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A **Special** meeting of the **Cabinet** will be held in the Committee Rooms, East Pallant House on **Monday 23 January 2023** at **9.30 am**

MEMBERS: Mrs E Lintill (Chairman), Mrs S Taylor (Vice-Chairman), Mr R Briscoe, Mr A Dignum, Mrs P Plant, Mr A Sutton and Mr P Wilding

SUPPLEMENT TO AGENDA

4 **Proposed Submission version of the Chichester Local Plan 2021 - 2039**
(Pages 1 - 267)

Appendices C and D.

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Sustainability Appraisal (SA) of the Chichester Local Plan

SA Report

January 2023

Quality information

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1 Introduction

1.1 Background

1.1.1 AECOM is commissioned to undertake Sustainability Appraisal (SA) in support of the emerging Chichester Local Plan. Once adopted, the Local Plan will establish a strategy for growth and change within the district up to 2039, allocate sites to deliver the strategy and establish the policies against which planning applications will be determined.

1.1.2 SA is a mechanism for considering and communicating the effects of an emerging plan, and alternatives, with a view to minimising adverse effects and maximising the positives. SA is required for Local Plans.[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.

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 appraises "the plan, and reasonable alternatives".[2] 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**:

- What has plan-making / SA involved up to this point?
  – including consideration of reasonable alternatives
- What are the SA findings at this stage?
  – i.e. in relation to the draft plan
- What are next steps?

1.3 This SA Report[3]

1.3.1 At this current stage of the plan-making process, the Council is consulting on the formal draft plan, known as the 'proposed submission' plan, under Regulation 19 of the Local Planning Regulations.

1.3.2 As such, this is the formal SA report. It presents all the legally required information, with a view to informing the consultation and plan finalisation. It supersedes previous reports.

Structure of this report

1.3.3 This report is structured according to the **three questions** above.

1.3.4 Before answering the first question, there is a need to further set the scene by introducing:

- the plan scope; and
- the SA scope.

Commenting on this report

1.3.5 This report can be referenced as part of comments on the plan and/or comments can be made specifically on any part of this report. Further guidance is provided below, including within the 'next steps' section.

[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). The Town and Country Planning (Local Planning) Regulations 2012 require that an SA Report is published for consultation alongside the 'Proposed Submission' plan document.
[2] Regulation 12(2) of the SEA Regulations
[3] See **Appendix I** for a 'checklist' explaining more precisely the regulatory basis for presenting certain information.

2 The plan scope

2.1 Introduction

2.1.1 The aim here is to briefly introduce: the plan area (drawing text from the plan document, and mindful that spatial issues and opportunities are discussed in more detail elsewhere in this report); the plan period; the legislative and policy context; and the objectives that are in place to guide plan preparation.

2.2 The plan area

2.2.1 Chichester District is located in West Sussex, stretching from the south coast to the southern border of Waverley (Surrey) and East Hampshire in the north; and from Havant (Hampshire) in the west to Arun and Horsham (both within West Sussex) in the east. Over two-thirds of the district lies within the South Downs National Park (SDNP). The local plan covers that part of the district falling *outside* of the SDNP.

2.2.2 There are 33 parish councils located within the local plan area, including six parishes which are also partly located within the SDNP. There local plan area is split into **two broad sub-areas**:

- Southern plan area – comprises land to the south of the SDNP. It includes Chichester and the A27 corridor (also known as the "east-west corridor") and the Manhood Peninsula.
- Northeast plan area – comprises land to the north of the SDNP.[4]

2.2.3 The cathedral city of Chichester (population estimated at 29,193 in 2021) is the main centre for higher order services, facilities and retail, as well as employment. The city is renowned for its historic environment (including its Roman walls) / heritage, as well as for a successful and rapidly growing university. There is considerable 'committed' growth, following the adopted local plan (2015), but options for further growth through the new local plan are fairly limited, as discussed below.

2.2.4 The plan area also has four other significant 'settlement hubs', all in the southern plan area:

- East-west corridor – Southbourne is located to the west of Chichester (population 6,820), and has links to the nearby towns of Havant and Emsworth; there is a train station, a secondary school, an employment area and a relatively modern leisure facility, although there is no direct access onto the A27, and community facilities are dispersed throughout the settlement, such that there is no clear centre. Tangmere is located to the east of Chichester (population ~3,158) and lacks rail connectivity, but there is direct access onto the A27, and good access to a range of employment. It currently lacks many of the services and facilities normally associated with a settlement of its size, but a committed urban extension is set to deliver significant new community infrastructure.
- Manhood Peninsula – Selsey has a population of around 10,668 and East Wittering / Bracklesham (the village of East Wittering expanded into Bracklesham Parish in the 20th Century) has a population of 4,899. Whilst both are coastal settlements, and strongly associated with the tourism industry, they are notably distinct in a range of respects. Both settlements are associated with significant recent and/or committed growth, but flood risk means that options for further growth through the new local plan are very limited, as discussed further below.

2.2.5 The A27 runs east-west through the plan area, connecting the area to Portsmouth to the west and Brighton to the east. There are also rail links along the south coast and to London from Chichester station. North-south transport links are comparatively poorer in quality, and transport connectivity in the northeast plan area is generally quite poor (Haslemere and Horsham are nearby towns, connected by minor roads).

2.2.6 The district is associated with a notably ageing population, with 27.7% of the population over the age of 65, compared to 18.5% nationally. By 2039, those of working age are expected to account for only half of Chichester District's total population. Ethnic minorities make up 7% of the total population of the district, which is lower than county (11.1%), regional (14.8%) and national (20.2%) averages.

[4] There is also a third plan sub-area, at the northern extent of the district; however, this is a very small area comprising the southern extent of Haslemere, with no significant growth opportunity. Land here is within Linchmere Parish.

2.2.7 The proportion of people in the district aged between 16 – 64 years with a level 4 qualification (degree level or above) is 45.6%, which is higher than the South East (45.1%) and national (43.5%) figures. There are three institutions in the plan area that offer further education for 16-18 year olds (all in the southern plan area), including Chichester College, which is the largest further education institution in West Sussex.

2.2.8 The employment rate of 16-64 year olds is lower than the national average of 74.8% at 71.3%, however the proportion of people in part time employment is above both South East and national averages. The majority of existing employment and business space is focused around Chichester City and the A27 corridor; and there is an identified need to support and diversify economic activity in the rural parts of the plan area, particularly on the Manhood Peninsula.

2.2.9 The district's horticultural industry is amongst the largest producer of salad crops in the country and supplies much of the South East region. Major growers have established large scale glasshouse sites, which are mainly concentrated on the Manhood Peninsula and along the East-West Corridor.

2.2.10 The visitor economy is also a significant employment sector, in light of the district's scenic beauty, beaches, heritage sites, arts and crafts, festivals, museums and galleries and resident organisations in the fields of film, photography and new media. Chichester Festival Theatre is key regional asset, and Goodwood is nationally renowned as a home for major events including horseracing and motor racing.

2.2.11 Chichester District has a rich and varied natural, historic and built environment, stretching from the lowland marsh and creeks associated with Chichester Harbour and Pagham Harbour, across the coastal plain to the SDNP, and the Weald further north. The Chichester Harbour Area of Outstanding Natural Beauty (AONB) is a key constraint to growth in the southern plan area, and in both plan areas there is a need to consider the setting of the SDNP.

2.2.12 International, national and local biodiversity designations constrain both plan areas, but this is particularly the case for the southern plan area, which is heavily constrained on account of Chichester Harbour, which is internationally designated, and particularly susceptible to water pollution (nutrient enrichment). The UK's largest exposed-coast Managed Realignment Scheme is at Medmerry, west of Selsey. Elsewhere, key green / blue infrastructure assets include woodlands, river corridors, former gravel pits and canals.

2.2.13 With regards to the rich historic environment, there are 27 conservation areas across the plan area, many listed buildings outside of conservation areas (including grade 1 and grade 2* listed), two registered parks and gardens and two archaeological designations, specifically nationally designated scheduled monuments (such as Fishbourne Roman Site) and a series of archaeological priority areas.

2.3 The plan period

2.3.1 The duration of the plan is 18 years from 1st April 2021 to 31st March 2039, in light of the NPPF:

"Strategic policies should look ahead over a minimum 15 year period from adoption, to anticipate and respond to long-term requirements and opportunities, such as those arising from major improvements in infrastructure. Where larger scale developments… form part of the strategy for the area, policies should be set within a vision that looks further ahead (at least 30 years)..."

2.3.2 A significant number of homes have already come forward since the start of the plan period, known as 'completions'. There are also many homes that are set to come forward at sites with planning permission, known as 'commitments'. In turn, a key aim of the plan is to deliver housing (and wider forms of development) over-and-above completions and commitments. There is also a need to consider *when* commitments are due to come forward, and seek to bolster the supply trajectory through the local plan, with a view to ensuring a steady trajectory over the entire course of the plan period (particularly the earlier years of the plan period, noting that NPPF paragraph 68 allows for some flexibility over the latter years).

2.4 Context to plan-making

2.4.1 The Government has signalled its intention to make significant changes to the English planning system through the Levelling Up and Regeneration Bill, and proposed changes to the National Planning Policy Framework (NPPF) were published for consultation in December 2022. However, the Government has also reiterated the importance of local authorities getting up to date local plans in place.

