to address the concerns raised through analysis presented within the 2015 and 2016 Interim SA Reports.
- Pilgrims Hatch - There is potentially a strategic opportunity to deliver targeted enhancements to community infrastructure; however, proposals are not advanced, and it is difficult to envisage a scheme, on the basis of sites currently available. Furthermore, as per north of Brentwood, there is uncertainty regarding precisely how necessary road infrastructure upgrades would be achieved.

2.4.4 Other strategic growth options have also been discussed, during meetings between AECOM and Officers, including: options involving strategic expansion to the west of Brentwood; the option of strategic expansion at Ingatestone; and options in the north of the Borough. However, all of these options were judged to have clear drawbacks (including in respect of delivery), such that they undoubtedly perform sequentially poorly as options. They are unreasonable, and indeed ‘non-starter’, options for the current Local Plan.

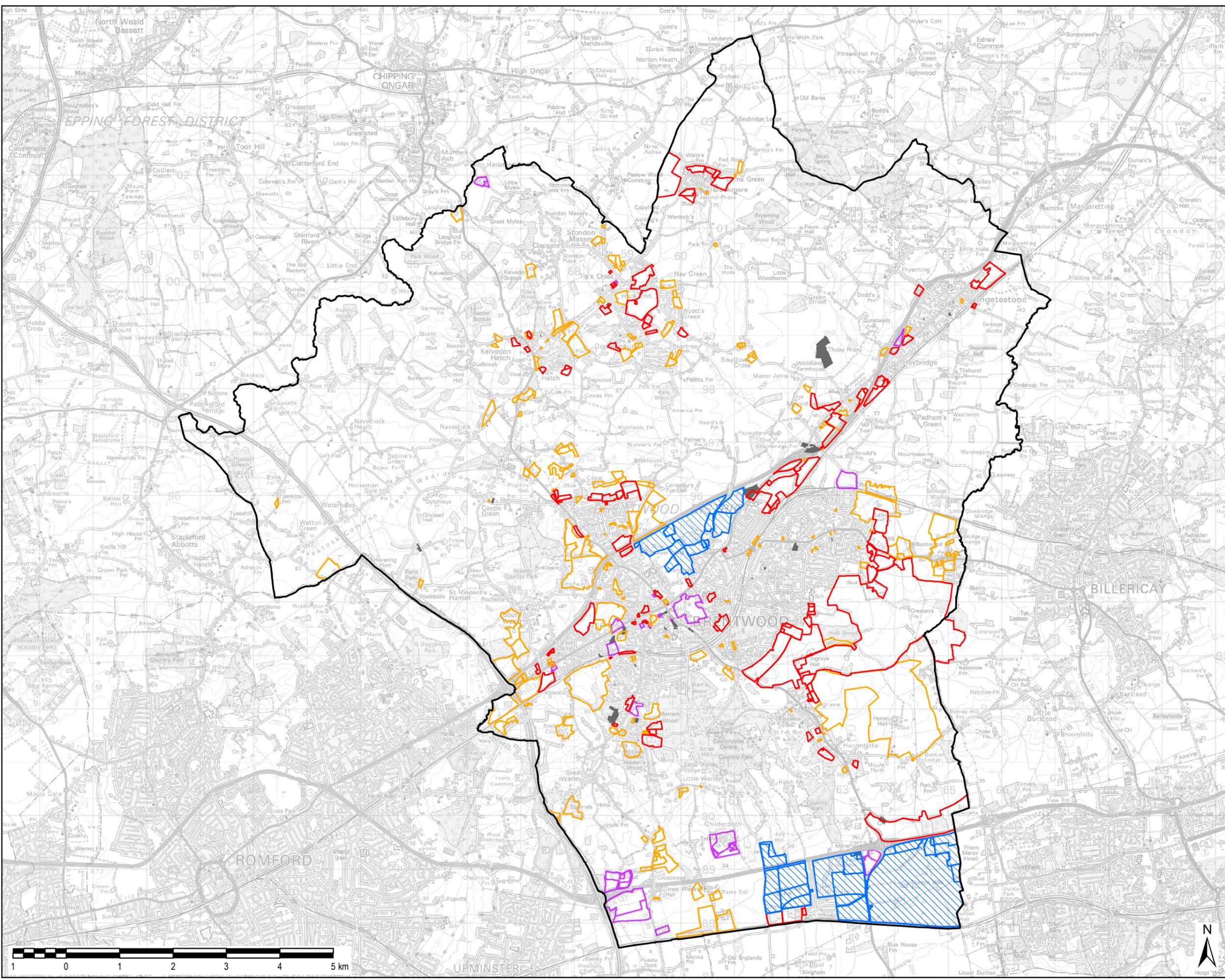
2.5 Smaller site options

2.5.1 In addition to the strategic site options, there is a need to give consideration to the large number of smaller site options that have been submitted to the Council.