2.4.2 The Chichester Local Plan is therefore being prepared on the basis of the 2021 NPPF, the Localism Act 2011, the Planning and Compulsory Purchase Act 2004 and the Town and Country Planning Act 1990. The primary regulations guiding plan preparation are the Town and Country (Local Planning) Regulations 2012, and the local plan must also be prepared in accordance with Government's online Planning Practice Guidance (PPG). A primary consideration, central to the NPPF (paragraph 11) is a requirement to maintain an up-to-date local plan that meets objectively assessed development needs, as far as is consistent with sustainable development.

2.4.3 The plan is also being prepared taking account of objectives and policies established by various organisations at national and local levels, in accordance with the Duty to Cooperate established by the Localism Act 2011. For example, context is provided by policy/strategy established by the Coast to Capital Local Enterprise Partnership (LEP) and West Sussex County Council (most notably in relation to education, transport, minerals and waste). The local plan must also be developed in close collaboration with neighbouring authorities, but it is those authorities to the east that Chichester has been seen to share the closest links with over recent years. The Coastal West Sussex and Greater Brighton Planning Board published a Local Strategy Statement (LSS) in January 2016 (available here).

2.4.4 Finally, it is important to note that the plan will be prepared mindful of 'made' (i.e. adopted) and emerging Neighbourhood Development Plans (or simply 'neighbourhood plans'). There is very strong support for neighbourhood planning locally, with the adopted local plan having provided a housing target to 17 parishes, with a view to allocations then being made through neighbourhood plans. Neighbourhood plans must be in general conformity with the local plan, which means that made and emerging neighbourhood plans may need to be reviewed to bring them into line with the emerging plan; however, it is equally the case that made and emerging neighbourhood plans are a consideration in preparing the local plan.

2.5 Plan objectives

2.5.1 The plan document presents a concise list of objectives that have been drawn upon to guide plan preparation. The plan objectives are obviously important in and of themselves, but additionally are of key importance to the SA process, as a key legal requirement is to define, appraise and consult on reasonable alternatives taking account of *"the objectives and geographical scope of the plan."*

2.5.2 The plan objectives are as follows:

- **Climate change** - mitigate and adapt to climate change, contributing towards a reduction of greenhouse gas emissions in line with the Council's Climate Action Plan and the longer-term Government objective to achieve net zero by 2050.
- **Natural environment** - protect and enhance the natural environment, achieving net gains in biodiversity, nature recovery and tree cover, contributing towards improvements in the condition of designated sites including Chichester Harbour, Pagham Harbour and Medmerry Compensatory Habitat, and protecting wildlife and landscape character.
- **Housing** - deliver suitable, well designed, energy efficient and affordable housing to meet local needs, in safe and accessible neighbourhoods with mixed and balanced communities.
- **Employment and economy** - support the delivery of a strong, thriving and diverse economy, improving job opportunities for all skill levels while supporting a move to a diverse and low carbon economy.
- **Health and wellbeing** - encourage and enable healthy and active lifestyles for all, improving health indicators and life expectancy.
- **Design and heritage (ensuring beautiful places)** - create safe and beautiful places, protecting and enhancing the area's heritage and character with high standards of design, ensuring new development is well integrated and accessible to all.
- **Strategic infrastructure** - work with infrastructure providers to ensure the timely delivery of key infrastructure to support delivery of new development.

3 The SA scope

3.1 Introduction

3.1.1 The scope of the SA refers to the breadth of sustainability issues and objectives that are taken into account as part of the appraisal of the plan and reasonable alternatives. It does not refer to the scope of the plan (discussed above) or the scope of reasonable alternatives (discussed below, in Part 1).

3.1.2 The aim here is to introduce the reader to the *broad scope* of the SA, recognising the need for the SA scope to be flexible and adaptable, responding to the nature of the emerging plan and reasonable alternatives, and the latest evidence-base.

3.2 Consultation on the scope

3.2.1 The Strategic Environmental Assessment (SEA) Regulations 2004 require that: *"When deciding on the scope and level of detail of the information that must be included in the Environmental Report [i.e. the SA scope], the responsible authority shall consult the consultation bodies."* In England, the consultation bodies are the Environment Agency, Historic England and Natural England.[5] As such, these authorities were consulted on the SA scope in 2016 and then again in 2021.

3.2.2 The outcome was an SA 'framework' comprising **13 objectives**. The intention was that the SA framework should then be employed for the purposes of subsequent appraisal work (i.e. appraisal of the emerging plan and reasonable alternatives), ensuring that the appraisal is suitably focused and concise.

3.3 The SA framework

3.3.1 In 2022 it was considered appropriate to rationalise the SA framework slightly by placing the objectives under slightly broader topic headings in alphabetical order – see Table 3.1.

Table 3.1: The SA framework

Topic	Objective
Accessibility	• Provide access to services and facilities
Air / env quality	• Improve air quality
Biodiversity	• Protect and enhance biodiversity and contribute to nature recovery
Climate change adaptation	• Enable adaptation to climate change
Climate change mitigation	• Achieve zero net increase in greenhouse gas emissions
Communities and health	• Promote health and wellbeing
Economy and employment	• Support sustainable economic growth
Heritage	• Conserve and enhance heritage
Housing	• Meet local housing need
Landscape	• Enhance landscapes
Land, soils and resources	• Maximise efficient use of land and other natural resources
Transport	• Achieve a sustainable and integrated transport system
Water	• Protect water resources

[5] In-line with Article 6(3) of the SEA Directive, these bodies were selected because *"by reason of their specific environmental responsibilities,[they] are likely to be concerned by the environmental effects of implementing plans and programmes."*

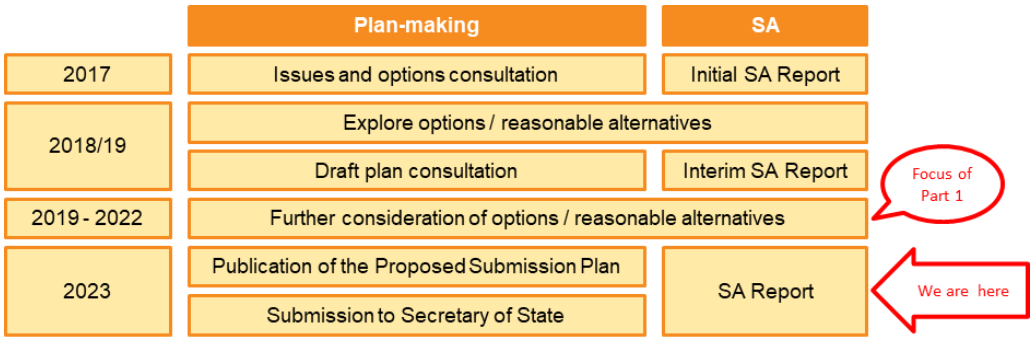
Part 1: What has plan-making / SA involved up to this stage?

4 Introduction to Part 1

Overview

4.1.1 Plan-making has been underway since 2016, with two formal consultations having been held prior to this current consultation (with SA reports published alongside) - see Figure 4.1.

Figure 4.1 High level overview of the plan-making / SA process



4.1.2 The focus here, within Part 1, is not to relay the entire 'backstory' of the plan-making /SA process, or to provide a comprehensive audit trail of decision-making over time. Rather, the aim is to report work undertaken to examine **reasonable alternatives** in 2022. Specifically, the aim is to:

- explain the reasons for selecting the alternatives dealt with - see **Section 5**
- present an appraisal of the reasonable alternatives - see **Section 6**
- explain the Council's reasons for selecting the preferred option - see **Section 7**

4.1.3 Presenting this information is in accordance with the requirement to present an appraisal of reasonable alternatives and "an outline of the reasons for selecting the alternatives dealt with" within the SA Report.

What about earlier stages of work?

4.1.4 Figure 4.1 provides a high-level overview, but additionally there have been numerous other key steps, including targeted consultations with key stakeholder organisations and numerous milestone meetings of elected Councillors. With regards to the latter, this has included meetings of the Cabinet (e.g. a key meeting was held in December 2019, informed by targeted SA work), all member briefings (e.g. a key meeting in July 2021 considered a 'Local Plan and Infrastructure Update') and a regular series of meetings of the Development Plans and Infrastructure Panel (DPIP, introduced here). In 2022 alone, AECOM presented to elected councillors on SA on three occasions.

4.1.5 It is difficult to concisely summarise the 'story' of the plan-making process over time, for a number of reasons. The plan has faced repeated obstacles to its advancement, and there has been a need to reconsider issues on several occasions, including due: the emergence of new issues / constraints to development, such as water neutrality in the north of the plan area; the emergence of new evidence, perhaps most notably in respect of infrastructure capacity and the potential to deliver upgrades; speculative planning applications gaining planning permission at appeal under the presumption in favour of sustainable development (due to the lack of a five year housing land supply);[6] changes to the national context (e.g. the 2019 update to the NPPF, and more recently changes to flood risk planning guidance); and changes to the local political context (following a local election in 2019).

4.1.6 Past work stages / evidence gathering is cited below as necessary, i.e. where it has informed the task of defining, appraising and consulting-upon reasonable alternatives. The overriding focus is on providing up-to-date information on the plan and reasonable alternatives that is policy-relevant at the current time.

[6] Speculative sites gaining planning permission at appeal has created a major challenge to local plan-making. In 2022 for example (including subsequent to the end of the 2021/22 monitoring year), several larger sites gained permission in the southern plan area despite not being allocated in the adopted plan, nor being emerging preferred allocations in the new local plan. Each such permission led to significant implications for spatial strategy, both at a settlement / parish scale and for the southern plan area as a whole, given a 'cap' on the number of homes that can be delivered within infrastructure capacity (discussed further below).

Reasonable alternatives in relation to what?

4.1.7 The legal requirement is to examine reasonable alternatives (RAs) taking into account the objectives of the plan (see Section 2). Following discussion of plan objectives with officers, it was determined appropriate to focus on the 'spatial strategy', i.e. providing for a supply of land, including by allocating sites and potentially broad areas (NPPF paragraph 68), to meet objectively assessed needs and wider plan objectives, as far as possible (i.e. as far as consistent with sustainable development, as per NPPF paragraph 11). Establishing a spatial strategy is clearly an overarching objective of the Local Plan.[7]

4.1.8 The decision was made to refer to the spatial strategy alternatives as '**growth scenarios**', and growth scenarios can also be thought of as essentially taking the form of alternative local plan key diagrams.

What about site options?

4.1.9 Whilst individual site options generate a high degree of interest, they are not RAs in the context of most local plans. Were a local plan setting out to deliver one site, then site options would be RAs, but that is rarely, if ever, the case. Rather, the objective of local plans is typically, or invariably, to deliver *a package* of sites to meet needs and wider plan objectives. In turn, the scope of RAs must reflect this key objective. Nonetheless, consideration is naturally given to the merits of site options as part of the process of establishing growth scenarios – see Sections 5.3 and 5.4.

Is the focus on housing sites?

4.1.10 Local Plans are tasked with meeting both housing and wider development needs. However, establishing a supply of land to meet housing needs is typically a matter of overriding importance. In turn, the discussion of reasonable growth scenarios presented below is 'housing-led', with stand-alone consideration to reasonable alternatives in respect of employment land supply and meeting accommodation needs of Traveller communities presented in **Appendix II** and **Appendix III**, respectively.

What about other aspects of the plan?

4.1.11 As well as establishing a spatial strategy, allocating sites etc., the local plan must also establish policy on thematic district-wide issues, as well as area and site-specific policies, to guide decision-making at the planning application stage. Broadly speaking, these are 'development management' (DM) policies. It is a challenge to establish DM policy alternatives that are genuinely reasonable.[7] Discussions were held between AECOM and CDC officers in respect of possibly DM policy alternatives for appraisal (and consultation), but ultimately it was determined to focus efforts on the appraisal of draft policies.

Structure of this part of the report

4.1.12 This remainder of this part of the report is structured as follows:

- **Section 5** – explains a process leading to growth scenarios (also see Appendices IV-V);
- **Section 6** – presents an appraisal of the growth scenarios; and
- **Section 7** – presents CDC officers' response to the appraisal.

Whose responsibility?

4.1.13 It is important to be clear that: selecting reasonable alternatives is the responsibility of the plan-maker (CDC), with AECOM acting in an advisory capacity; appraising the reasonable alternatives is the responsibility of AECOM; and deciding on the preferred approach is the responsibility of the plan-maker.

Commenting on this part of the report

4.1.14 Comments are welcomed on: the decision to focus primarily on 'growth scenarios' (this section); the growth scenarios selected, with reference to the process for defining these (Section 5); the appraisal of growth scenarios (Section 6); Officers' response to the appraisal (Section 7); and work to consider alternatives for employment land and the accommodation needs of Traveller communities (Appendices).

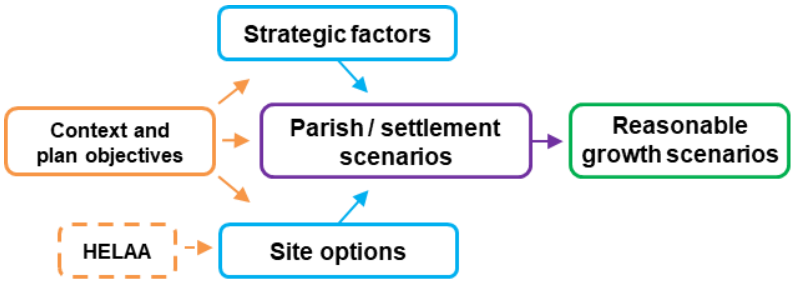
[7] It was also considered appropriate to focus on 'spatial strategy' given the potential to define "do something" alternatives that are meaningfully different, in that they will vary in respect of 'significant effects', as measured against the baseline. The Planning Practice Guidance is clear that SA "*should only focus on what is needed to assess the likely significant effects of the plan*".

5 Defining growth scenarios

5.1 Introduction

5.1.1 The aim here is to discuss the process that led to the definition of reasonable growth scenarios.

Figure 5.1: Establishing reasonable growth scenarios



Structure of this section

5.1.2 This section of the report is structured as follows:

- **Section 5.2** – explores strategic factors with a bearing on growth scenarios;
- **Section 5.3** – considers site options, which are the 'building blocks' for growth scenarios;
- **Section 5.4** – explores growth scenarios for individual parishes / settlements; and
- **Section 5.5** – draws upon the preceding sections to define reasonable growth scenarios.

A note on limitations

5.1.3 It is important to emphasise that this section does not aim to present an appraisal of reasonable alternatives. Rather, the aim is to describe the *process* that led to the definition of reasonable alternatives for appraisal. This amounts to a relatively early step in the plan-making process which, in turn, has a bearing on the extent of evidence gathering and analysis that is proportionate, also recalling the legal requirement to present an *"**outline** of the reasons for selecting alternatives…"* [emphasis added].

5.2 Strategic factors

Introduction

5.2.1 The aim of this section of the report is explore the strategic factors (issues and options) with a bearing on the definition of reasonable growth scenarios. Specifically, this section of the report explores:

- Quantum – how many new homes are needed (regardless of capacity to provide them)?
- Distribution – which broad areas within the plan area are more / less suited to growth, and what growth typologies are supported (e.g. the balance between strategic and non-strategic sites)?

Quantum

5.2.2 This section sets out the established Local Housing Need (LHN) figure for the district, before exploring arguments for the local plan providing for a quantum of growth either above or below LHN.

Background

5.2.3 A central tenet of plan-making is the need to **A)** establish housing needs; and then **B)** develop a policy response to those needs. This stems from NPPF para 11, and the Planning Practice Guidance (PPG):

*"Housing need is an unconstrained assessment of the number of homes needed in an area. **Assessing housing need is the first step in the process of deciding how many homes need to be planned for**. It should be undertaken separately from… establishing a housing requirement figure and preparing policies to address this such as site allocations."*

5.2.4 With regards to (A), the NPPF (paragraph 60) is clear that establishment of **LHN** should be informed by an *"assessment conducted using the **standard method**… unless exceptional circumstances justify an alternative approach which also reflects… demographic trends and market signals"* [emphasis added].

5.2.5 With regards to (B), many local authorities will respond to assessed LHN by providing for LHN in full or, in other words, setting a **housing requirement** that equates to LHN, and a **housing supply** through policies sufficient to deliver this housing requirement (at a suitable rate/trajectory over time, which typically necessitates putting in place a 'buffer' to mitigate against the risk of unforeseen delivery issues). However, under certain circumstances it can be appropriate to set a housing requirement that departs from LHN.

Chichester's LHN

5.2.6 A three-step standard method for calculating LHN was first published by the Government in 2017, and then a fourth step was added in 2020, although this is not relevant to Chichester.[8]

5.2.7 There have also been some notable changes to guidance in respect of the data that should be utilised as an input to the standard method, since the method was first introduced. Specifically, following a consultation in late 2018, the PPG was updated to require that the household growth projections used as an input to the method must be the 2014-based projections, rather than more recent projections. The PPG explains that the change was made in order to:[9] *"provide stability… ensure that historic under-delivery and declining affordability are reflected, and to be consistent with the Government's objective of significantly boosting the supply of homes."* Updates to the PPG in late 2020 confirmed this approach.

5.2.8 The standard method derived LHN for the plan area is currently **638 dwellings per annum** (dpa), or 11,484 in total over the plan period. It should also be noted that this is a 'capped' figure, meaning that step three of the (three step) standard method applies. Specifically, LHN is capped at 40% above the 'baseline' need figure derived at step 1 of the method. The uncapped figure is significantly higher, as discussed within the Housing and Economic Development Needs Assessment (HEDNA, 2022; see pg. 3).

Is it reasonable to explore setting the housing requirement at a figure below LHN?