2.5.2 A package of smaller site options formed part of the spatial strategy proposed by the 2016 Draft Plan; however, consultation responses received, and subsequent work (notably through Green Belt Review and the Council’s Housing and Employment Land Availability Assessment– HELAA), served to identify a need to re-examine the approach to small site allocations. There is also a strategic ‘driver’, in that the February 2017 Housing White Paper (“Fixing our Broken Housing Market”) advocated increased release of smaller sites.

2.5.3 The primary mechanism for examining small site options is through the Council’s HELAA; however, supplementary work was also reported within the 2016 Interim SA Report (see Appendix II), and that work will be updated within the forthcoming Interim SA Report.

2.5.4 **Figure 2.3** shows all ‘reasonable’ site options, both strategic and non-strategic. N.B. sites are identified as unreasonable, or ‘discounted’, where found to be unavailable or undeliverable through the HELAA, or located in an isolated location.



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LEGEND

- Brentwood Borough Boundary
- Strategic Site Option
- Site Option
- Discounted
- Non-Housing Option
- Commitment

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Purpose of Issue **DRAFT**

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Project Title **DRAFT LOCAL PLAN:
 PREFERRED SITE ALLOCATIONS**

Drawing Title **SITE OPTIONS**

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AECOM
 Midpoint
 Alençon Link, Basingstoke
 Hampshire, RG21 7PP
 Telephone (01256) 310200
 Fax (01256) 310201
 www.aecom.com

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2.6 Sub-area options

Introduction

2.6.1 Having discussed “top down” factors (housing quantum and broad distribution) and “bottom-up” factors (strategic and non-strategic site options), there is a need for one final discussion ahead of establishing reasonable alternatives.

2.6.2 Specifically, there is a need to consider each of District’s sub-areas in turn, examining the site options that exist, and the ways in which they might be delivered in combination.

Brentwood/Shenfield Urban Area

2.6.3 The 2016 Draft plan proposed allocation of 11 sites within the urban area (ten brownfield and one greenfield; 740 homes in total), and five urban extensions (one brownfield; 1,287 homes). In total, therefore, the proposal was to allocate sites to deliver c.2,030 homes.

2.6.4 Since the Draft Plan stage: four brownfield sites have been identified as unable to deliver homes (or a net increase in homes, with this being specifically the case for two sites that currently comprise sheltered accommodation housing) in the plan period;

2.6.5 found to be unavailable for development within the plan period; and closer examination of the four greenfield sites has found that, whilst all remain potentially suitable, there is a need to reduce the number of homes delivered.

2.6.6 However, work to examine site options - in particular through detailed Green Belt review - has also led to the identification of additional supply. Specifically, since the Draft plan stage, detailed work to examine site options has led to the identification of: the potential to deliver additional housing at four of the brownfield sites previously supported; six additional suitable brownfield sites; and four additional Green Belt sites.

2.6.7 The net effect, of work to examine site options in isolation, is a proposal to allocate smaller sites to deliver **c.2,685 homes**; an increase of c.750 homes relative to the Draft Plan stage (once account is taken of two recent planning permissions).

2.6.8 With regards to alternatives -

- Lower growth - whilst there is a need to consider lower growth options, it is difficult to conceptualise precisely what sites would, and would not, feature. It is worthwhile comparing the current proposed approach to the 2016 Draft Plan approach, and this comparison will be explored further within the forthcoming Interim SA Report; however, it is likely to be the case that ‘reasonable alternatives’ to the current proposed approach involve more marginal variation. There will be a need for further detailed work subsequent to the current consultation, ahead of the Regulation 19 publication stage.
- Higher growth - whilst there are concerns regarding the cumulative impacts of growth on the Brentwood/Shenfield urban area, including with regards to traffic and air quality, there is also something of an opportunity, given that this is the Borough’s main economic centre, which will see a significant boost in the near future with the arrival of Crossrail to Shenfield. Furthermore, a strategic growth opportunity exists, to the North of Brentwood, that - whilst being subject to significant constraints - could achieve a critical mass that enables strategic infrastructure delivery.