5.2.9 Paragraph 11 of the NPPF states: *"… strategic policies should, as a minimum, provide for objectively assessed needs for housing and other uses, as well as any needs that cannot be met within neighbouring areas, **unless**: i. the application of policies in this Framework that protect areas or assets of particular importance provides a strong reason for restricting the overall scale, type or distribution of development in the plan area; or ii. any adverse impacts of doing so would significantly and demonstrably outweigh the benefits, when assessed against the policies in this Framework taken as a whole."* [emphasis added]

5.2.10 As a corollary to this, Paragraph 010 of the PPG on Housing and Economic Needs Assessment explains: *"… there will be circumstances where it is appropriate to consider [higher growth]… Circumstances where this may be appropriate include, but are not limited to situations where… an authority agreeing to take on **unmet need** from neighbouring authorities…"*

5.2.11 In the Chichester context, there is a clear basis for exploring growth scenarios that would involve setting the housing requirement at figure below LHN and, in turn, exporting unmet need to neighbouring areas. Key reasons are:

- Firstly, the southern plan area (i.e. the east west corridor and Manhood Peninsula) is highly constrained by capacity on the A27. Detailed discussions with National Highways and WSCC, over the course of 2019-2022, have led to a resolution that there is capacity for no more than 535 dpa in this area.
- Secondly, there are wide ranging planning reasons to suggest that the northeast plan area is not suited to providing for the resulting shortfall (638 – 535 = 103 dpa, or 1,854 in total), including relating to the rurality of the area and the fact that the entire area falls within a constrained water resource zone.
- Thirdly, whilst discussions with neighbourhood local authorities, under the Duty to Cooperate, have not served to identify any clear options for providing for unmet needs from Chichester (at reasonably suitable locations), there is the potential for unmet needs across the sub-region to be addressed through a forthcoming Local Strategy Statement (LSS) prepared by the Coastal West Sussex and Greater Brighton Planning Board (this will be version 3, with version 2 having been published in 2016). This is evidenced by the recently published Inspector's Report for the Worthing Local Plan (available here), which states:

[8] See gov.uk/guidance/housing-and-economic-development-needs-assessments.
[9] See paragraph 4 and 5 at: gov.uk/guidance/housing-and-economic-development-needs-assessments

Meeting housing needs, not only in Worthing but across the West Sussex Coastal authorities as a whole, is unarguably the most important and pressing of all strategic issues facing the Councils… As discussed later, the Plan falls some way short of meeting Worthing's full housing or employment needs. It is clear that this is a long-standing issue, and much time and effort has been dedicated to it through a range of formal Member and officer groups, including the West Sussex and Greater Brighton Strategic Planning Board and associated officer groups. This is just one example and there is substantial evidence of other formal and informal consultation, engagement and feedback from… nearby authorities…

… The Councils are collectively working on measures to help deliver housing and employment. They are also in the process of preparing an updated Local Strategic Statement (LSS). Version 3 of the document will explore options for meeting unmet needs across the area and will develop a long-term strategy for the sub-region for the period 2030-2050… While this may not be the solution that everybody wishes to see, it is nevertheless clear evidence of long-term and ongoing engagement between authorities on strategic matters."

Is it reasonable to explore higher growth scenarios?

5.2.12 As discussed above, the PPG on Housing and Economic Needs Assessment sets out reasons for providing for 'above LHN' through local plans, referring to situations where there are "*growth strategies for the area… (e.g. Housing Deals); strategic infrastructure improvements that are likely to drive an increase in [need]; or an authority agreeing to take on unmet need from neighbouring authorities…"* Also, affordable housing needs can serve as a reason for considering setting the housing requirement at a figure above LHN, with the PPG stating: "*An increase in the total housing figures included in the plan may need to be considered where it could help deliver the required number of affordable homes."*

5.2.13 However, in the Chichester context there is little or no argument for exploring scenarios whereby the housing requirement is set at a figure above LHN, given the issues discussed above at paragraph 5.2.11. Unmet housing needs are a widespread issue across the sub-region, but there is no realistic potential to provide for unmet housing needs within Chichester. At the time of the Preferred Approach consultation (2018/19), the proposal was to provide for both locally arising housing needs in full and a proportion of the unmet needs arising from the SDNP (41 dpa). Also, it is noted that the SA report published as part of the consultation considered scenarios – considered to be 'reasonable' at that point in time – that would see the housing requirement set at figures significantly above LHN (800 dpa and 1,000 dpa were tested). However, at the current time, in light of the latest available evidence, scenarios involving setting the housing requirement at a figure above LHN can be safely ruled out as unreasonable.

Conclusion on housing quanta options to examine further

5.2.14 The possibility of setting the housing requirement at LHN (638 dpa) cannot be ruled out as unreasonable at this stage in the process (of defining reasonable growth scenarios). This is mindful that the proposal at the time of the last formal consultation (Preferred Approach, 2018/19) was to provide for needs in full. The following statements from the preceding Issues and Options consultation are also important to recall:

"In July 2015, the Council adopted the Chichester Local Plan... However, due to uncertainty about delivery of future infrastructure (particularly improvements to the A27 Chichester Bypass and wastewater treatment capacity), the Plan was not able to meet the full identified housing need for the area. To address this, the Council committed to undertake a Local Plan Review within five years…."

5.2.15 Affordability is worsening, with median house prices in the district now 14 times the median earnings of those working in the district, and there is also a need to consider affordable and specialist housing needs.

5.2.16 However, clearly there are major obstacles to providing for LHN in full, as discussed. In turn, there is a clear need to also consider scenarios whereby the housing requirement is set at a figure below LHN (leading to unmet housing needs, in the context of a sub-region where this is already a significant issue).

5.2.17 The matter of precise quanta figures is returned to within Section 5.5, subsequent to consideration of broad distribution options, site options and sub-area scenarios.

N.B. under any reasonable growth scenario, there is also the question of whether, and the extent to which, total supply must exceed the requirement (such that there is a 'supply buffer'), with a view to ensuring that the housing requirement is provided for in practice, i.e. ensuring resilience to unforeseen delivery issues, which commonly arise at the planning application stage. This matter is discussed further in Section 5.5.

Broad distribution

Introduction

5.2.18 This is the second of two sections examining 'strategic factors'. The discussion is presented under a series of thematic headings, with distinctions drawn between the two plan sub-areas as appropriate.

A27 capacity

5.2.19 This warrants being discussed first, as arguably *the key issue* for the local plan. A27 capacity primarily leads to implications for total growth quantum in the southern plan area (because all locations rely to some degree on the A27), but there are also considerations for distribution of growth within the area.

5.2.20 There are six A27 junctions within the district, and the situation regarding capacity issues is complex. Both National Highways and the County Council have dedicated websites. The key **chronology** is as follows:

- The Issues and Options consultation document explained that A27 capacity was a key reason why the adopted local plan *"was not able to meet the full identified housing need for the area."* The accompanying SA report gave close consideration to the potential impacts of site options on the A27.
- A27 capacity was a key issue raised through the consultation, and a key factor informing subsequent spatial strategy / site selection, including at a series of elected member meetings over the course of 2017/2018. A key summary of the pros and cons of strategic growth locations was presented to members at a workshop in March 2018, which clearly highlighted that a barrier to growth on the Manhood Peninsula is that: *"Access [is] reliant on crossing or joining the A27."* This remains a key issue.
- The Preferred Approach consultation document proposed to meet needs in full (and provide for some unmet needs from the SDNP) and proposed a spatial strategy focused on the southern plan area, with just 4% of total housing growth for the plan period directed to the northeast plan area (see the table under Policy S4). This broad strategy aligned with the adopted local plan, which also directed 4% of housing to the northeast plan area (by way of context, the northeast plan area included 7% of population in 2011; see the figure under paragraph 3.5.2 of the Issues and Options consultation document).

  Policy S23 (Transport and accessibility) sought to rely on an extensive package of A27 junction upgrades, informed by a Transport Study (2018), which is available here. The Interim SA Report did not explore the option of a reduced focus on the southern plan area / increased focus on the northeast (i.e. the figure for "parish numbers" was held constant across all distribution scenarios); however, the appraisal again explored the merits of scenarios in terms of minimising traffic *"trying to cross the A27"* and also quantified the number of homes, under each scenario, in proximity to a train station.
- Through the consultation major concerns were raised regarding the costs and deliverability of the proposed package of junction upgrades, which triggered a need for further work. As an early step, formal consideration was given to revised housing distribution scenarios, with a new scenario tested that would see a major shift in focus to the northeast plan area, with all greenfield allocations in the southern plan area (as previously consulted-on) reduced to 100 homes each. This scenario was introduced in a report to DPIP in July 2019, and then appraisal findings were presented to the DPIP in October 2019.

  The October 2019 appraisal findings can be seen here (paragraph 4.6.9), and it is important to note that the appraisal raised concerns regarding transport and accessibility implications (albeit A27 concerns would be reduced). It is recognised that the scenario appraised represented something of an extreme shift in strategy, relative to the emerging preferred scenario. However, the report to members explained:

  "Nonetheless, the potential for this area to accommodate a more appropriate increase in the level of development compared to that included in the Preferred Approach Plan is under review and the findings of the update to the Housing and Economic Land Availability Assessment will inform consideration..."
- November 2020 is the next key date, when consideration was given to a 'revised distribution' by an all-member workshop and DPIP, as well as through a targeted consultation with key stakeholder organisations. The revised distribution involved fairly modest changes to the strategy previously consulted-on at the Preferred Approach stage, including a small additional focus the northeast plan area.
- Findings of the targeted consultation were then reported to DPIP in May 2021. It was made clear that the consultation had not served to highlight any "showstopper" issues necessitating a change in strategy (e.g. an increased focus of growth in the northeast plan area), but that further detailed work was ongoing, including transport assessment, which could have a major bearing on the approach ultimately taken.

- The Strategic Infrastructure Update presented to the 29 July 2021 All Member Session was a then key milestone. At this stage it was recognised that the previously proposed package of junction upgrades would not be achievable on the basis of developer funding alone, and hence deliverability was called into question, given an absence of external funding sources (as investigated by the council). A supporting Transport Study was also presented, which supported a scenario involving junction upgrades delivered according to their priority, with a focus on upgrades from east to west. The study also recommended weighting housing growth to the west of Chichester, i.e. in the direction of Portsmouth.