There is also the ‘wider picture’ to consider, namely the understanding that higher growth along the A12 corridor would reduce the pressure for growth along the A127 corridor. As such, as per the view in 2016, there is considered to be a clear argument for exploring a higher growth option involving a strategic ‘**North Brentwood**’ urban extension.

The A127 Corridor

- 2.6.9 The 2016 Draft plan proposed a 500 home redevelopment of West Horndon Industrial Estate, and a 2,500 home new community within the Green Belt - to the east of West Horndon / west of Basildon - in the form of Dunton Hills Garden Village.
- 2.6.10 Since the Draft Plan stage, closer examination of the West Horndon Industrial Estate site has led to identification of the opportunity to deliver an additional 80 homes, meaning 580 homes in total. With regards to **Dunton Hills Garden Village**, this scheme is still supported, and much detailed work has been completed and remains ongoing, with a view to developing a masterplan, but the assumption remains that c.2,500 homes are deliverable within the plan period. The total capacity is likely to be higher, perhaps 3,500 to 4,000 homes, and it may transpire that there is the potential to accelerate delivery within the plan period (i.e. deliver above 2,500 homes); however, this is subject to further detailed analysis.
- 2.6.11 In conclusion, work to examine site options in detail, since the Draft Plan stage, has not identified the need for a shift in strategy.
- 2.6.12 With regards to alternatives -
- Lower growth - whilst the redevelopment of the Industrial Estate is quite widely supported (recognising that there are opportunities elsewhere, nearby within the A127 corridor, to deliver major new employment sites that more than compensate), the Dunton Hills Garden Village proposal has its critics. In particular, Thurrock Council argue strongly that all open land within the corridor serves an important Green Belt function (as a gap between Basildon and London), and that the Local Plan should instead direct growth to the A12 corridor / main urban area to the north. As such, as per the view in 2016, there is considered to be a clear argument for exploring a lower growth option, or options, involving lower growth or **nil growth at Dunton Hills Garden Village**.
 - Other approaches to growth - as discussed within Section 2.5, there is also a potential strategic development opportunity at **West Horndon**. Key considerations are: A) development of the eastern parcel could well conflict with / act to foreclose the Dunton Hills Garden Village opportunity (given the importance of maintaining a Green Belt gap); and B) significant local opposition to the strategic expansion of West Horndon suggests a need to explore options that would involve a less intensive scheme, that is a scheme with lower density housing and/or large areas of land left open as green infrastructure. In conclusion, there is considered to be a clear argument for exploring options that would involve growth at West Horndon in place of Dunton Hills Garden Village, and the option of strategic expansion to the west of West Horndon in addition to the Garden Village.

Ingatestone and Mounnessing

- 2.6.13 The 2016 Draft plan proposed allocation of land for 128 homes across two Green Belt sites and two small urban brownfield sites. Since the Draft Plan stage -
- one of the brownfield sites has gained planning permission, whilst the other is now understood to be unavailable for redevelopment within the plan period;
 - both of the Green Belt sites have been identified as being suitable for delivering a greater number of homes; and
 - one additional Green Belt site has been identified as suitable for allocation.
- 2.6.14 The net effect, of work to examine site options in isolation, is a proposal to allocate smaller sites to deliver **218 homes**; an increase of 94 homes relative to the Draft Plan stage (once account is taken of the one planning permission for 16 homes).

2.6.15 With regards to alternatives -

- Lower growth - whilst there is a need to consider lower growth options, it is difficult to conceptualise precisely what sites would, and would not, feature. It is worthwhile comparing the current proposed approach to the 2016 Draft Plan approach, and this comparison will be explored further within the forthcoming Interim SA Report; however, it is likely to be the case that 'reasonable alternatives' to the current proposed approach involve more marginal variation. There will be a need for further detailed work subsequent to the current consultation, ahead of the Regulation 19 publication stage.
- Higher growth - there are considered to be limited strategic arguments for significantly higher growth, and Green Belt review work does not support the other development opportunities that exist and/or there are other sustainability concerns. As such, there is limited argument for examining higher growth options in detail. There will be the opportunity to review this position subsequent to the current consultation.

Ingrave and Herongate

2.6.16 The 2016 Draft plan did not propose allocation of any sites; and subsequent detailed work to examine site options has not led to the identification of any additional opportunities. As well as Green Belt, this area is relatively sensitive in landscape, biodiversity and heritage terms. Equally, there are considered to be limited strategic arguments in favour of allocation. As such, there is limited argument for examining higher growth options in detail. There will be the opportunity to review this position subsequent to the current consultation.

Northern villages

2.6.17 The 2016 Draft plan did not propose allocation of any sites; however, subsequent detailed work to examine site options - in particular through detailed Green Belt review - has led to the identification of several development opportunities. There is also a strategic context, in light of the 2017 Housing White Paper, which supports smaller sites and growth at villages, and "*expect(s) local planning authorities to identify opportunities for villages to thrive, especially where this would support services and help meet the need to provide homes for local people who currently find it hard to live where they grew up.*"

2.6.18 Specifically, Green Belt review has identified seven HELAA sites with development potential (several being adjacent), with a total capacity of **169 homes**. The most significant proposal involves delivery of 96 homes at two adjacent sites to the north of Blackmore.

2.6.19 With regards to alternatives -

- Lower growth - whilst there is a need to consider lower growth options, it is difficult to conceptualise precisely what sites would, and would not, feature. It is worthwhile comparing the current proposed approach to the 2016 Draft Plan approach, and this comparison will be explored further within the forthcoming Interim SA Report; however, it is likely to be the case that 'reasonable alternatives' to the current proposed approach involve more marginal variation. There will be a need for further detailed work subsequent to the current consultation, ahead of the Regulation 19 publication stage.
- Higher growth - there are considered to be limited strategic arguments for significantly higher growth, and Green Belt review work does not support the other development opportunities that exist and/or there are other sustainability concerns. As such, there is limited argument for examining higher growth options in detail. There will be the opportunity to review this position subsequent to the current consultation.

2.7 Establishing the reasonable alternatives

Introduction

- 2.7.1 In light of the three 'initial steps' discussed above (Sections 2.3 to 2.5) and the 'interim step' discussed within Section 2.6 (see Figure 6.1 for a summary of the step-wise approach), Officers and AECOM (working in collaboration) were able to establish reasonable spatial strategy alternatives - i.e. a series of alternative packages of site allocations - for appraisal.
- 2.7.2 When establishing the reasonable spatial strategy alternatives, there was firstly a need to consider which site allocations should be a 'constant' across all alternatives, and which should be a 'variable', i.e. allocated under certain options only.

Constants

- 2.7.3 As per the approach taken when arriving at reasonable alternatives in 2016 (as reported within the 2016 Interim SA Report), it was determined appropriate to treat the approach to 'non-strategic' sites as a constant. Specifically, it was determined appropriate to treat the approach to growth identified as suitable through site specific work - including detailed Green Belt review - as a constant. This approach is described within Section 2.6, above.
- 2.7.4 Whilst there are still important choices to be made - perhaps most notably regarding the approach to greenfield / Green Belt development at Brentwood/Shenfield and at the northern villages - at the current time it is difficult to envisage an alternative package of sites, and the option of nil greenfield / Green Belt urban extensions is considered to be unreasonable. There will be the opportunity to review this position subsequent to the current consultation, i.e. ahead of development reasonable alternatives for publication at the Regulation 19 stage.

Variables

- 2.7.5 As per the approach taken when arriving at reasonable alternatives in 2016 (as reported within the 2016 Interim SA Report), it was determined appropriate to treat the approach to 'strategic' sites as a variable. The variables / options to potentially reflect across the alternatives are shown in **Table 2.1**.

Table 2.1: Variables and potential options

Strategic site	Options (N.B. figures are 'ball park')
North Brentwood	<ul style="list-style-type: none"> • 2,500 homes • Nil homes
Dunton Hills Garden Village	<ul style="list-style-type: none"> • 2,500 homes • Nil homes
West Horndon West	<ul style="list-style-type: none"> • 1,200 homes • 600 homes • Nil homes
West Horndon East	<ul style="list-style-type: none"> • 1,000 homes • 500 homes • Nil homes

2.7.6 There are a large number of feasible permutations of these options; however, many of the permutations can be ruled out as unreasonable for one of the following reasons -

- Too few homes - there is a need to allocate sufficient land to deliver OAHN plus a contingency, or 'buffer', to account for the risk of one or more sites not delivering the anticipated number of homes within the plan period.
- West Horndon East - the assumption is that: A) West Horndon East would only ever be deemed suitable for allocation in addition to West Horndon West, reflecting the fact that it is a more constrained site, and also that its allocation could foreclose the option of a strategic scheme at Dunton Hills; and B) West Horndon East could not be allocated in addition to Dunton Garden Village.
- Too many homes - it is deemed unreasonable to examine options that would involve allocating land to deliver in excess of 500 dpa, recognising that a scenario whereby the Government standard OAHN methodology is adopted would result in Brentwood's OAHN increasing to 454 dpa (capped).