  Also provided to the All Member Session was the outcome of advice provided to CDC by both the Planning Inspectorate and the Planning Advisory Service (PAS). Both advice notes explained that evidencing and ultimately justifying setting the housing requirement below LHN necessitates reaching a 'high bar', and the PAS note goes as far as to suggest a need to demonstrate that 'no stone has been left unturned' in respect of identifying capacity to deliver new homes locally. In this light, the report to members recommended: *"Following the Inspector's advice, further considering the potential to deliver more development in parts of the plan area less constrained by these issues, including the northern part of the Plan area, to demonstrate all possible options have been exhausted."*

- In January 2022, as it became apparent that the only remaining option for reducing the impact on the A27 was to investigate delivering a lesser quantum of development through the local plan, the council held a further All Members Session. Officers set out the intention, in agreement with the highway authorities, to investigate delivery of 535 dpa in the southern plan area and, in turn, to explore higher growth in the northeast plan area. It was hoped that this would result in a lesser impact on the A27 and therefore a reduced mitigation package that would be affordable to be delivered as part of the local plan.

- Following on from this, discussions with National Highways progressed – over a period of many months, stretching well into 2022 – leading to agreement that they would work with CDC to support a phased approach to mitigation, with upgrades to the Fishbourne and Bognor roundabouts as a priority (Fishbourne junction improvements first and potentially improvements to Bognor Junction later in the plan period).[10] As this alone was considered to still result in a 'severe impact' it was also agreed that the plan needed to seek to secure other methods of reducing trip generation on the highway network.

5.2.21 On this basis, the proposal is to **A)** identify supply for 535 dpa in the southern plan area (with no supply buffer); **B)** safeguard land for upgrades to the Fishbourne and Bognor roundabouts; **C)** implement a 'monitor and manage' strategy to guide decision-making over the prioritisation of junction upgrades and sustainable transport schemes;[11] and **D)** ensure a focus on avoiding the need to travel and modal shift.

5.2.22 The wider context is that the A27 Chichester By-Pass major improvement scheme is included in the National Highways' Road Investment Strategy Pipeline for the period 2025-2030 (RIS3). However, at this stage, funding is not guaranteed and its inclusion or otherwise in the final RIS3 programme will be confirmed at a later date and is dependent on National Highways option development work.

5.2.23 In **summary**, capacity on the A27 is a major issue. Implications are as follows:

- Scenarios involving providing for *above* 535 dpa in the southern plan area are unreasonable. Indeed, the risks involved are such that there are arguments for exploring scenarios involving provision for *below* 535 dpa in the southern plan area. However, on the other hand, developer funding is needed to secure A27 junction upgrades (it is assumed, ahead of a decision on RIS3 funding).

- In turn, there is a need to consider high growth options for the northeast plan area in order to close the gap to housing needs, i.e. allow the housing requirement to be set as close as possible to LHN. This is despite major transport arguments against higher growth in the northeast plan area, as discussed below.

- There is also a need to consider the question of whether supply in the southern plan area should total precisely 535 dpa or 535 dpa plus a supply buffer (e.g. 10%). Supply buffers are standard practice, to account for unforeseen delivery issues at the planning application stage; however, this is something of a unique circumstance, due to the need to avoid any risk of delivery above 535 dpa in practice.

- There is a need to distribute housing growth across the southern plan area with a focus on: A) minimising the need to travel and supporting modal shift away from the private car; and B) avoiding A27 traffic issues as far as possible, which in practice means avoiding or minimising growth on the Manhood Peninsula (this is clear cut) and weighting growth to the west of Chichester (this is less certain).

[10] Upgrading Stockbridge and Whyke junctions is very challenging, as signalised crossroads with restricted turns would impact journeys to / from the Manhood Peninsula. A Stockbridge Link Road was proposed in 2018, but is no longer deliverable.
[11] A 'monitor and manage' strategy has the benefit (over-and-above 'predict and provide') of being able to respond to changing travel behaviours / patterns, and can help to ensure that 'sustainable transport' interventions are prioritised as far as possible.

Transport and accessibility (more widely)

5.2.24 As discussed above, there is a need to minimise A27 traffic as far as possible, and address the inherent transport and accessibility challenges associated with higher growth scenarios for the northeast plan area (which must inevitably come into consideration, as discussed). There is also a need to minimise per capita greenhouse gas emissions from transport in support of climate change mitigation / decarbonisation ambitions, and accessibility is a key 'communities and health' consideration.

5.2.25 A priority issue is distributing growth in-line with the **settlement hierarchy** and, in turn, ensuring a focus of growth at Chichester City. A second priority consideration is then supporting growth within easy walking distance of some or all of the **train stations** located along the wider A259 / railway corridor, namely at Fishbourne, Broadbridge, Nutbourne and Southbourne. Of these settlements, Southbourne is a higher order settlement, and also has the benefit of good connectivity to Havant and Portsmouth, to the west. Fishbourne obviously benefits from proximity to Chichester, but there are constraints to growth there.

5.2.26 Retaining a focus on the western part of the east-west corridor, **cycle connectivity** is a further strategic consideration. The A259 forms part of the National Cycle Network (Route 2); however, there is an identified need to upgrade the cycle infrastructure, if the route is to become an attractive option for longer trips. A consultation was recently held on an ambitious package of upgrades.

5.2.27 With regards to the eastern part of the east-west corridor, **Westhampnett** does not have rail connectivity, but is in close proximity to Chichester, and a committed strategic urban extension to Chichester will enhance links. It is under 3km cycle distance into Chichester city centre, and there is an existing good quality shared offroad cycle route into the city. There is also good access to nearby employment.

5.2.28 Tangmere, to the east, is then more distant from Chichester, but is a higher order settlement. There is also a committed strategic urban extension here, which limits arguments for further growth. The strategic urban extension is delivering significant new community infrastructure, to the benefit not only of the new community but also the existing community, with positive implications for minimising the need to travel. This serves to highlight a wider point around support for **strategic growth locations**, from a transport perspective (and the committed west of Chichester strategic urban extension is another good example).

5.2.29 Moving to the **Manhood Peninsula**, the transport arguments for limiting growth here have been explored over the course of the plan-making process, including the need to cross or join the problematic Stockbridge and Whyke A27 junctions. This is an issue for private car travel, but also for **bus connectivity**, with busses having to sit in queues of traffic (particularly during tourist season), given an absence of bus priority lanes. There is a need to support the vitality of Selsey and East Wittering as settlement hubs, with a view to maintaining services / facilities etc. This is notably from a perspective of minimising the need to travel, but also because there is a very significant older age structure here (33% of those living on the Manhood Peninsula are aged 65+). However, it is not possible to pinpoint any particular issues in these respects (recalling the thriving tourism sector) and there is significant recent and committed growth. There is also notably a proposed Selsey to Chichester cycle scheme, but distance is a clear barrier to connectivity.

5.2.30 At the northern extent of the Peninsula, **Hunston and North Mundham** are service villages that benefit from good cycling and walking connectivity to Chichester city centre via Chichester Ship Canal (under 3km). However, the option of higher growth here was explored in detail through the appraisal of alternative growth scenarios at the Preferred Approach stage (2018), and found to have limited merit from a transport and accessibility perspective, in comparison to scenarios with a greater focus on the east / west corridor.

5.2.31 Finally, with regards to the **northeast plan area**, the A27 is not an issue, but there are significant wider transport and accessibility considerations. Transport-related barriers to growth were considered through an appraisal of reasonable alternative growth scenarios in late 2019, as discussed above, and there was also a dedicated targeted consultation on growth scenarios for the northeast plan area in January 2022, which led to transport concerns being raised by neighbouring Waverley Borough and Horsham District.

5.2.32 Of the four service villages, it is Loxwood and (in particular) Wisborough Green that are best connected to a higher order settlement (Billinghurst and Horsham), with the other villages more distant and connected by minor roads. However, across the area as a whole there is undoubtedly limited potential to travel by walking / cycling or public transport in comparison to the southern plan area (and the east-west corridor in particular). It is important to recall that there are no settlement hubs in this area.

5.2.33 Section 5.4 (Appendix V) further considers the varying transport / accessibility merits of the four parishes, and there is also discussion of strategic growth options, which tend to have merit in transport terms.

Nutrient neutrality and water neutrality

5.2.34 These are two distinct considerations, but warrant being discussed alongside one another. This is because, taken together, they form the second most significant factor with a bearing on the development of reasonable growth scenarios, including in respect of A) the question of how much growth can be delivered in the northeast plan area; B) the question of whether there is a need to consider 'below 535 dpa' scenarios in the southern plan area (also the question of whether a supply buffer is appropriate); and C) the question of how to distribute growth *within* each of the two areas (in particular the southern area).

Box 5.1: Nutrient neutrality in the southern plan area

Water pollution in the form of nutrient enrichment is a significant issue for the Chichester Harbour SSSI, which is also subject to a range of international designations (SPA, SAC and Ramsar). This is a major constraint to growth to the north, west and southwest of Chichester City.[12] There could also be an issue at Pagham Harbour (to the east of Selsey), with ongoing work led by Natural England set to report in 2023.