2.7.7 This list of variables, options and 'rules' led to the identification of the reasonable spatial strategy alternatives presented below - see **Table 2.2**.

Table 2.1: The reasonable spatial strategy alternatives

		Option 1	Option 2	Option 3	Option 4	Option 5	Option 6	Option 7	Option 8	Option 9	Option 10	
		West Horndon West and East	North Brentwood	Dunton Hills GV	North Brentwood plus West Horndon West (low)	Dunton Hills GV plus West Horndon West (low)	North Brentwood plus West Horndon West (low) and East (low)	North Brentwood plus West Horndon West	Dunton Hills GV plus West Horndon West	North Brentwood plus West Horndon West (low) and East	North Brentwood plus West Horndon West and East (low)	
Completions		527	527	527	527	527	527	527	527	527	527	
Commitments		825	825	825	825	825	825	825	825	825	825	
Forecast completions/commitments		250	250	250	250	250	250	250	250	250	250	
Windfall		507	507	507	507	507	507	507	507	507	507	
Allocations	Constants	Main urban area (brownfield)	1152	1152	1152	1152	1152	1152	1152	1152	1152	
		Main urban area (greenfield)	95	95	95	95	95	95	95	95	95	
		Main urban area Green Belt	1437	1437	1437	1437	1437	1437	1437	1437	1437	
		West Horndon urban	580	580	580	580	580	580	580	580	580	
		Ingatstone Green Belt	218	218	218	218	218	218	218	218	218	
		Northern villages Green Belt	169	169	169	169	169	169	169	169	169	
	Variables	North Brentwood		2500		2500		2500	2500		2500	2500
		West Horndon West	1200			600	600	600	1200	1200	600	1200
		West Horndon East	1000					500			1000	500
		Dunton Hills Garden Village			2500		2500			2500		
Total		7960	8260	8260	8860	8860	9360	9460	9460	9860	9960	
Total p.a.		398	413	413	443	443	468	473	473	493	498	
Total above OAHN		360	660	660	1260	1260	1760	1860	1860	2260	2360	
% over OAHN		5%	9%	9%	17%	17%	23%	24%	24%	30%	31%	

3 APPRAISAL OF THE REASONABLE ALTERNATIVES

3.1 Introduction

- 3.1.1 The aim of this chapter is to present summary appraisal findings in relation to the reasonable alternatives introduced above.
- 3.1.2 Summary appraisal findings are presented as a brief discussion under each of the sustainability topic headings that comprise the SA Framework (as established at the SA 'scoping' stage; see further explanation within Chapter 4 of the 2016 Interim SA Report). A final heading also presents a brief conclusion.
- 3.1.3 The forthcoming Interim SA Report will present detailed appraisal findings (see Appendix III of the 2016 Interim SA Report for an indication of the level of detail). N.B. the summary appraisal presented below are **subject to change**, ahead of the Interim SA Report being finalised for consultation.

3.2 Air quality

- 3.2.1 A focus of growth along the A127 corridor performs well, with options focusing growth at North Brentwood performing poorly given traffic congestion and two designated Air Quality Management Areas (AQMAs). There could be the potential to address issues through major road infrastructure upgrades; however, there is currently no certainty.
- 3.2.2 With regards to the approach to growth within the A127 corridor, there are arguments to suggest that West Horndon is the preferable location from a perspective of minimising traffic, with knock-on positive implications for air quality, including because a train station would be within easy walking distance. However, there may also be significant opportunities at Dunton Hills Garden Village - around minimising the need to travel, and supporting low carbon means of travel - including on the basis that the scheme has Garden Village status. Detailed work to explore options is ongoing.
- 3.2.3 In conclusion, **Options 1, 3, 5 and 8** perform notably well, in respect of air quality, as the need to develop North Brentwood would be avoided.