The Chichester Harbour SSSI constraint is explained at: www.chichester.gov.uk/nutrientneutrality. In summary, poor water quality is impacting habitats along the length of the Solent, including Chichester Harbour. Specifically, nutrient (nitrate) enrichment leads to the issue of eutrophication. The majority of nutrient inputs are from agriculture, but a significant proportion are from the built environment, and wastewater in particular. Issues are potentially particularly acute for Chichester Harbour, where recent work has found the majority of the SSSI to be in 'unfavourable declining' condition (in comparison, Langstone Harbour is mostly in 'favourable' condition).

As such, Natural England requires that any new development within a wastewater treatment catchment area that ultimately feeds into the Solent must demonstrate nutrient neutrality either through its own means or through contributions to an agreed nutrient mitigation scheme, for the lifetime of the development.

There are three key implications for spatial strategy / growth scenarios.

Firstly, an immediate implication is that there is clear support for growth to the east of Chichester and on the Manhood Peninsula,[13] where there is not currently a requirement for nutrient neutrality.

Secondly, there are arguments for supporting growth locations / schemes with good potential to achieve nutrient neutrality. However, it is difficult to draw strong implications for growth scenarios, beyond the need to direct growth to locations with strong development viability, as far as possible.

Thirdly, there is a need to consider variation in wastewater treatment capacity, and the potential for timely upgrades to accommodate growth / increased wastewater. This is a key issue, which has been considered in detail, through a Water Quality Assessment (2018) and discussions with Southern Water and the Environment Agency, with a Statement of Common Ground (SoCG) agreed in November 2021, and then detailed comments received through the targeted consultation in early 2022. The situation is complex, but considerations include:

- Apuldram treatment works – serves Chichester and Fishbourne, and is the most constrained. The issue is not the environmental capacity of the receiving water course to receive treated water ("dry weather flow (DWF) permits"), but rather groundwater infiltration of sewers leading to 'storm spills'. Work is ongoing to attempt to resolve this issue. However, currently, any significant new development must demonstrate no net increased flows, or connect to the new Chichester to Tangmere pipeline.
- Thornham and Bosham treatment works – serve the A259 corridor west of Fishbourne. Southern Water's response to the January 2022 targeted consultation identified limited capacity to accept further flows, and there is uncertainty regarding the potential to upgrade capacity, because both treatment works are currently using best available technology (BAT) for nutrients removal, such that alternative solutions would need to be found to cater for any growth beyond the current capacity (*"not a showstopper to development, but may require phasing to allow time to plan the necessary investment…"*). A September 2022 update in respect of Thornham found there to be less capacity than previously thought, such that Thornham is more constrained.

[12] Strategic developments around Chichester city connect to Tangmere, via the new Chichester to Tangmere pipeline, so are arguably less constrained than the western part of the east-west corridor (i.e. the catchments of Bosham and Thornham treatment works, as well as Apuldram). The Apuldram Position Statement also limits additional flows to that treatment works.
[13] Parts of the Manhood Peninsula are affected, where surface water drains to Chichester Harbour.

Box 5.2: Water neutrality in the northeast plan area

Groundwater abstraction from Pulborough (in Horsham District) is impacting on designated wetland and riverine habitats along the Arun Valley. This is a primary source of water within the Sussex North Water Resource Zone (WRZ), which covers the northeast plan area as well as a wider area.

Natural England issued a Position Statement in September 2021, advising that all new developments within the WRZ must demonstrate water neutrality via a combination of water efficiency and offsetting, and that this advice is likely to stand until a strategic solution is found, which is not likely to be before 2030.

This led to major issues for determining planning applications and preparing the local plan, and has required the joint affected planning authorities to produce a Mitigation Strategy, now endorsed by Natural England, to enable new development through local plans to demonstrate water neutrality.

A joint Mitigation Strategy was agreed in December 2022 (see www.chichester.gov.uk/waterresources). However, it is important to be clear that there is more work to be done, to identify and design offsetting schemes, before the Strategy can be implemented. Planning permissions for development identified in local plans will not be able to be granted until any necessary offsetting measures have been identified and secured.

The Mitigation Strategy assumes 20,000 homes across the WRZ over the plan period (2021 – 2039), and assumes that all development will achieve the highest standards of water efficiency. It also assumes that the water company (Southern Water) will undertake prescribed steps to reduce the need for abstraction.

On the basis of these assumptions, Natural England agrees that offsetting schemes – once secured – should be sufficient to ensure that growth across the WRZ will not increase water demand for water (as measured against baseline demand as set out in Southern Water's 2019 Water Resource Management Plan).

In arriving at a figure of 20,000 homes across the WRZ, the Mitigation Strategy assumes 1,796 homes in the Chichester northeast plan area (an assumption based on the Housing and Economic Land Availability Assessment, HELAA). This immediately serves to indicate that there is no potential to deliver the high growth target figure of 1,854 homes that is discussed above as the (minimum) level of growth that would be necessary in the northeast plan area, were the local plan housing requirement to be set at LHN.

There is no mechanism for revisiting the Mitigation Strategy with an assumed higher growth strategy for the Chichester northeast plan area (e.g. 2,000 homes), and commensurately lower growth elsewhere (Crawley, Horsham and/or the SDNP). Also, it is immediately apparent that it would be very challenging to justify restricting growth in Crawley or Horsham to allow for a high growth in the Chichester northeast plan area, which is relatively poorly suited to a high growth strategy in wide-ranging respects, as a relatively rural area.

Similarly, there are reasons to suggest that a suitably precautionary approach would involve considering fewer than 1,796 homes (e.g. by 5% or 10%), given the inherent uncertainties underpinning the Mitigation Strategy. As part of this, there is a need to be mindful that other authorities within the WRZ will be likely be delivering growth in parts of their plan areas that are more 'sustainable' (in wide ranging respects) than the Chichester northeast plan area, and there is currently no certainty regarding the levels of growth in those areas.

In summary, water neutrality has implications for growth quantum in the northeast plan area. With regards to distribution of growth, it is difficult to draw strong implications for growth scenarios (as per nutrient neutrality).

Flood risk

5.2.35 This is another issue that has been associated with a shifting policy context and evidence base, over the course of the plan-making process, which has led to significant challenges. A Level 1 Strategic Flood Risk Assessment (SFRA) was only made available late in 2022 (a draft version in October) and a Level 2 SFRA (examining specific sites) several weeks after that. The delay was due to a multitude of factors, but primarily delays in gaining Environment Agency technical approval in relation to key modelling outputs, combined with having to respond to changing national policy guidance. Further updates to the SFRA are still required in order to comply with additional changes which have been made to national guidance, but these updates are unlikely to change the overall assessment of flood risk.

5.2.36 The 2022 SFRA provides key evidence to inform the consideration of growth scenarios for the two settlement hubs on the Manhood Peninsula. For **East Wittering / Bracklesham**, the situation is quite clear cut, as the SFRA maps show extensive tidal flood risk under climate change scenarios, affecting all the sites reasonably in contention for allocation (discussed further below). Also, sites here have recently gained permission at appeal, reducing any argument for supporting further growth through the local plan.

5.2.37 The situation is less clear cut for **Selsey**. There is an area of slightly raised land to the north of the settlement that is not affected by flood risk; however, under climate change scenarios the SFRA (2022) shows that the only road in and out of Selsey (the B2145) is severely affected by tidal flood risk. This new evidence has had a significant bearing on the consideration of reasonable growth scenarios:

- The proposal at the Preferred Approach Stage (2018), as well as at subsequent stages up to and including the targeted consultation held in January 2022, was for an allocation at Selsey for ~250 homes. There is, realistically, only one site in contention for allocation at Selsey (see discussion in Appendix V).
- Views changed over the course of 2022, given flood risk concerns combined with reduced need for new allocation in the southern plan area (due to sites gaining planning permission at appeal) and increased concerns regarding A27 junction capacity. An allocation at Selsey was seen as a reasonable option to explore (through appraisal of reasonable growth scenarios); however, by December 2022 the decision was reached that growth scenarios involving an allocation at Selsey could be ruled out as unreasonable.

5.2.38 Matters in respect of flood risk constraining growth at East Wittering / Bracklesham and Selsey are discussed further below, in Section 5.4 (Appendix V).

5.2.39 Other flood risk issues discussed within the SFRA are of less strategic significance, but one matter for consideration here is groundwater flood risk, which is a constraint across much of the east-west corridor (see Appendix G of the Level 1 SFRA). Understanding is that this is typically an issue that can be addressed at the development management stage, but it is a consideration for plan-making nonetheless.

Landscape

5.2.40 There is a need to consider the setting of both the SDNP and the Chichester Harbour AONB. Also, there is a need to consider variation in landscape sensitivity more widely, as understood from the Chichester Landscape Capacity Study (2019), which is available at: www.chichester.gov.uk/localplanevidence.

5.2.41 The **SDNP** boundary constrains the entire northern edge of the southern plan area. However, this is the dip slope, and most of the settlements that come into consideration as potential locations for growth are located some way distant from the SDNP boundary and/or the A27 is an intervening barrier to growth.

5.2.42 There are clearly SDNP sensitivities to consider, e.g. the village of West Ashling to the west of Chichester (notably close to the A27 corridor) and Goodwood House (grade 1 listed house and parklands) to the east (also Halnaker Hill at the eastern edge of the area). However, there are no 'headline' specific areas of SDNP sensitivity across the area (focusing on areas reasonably in contention for growth).

5.2.43 In the northeast plan area, Wisborough Green is closest to the SDNP (also the Mens Special Area of Conservation (SAC), which falls within the SDNP and is associated with a sensitive bat population known to forage across a wide area). However, visual and footpath/bridleway links to the SDNP are limited. In contrast, the other villages in the area are all associated with important footpath/bridleway routes associated with the River Arun corridor and/or linking to open access common land / woodlands.

5.2.44 The **Chichester Harbour AONB** is a key constraint along the A259 corridor to the west of Chichester, which is the key road corridor along which settlements are located. Specifically, all land to the south of the road falls within the AONB, such that it is a key constraint to growth. Also, the AONB constrains the western extent of the Manhood Peninsula, specifically land to the west of the A286, although this only significantly constrains two service villages, namely Birdham and West Wittering.

5.2.45 With regards to the **Landscape Study (2019)**, the available summary maps serve to highlight some important broad trends across the southern plan area, including relatively limited sensitivity / high capacity at certain locations that do come into consideration for growth, including the Southbourne area and southeast of Chichester. For the northeast plan area, the summary map from the Landscape Study serves to highlight that landscape is a widespread constraint to growth, although this is least so the case at Ifold.

Emerging designations

5.2.46 The Preferred Approach consultation document proposed two new strategic spatial designations within the southern plan area: strategic wildlife corridors and landscape gaps. Whilst not yet examined and formally designated, the evidence-base in support of the emerging designations is strong.

5.2.47 With regards to **strategic wildlife corridors**, the Preferred Approach consultation document explained that work began in 2013, and a detailed evidence based methodology for identifying corridors was presented in a background paper. A further technical consultation on amendments was then held in 2021.

5.2.48 Undertaking this work, leading to the designation of strategic wildlife corridors, is considered a proactive step ahead of a Local Nature Recovery Strategy (LNRS) for the area (e.g. West Sussex), which is a requirement under the Environment Act 2021, with a view to supporting a national Nature Recovery Network. A key aim is to functionally link the South Downs National Park and Chichester Harbour AONB.

5.2.49 With regards to **landscape gaps**, the nature of settlement growth along the A259 corridor west of Chichester clearly serves to indicate the need to take a long term approach to managing gaps. An initial study of some but not all areas that may have potential for the introduction of gaps was completed in 2019 proposing five gaps along this corridor (also one north of Chichester and one to the southeast). The study was not comprehensive and other areas for potential gaps may be considered in due course as part of the process of preparing the committed Site Allocation Plan and/or neighbourhood plans.

Parish allocations

5.2.50 In practice, another key factor influencing the development of reasonable growth scenarios is the need to strike a balance between: A) allocations and broad locations in line with NPPF paragraph 68; and B) 'parish allocations', i.e. assigning housing delivery numbers to parishes, on the assumption that the relevant parish council will bring forward a neighbourhood plan that formally allocates sites (recalling that it is only once sites have been allocated that they are demonstrably 'deliverable' to the extent that they can count towards five year housing land supply, in line with NPPF paragraph 74).

5.2.51 There are three broad considerations:

- Firstly, there is a need to consider the appropriate balance between 'local plan' and 'parish' allocations. On the one hand, there is very strong national and local political support for neighbourhood planning, and many parish councils are highly motivated and well prepared to progress a neighbourhood plan, building upon recent experience following the adopted local plan (which provided a housing target to 17 parishes). However, on the other hand, there is a need to be aware that neighbourhood plans may take time to prepare, and may have some degree of delivery risk, at least in terms of timing. Also, by increasing the delegation of supply to neighbourhood plans leads to decreased potential to appraise the merits of *the local plan* with certainty, because there is naturally a lack of certainty regarding the sites that will ultimately be allocated by subsequent neighbourhood plans.
- Secondly, there is a need to account for variation in the capacity and willingness of parish councils to prepare a neighbourhood plan. This has been a focus of discussion over the years, but there is now considered to be quite good understanding across the whole plan area. Another question, which has been a focus of discussion over the years, is whether any given parish should, as a rule, be assigned either a local plan or a parish allocation or, alternatively, whether there should be scope for both.
- Thirdly, there is a need to be clear that assigning parish allocations is inherently challenging. There is often a need to assign a number to a parish on the basis of assumed sites that would ultimately be allocated; however, in practice, there can be no certainty that the assumed sites will actually be allocated.

5.2.52 A DPIP meeting held on 10 April 2018 notably discussed two options, in respect of the number of homes to be delivered through parish allocations: A) 2,200 homes; and B) 1,200 homes.

Speculative planning permissions

5.2.53 As has already been discussed, in practice a major influence on the process of preparing growth scenarios / deciding on a preferred spatial strategy was 'shifting sands' regarding committed supply from sites with planning permission. This was a particular issue for the southern plan area in 2022, with seven sites gaining planning permission at appeal (due to the lack of a five year housing land supply) for a total of 465 homes (also, further sites are currently the subject of ongoing appeals).

5.2.54 The implication was a need to reduce supply from allocations and parish allocations, with a view to ensuring that total supply would not lead to the agreed 535 dpa 'cap' being breached. Also, and in turn, there were implications for spatial strategy, e.g. considerations around road and wastewater infrastructure capacity, and more general questions around the appropriate level of growth for settlements. Specific issues that arose are discussed further in Section 5.4 (Appendix V).

Regulation 18 consultation

5.2.55 Another practical consideration, when preparing reasonable growth scenarios, relates to the degree to which it is appropriate to depart from the strategy previously formally consulted-upon under Regulation 18 in 2018 (albeit there have been subsequent targeted consultations with key stakeholder organisations).

5.2.56 In respect of parish allocations, the reality is that a number of parish councils began the process of preparing a neighbourhood plan on the basis of the number assigned to the parish by the Preferred Approach consultation document, such that a significantly changed number leads to issues.

5.2.57 There is also the question of a new settlement, with the possibility having been ruled out as unreasonable at the Preferred Approach stage (see paragraph 4.4.3 of the Interim SA Report; albeit the possibility was given some further consideration internally through appraisal work in October 2019, as discussed above). Allocation of a new settlement would almost certainly necessitate a further consultation under the Regulation 18 stage and, in turn, there would be a significant delay to the plan-making process. There is a clear argument for avoiding delays as far as possible, given ongoing issues locally in respect of an out-of-date local plan / lack of a five year housing land supply. As long as this situation persists, the district will be at risk of speculative planning applications (i.e. applications for sites not allocated through a local or neighbourhood plan) gaining planning permission at appeal.

Conclusion on broad distribution issues / options

5.2.58 This section has sought to:

- Expand on reasons why there is a 535 dpa supply 'cap' for the southeast plan area (also arguments for considering lower growth scenarios, and arguments against identifying a supply buffer).
- Present arguments against a high growth strategy for the northeast plan area (which would be necessary to enable the local plan housing requirement to be set at LHN), including water neutrality.
- Identify headline factors with a bearing on distribution and site selection within both plan areas, including:
  - The settlement hierarchy and, more generally, a need to direct growth to the most accessible and best-connected locations, including villages with train stations and good public / active transport options.
  - A27 junction capacity issues / upgrade potential, which serves as an argument against a focus of growth on the Manhood Peninsula, and potentially weighting growth to the west of Chichester.
  - Nutrient neutrality, which is a major constraint to the west of Chichester (albeit somewhat a matter of timing / phasing, i.e. to allow for wastewater treatment upgrades) and a viability consideration.
  - Flood risk, which is a key constraint to growth at the two settlement hubs on the Manhood Peninsula.
  - Landscape capacity and two emerging designations (strategic wildlife corridors and landscape gaps; although it is important to be clear that the local plan is not aiming to designate landscape gaps, but instead this will be left to the Site Allocations Plan and/or neighbourhood plans).
- Discuss the need for a balanced strategy, including a mix between local plan and parish allocations and, in respect of the former, the importance of a mix of sites in terms of size / type and geographic location, e.g. there is a need to recognise the merits of larger strategic sites in terms of wide ranging objectives.[14]
- Explore practical considerations that have had, and still have, a bearing on reasonable growth scenarios, including liaising with parish councils in respect of parish allocations, accounting for speculative planning applications gaining permission at appeal and the need to progress the local plan to the publication / submission stage as soon as possible (rather than returning to the Regulation 18 stage, if possible).

5.2.59 This section has not sought to provide a comprehensive picture of the strategic spatial factors with a bearing on the development of reasonable growth scenarios, with many other issues (including settlement / parish specific and specific to particular locations around settlement edges) explored in Section 5.4 (or more specifically, its supporting appendix). For example:

- In the northeast plan area, there is a need to account for the wide-ranging variation between the four parishes in terms of environmental and historic environment constraints and also levels of local community infrastructure. Proximity to the Mens SAC is one key constraint to reiterate.

[14] The adopted West Chichester allocation is a case in point, with the 1,600 home scheme now coming forward alongside a new local centre, employment land, a primary school, a country park, strategic road upgrades and more.

- Across the east-west corridor (within the southern plan area) there are notable broad spatial trends in terms of historic environment sensitivity, e.g. with limited constraint along parts of the A259 corridor west of Chichester, particularly in the vicinity of the rail stations, where development is largely 20th century.
- Across the southern plan area as a whole, there is widespread constraint (over-and-above the matter of nutrient neutrality) in terms of proximity and functional links to internationally designated biodiversity sites (SPAs and SACs; N.B. matters are explored through a stand-alone Habitats Regulations Assessment, HRA). Also, best and most versatile (BMV) agricultural land, including extensive land that is of grade 1 quality, is a widespread constraint, particularly across the east-west corridor.