3.3 Biodiversity

- 3.3.1 Whilst it is difficult to draw strong conclusions, on balance options involving a focus to the North of Brentwood, and minimal growth along the A127 corridor, are judged to perform best. The A127 corridor is sensitive given proximity to the woodlands of Thorndon Park to the north, with small 'fingers' of ancient woodland stretching south of the A127. Also, the importance of the landscape in respect of maintaining ecological connectivity between Thorndon and the woodlands of Langdon, to the south, has been suggested.
- 3.3.2 However, there is considerable uncertainty given the possibility of strategic GI enhancements. Also, it could transpire that close inspection of the North Brentwood site - including examination of its strategic green infrastructure role within the wider landscape - shows it to be more constrained than is currently understood to be the case.
- 3.3.3 In conclusion, **Option 7** performs notably well, as North Brentwood and West Horndon West are seemingly relatively unconstrained sites, from a biodiversity perspective.

3.4 Climate change mitigation

- 3.4.1 There is a need to consider the performance of the alternatives both in terms of minimising per capita greenhouse gas (GHG) emissions from transport, and also per capita GHG emissions from the built environment.

- 3.4.2 With regards to transport emissions, it is difficult to differentiate the alternatives. Within the A127 corridor there is the potential to achieve new homes and jobs in close proximity, deliver a new bus route linking the A127 corridor to Brentwood, enhance walking/cycling infrastructure (including to train stations) and also increase the offer at West Horndon and Laindon local centres; however, equally, many homes at North of Brentwood would be within walking distance of Brentwood town centre, and the Crossrail station at Shenfield.
- 3.4.3 With regards to GHG emissions from the built environment, there is essentially a need to support large scale schemes where ambitious low carbon measures can be implemented, including decentralised low/renewable heat and/or power generation schemes (e.g. a biomass fuelled Combined Heat and Power system)
- 3.4.4 In conclusion, **Option 10** performs best as it would involve the greatest concentration of growth (i.e. a concentration of growth at both North Brentwood and West Horndon).

3.5 Communities and wellbeing

- 3.5.1 A primary consideration is access to community infrastructure (with capacity), both for new and existing residents, which in the Brentwood context is understood to mean supporting a large scale new scheme, which can deliver new strategic community infrastructure. Maximising growth within the A127 corridor would increase the likelihood of delivering a new secondary school, whilst a North Brentwood scheme could deliver targeted enhancements to community infrastructure to complement what is currently available across the urban area.
- 3.5.2 However, there are tensions in respect of growth to the North of Brentwood, and at West Horndon, as growth would be in the form of an urban extension, with direct impacts to local residents (e.g. in respect of amenity and traffic congestion, including during construction). Also, both schemes would be of a limited scale (2,000 to 2,500 homes) such that funding for infrastructure would be limited.
- 3.5.3 Furthermore, and in contrast to Dunton Hills Garden Village, neither scheme would qualify for national funding as a Garden Village, which could represent something of a missed opportunity. Government's 2017 Housing White Paper is strongly supportive of Garden Villages because of the potential to deliver community benefits over-and-above what can be achieved through urban extensions, with statements including
- "Provided they are supported by the necessary infrastructure, they are often more popular with local communities than piecemeal expansion of existing settlements."*
- "The Government... will work with... garden communities to ensure that development and infrastructure investment are as closely aligned as possible..."*
- "[The Government will] strengthen local representation and accountability, and increase opportunities for [garden] communities to benefit from land value capture."*
- 3.5.4 In conclusion, whilst there is an argument to suggest that Option 8 performs best as it would involve maximum growth within the A127 corridor, there are concerns regarding expansion at West Horndon, from a communities perspective, and so on balance **Option 3** - which would involve support for Dunton Hills Garden Village only - is judged to perform best.

3.6 Cultural heritage

- 3.6.1 The A127 corridor is relatively unconstrained from a historic environment perspective, with a primary consideration being adjacent Thorndon Hall Registered Park and Garden (Grade II* listed) and Thorndon Park Conservation Area, which primarily constrains West Horndon East (indeed, the designated land intersects the potential development area, to a small extent).

- 3.6.2 A single listed farmhouse does fall within centre of the Dunton Hills Garden Village site, which will inevitably be impacted through loss of its rural setting; however, means to mitigate impact are being explored, e.g. through sensitive integration of the listed into a local centre (such that residents would experience and appreciate the building, or through integration with green infrastructure stretching to the south east. The latter approach might enable a degree of connectivity with the two listed buildings at the edge of the site (one being Grade II St. Mary's Church, built in 1873 and now disused) and heritage assets beyond (including the Plotlands Museum, which forms part of the Langdon Centre, run by Essex Wildlife Trust).
- 3.6.3 North Brentwood is potentially more constrained, given the adjacent cluster of listed buildings, including a Grade II* listed church, which represents the small historic core of Shenfield (pre-train station. The possibility of increased traffic congestion impacting on the Brentwood Town Centre Conservation Area is another consideration.
- 3.6.4 In conclusion, **Options 3, 5 and 8** perform best as the need to develop North Brentwood and West Horndon East would be avoided.

3.7 Economy and employment

- 3.7.1 There is a need to support an approach to housing growth that in turn supports delivery of significant new employment land along one or both corridors, both of which are of potentially regional importance, given the proximity to London.
- 3.7.2 Under all options there is an assumption that a strategic cluster of employment land will be supported along the A127 corridor, with the focus being on a large 'Brentwood Enterprise Park' scheme adjacent to M25 junction 29. The only potential to directly support additional delivery of employment land would be at Dunton Hills Garden Village; and the effect could well be to strengthen the A127 corridor employment cluster, also recognising that the A127 corridor in Basildon Borough is already seen as an 'Enterprise Corridor'. With regards to North Brentwood, there would be merit to delivering new housing in close proximity to Brentwood Town Centre and Shenfield Crossrail Station.
- 3.7.3 In conclusion, **Option 3** performs best, as it would deliver new employment land along the A127 corridor. Options 5 and 8 might perform equally well, but there is perhaps a risk of traffic congestion impacting businesses along the corridor.

3.8 Flooding

- 3.8.1 It should be possible to avoid fluvial flood risk zones, and the worsening of flood risk offsite (through increased surface water run-off) under all options.

3.9 Housing

- 3.9.1 Higher growth options perform best as the effect could well be to deliver 'above OAHN' in practice (even once account is taken of the likelihood of one or more sites not delivering the anticipated number of homes in the plan period). This would mean that affordable housing needs are met more fully, and the effect could also be to reduce the risk of unmet needs arising at the sub-regional scale (recognising that whilst Brentwood is defined as a self-contained housing market area, there are functional links to surrounding housing market areas where there is inevitably some risk of unmet needs).
- 3.9.2 Deliverability of housing is another important consideration, and in this respect it is noted that little or no detailed work has been completed in respect of delivering a North Brentwood scheme, and that major road infrastructure upgrades would be required. Spatial distribution of housing is another consideration, with there being an argument to suggest that housing growth should be focused at the main urban area, from where needs arise; however, this is considered to be less important factor.

3.9.3 In conclusion, **Options 8, 9 and 10** are judged to perform best, and broadly on a par.

3.10 Landscape

3.10.1 There are no nationally important designated landscapes within the Borough; however, around 89% of the Borough is designated Green Belt, which is designated in order to perform a number of 'purposes', one of which is to maintain 'openness'.

3.10.2 The strategic importance of the A127 corridor as a landscape gap between London and Basildon, and in particular the importance of the gap between West Horndon and Basildon, has been highlighted by stakeholders, notably CPRE and Thurrock Council. However, work has been completed to ascertain how landscape impacts associated with Dunton Hills Garden Village could be mitigated and minimised, and West Horndon is a flat landscape that should lend itself to relatively effective screening. With regards to North Brentwood, this is not thought to be particularly high quality landscape; however, this large 'green wedge' extending into the urban area is valued locally. There might feasibly be the potential to enhance its green infrastructure role in the future.

3.10.3 In conclusion, **Option 1** is judged to perform best as it would involve minimal housing growth. Brentwood Borough, as a whole, is sensitive from a landscape perspective.

3.11 Soil

3.11.1 All options would lead to significant loss of agricultural land. It is not possible to differentiate between the alternatives any further, on the basis of the available data.

3.12 Water

3.12.1 Waste water treatment works at Doddinghurst and Ingatestone are at capacity, according to the Water Cycle Study; however, this does not have a bearing on the appraisal.

3.13 Appraisal conclusion

3.13.1 The appraisal serves to highlight that all options are associated with pros and cons, in respect of sustainability objectives. Option 3 is found to perform well in terms of the greatest number of objectives (air quality, communities, heritage, employment); however, there are certain draw-backs, including in respect of biodiversity, landscape and housing. There is a need for plan-makers to make a decision regarding how best to balance, or 'trade-off', competing objectives, and in turn decide which option best represents sustainable development overall.