5.3 Site options

5.3.1 The CDC-led Housing and Economic Land Availability Assessment (HELAA, 2021) is the starting point for considering the merits of individual site options. The HELAA, including a series of settlement-specific maps and site-specific proformas, is available at: www.chichester.gov.uk/helaa.

5.3.2 The two figures below are taken from the HELAA, and present an overview of site options within each of the two broad plan sub areas (the northeast plan area and the southern plan area). Site options are categorised according to whether they are discounted or judged 'developable' (i.e. available, achievable, potentially suitable for allocation and likely to come forward in the plan period).

N.B. the figures are now somewhat out of date, in that some sites have gained planning permission since the time of the HELAA. For example, the West Chichester strategic urban extension, which is shown as a site allocation, now partially has planning permission (Phase 1 of 2) and is under construction.

5.3.3 The HELAA identifies 193 non-committed developable sites (the green sites in the figures below), of which the great majority are available for housing or a mix of uses (with a modest number available for employment). The HELAA records a total combined capacity of non-committed developable sites that is far in excess of what is required under any reasonably foreseeable scenario.

5.3.4 In addition to the HELAA, other workstreams have been ongoing to examine the merits of individual site options, led by CDC officers, including discussions with site promoters. Also, as a supplementary input to the process (of arriving at reasonable growth scenarios), AECOM ran GIS analysis of all site options (e.g. distance to a listed building, percentage intersect BMV agricultural land). The outcomes of this analysis are presented in **Appendix IV** (N.B. this is a relatively minor input to the overall process).

Figure 5.2: All site options in the southern plan area (from the HELAA, 2021)

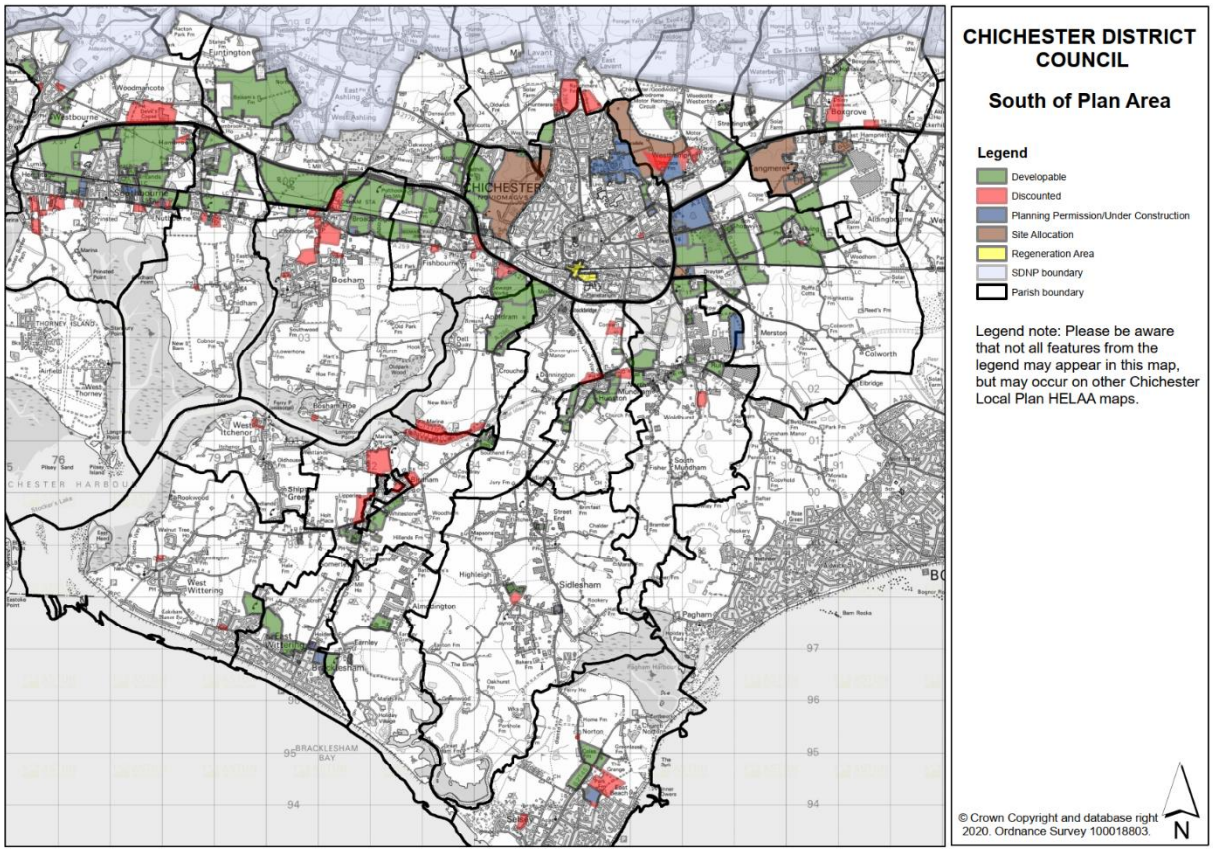
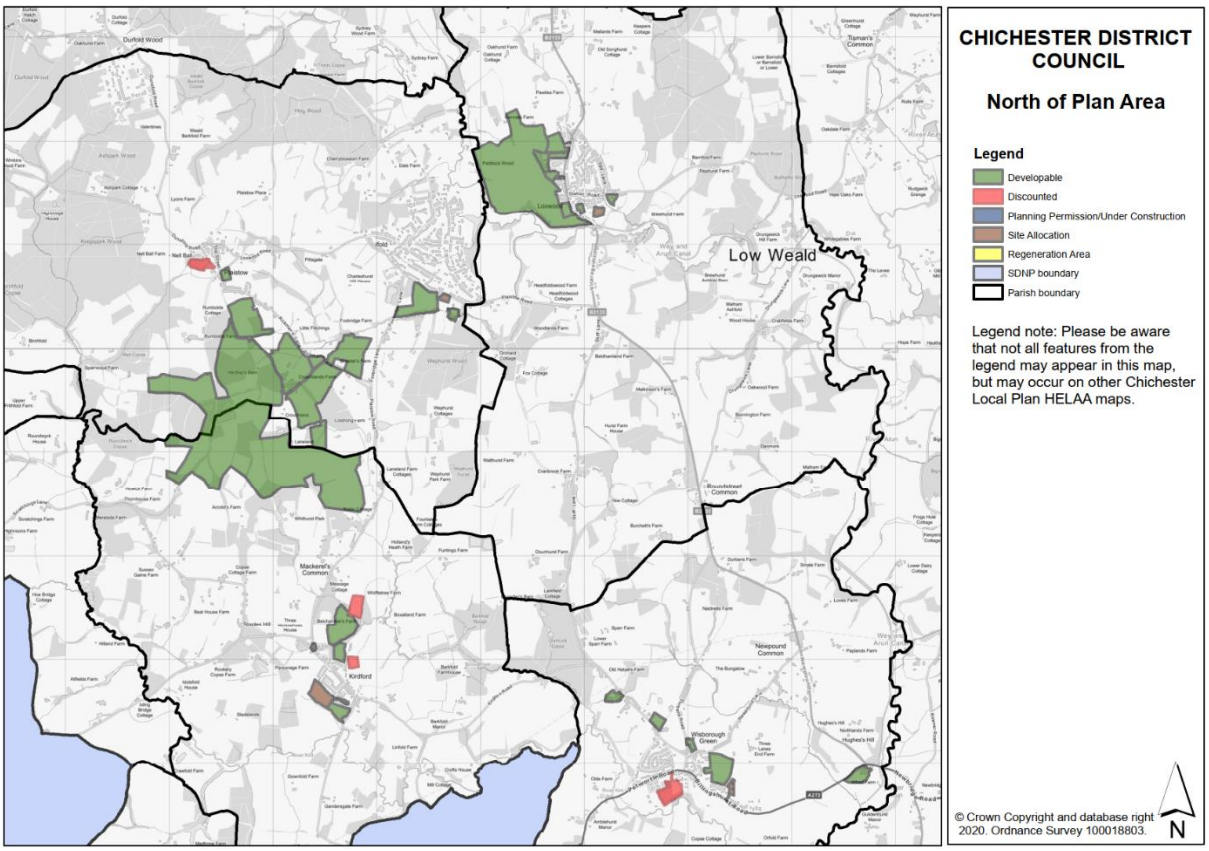


Figure 5.3: All site options in the northeast plan area (from the HELAA, 2021)



5.4 Parish / settlement scenarios

Introduction

5.4.1 Discussion has so far focused on A) 'top down' considerations of housing quantum and broad distribution issues and options; and B) 'bottom-up' consideration of site options. The next step is to consider each of the parishes / settlements within the (whole) plan area in turn, exploring reasonable growth scenarios (in the form of one or more allocations or a parish allocation). Detailed analysis is presented in **Appendix V**.

Two plan areas

5.4.2 The context to site selection / consideration of reasonable growth scenarios is very different across the two plan areas, namely the southern plan area and the northeast plan area. In the former there is limited 'room for manoeuvre', given the 535 dpa cap on total growth, whilst in the latter there is a clear need to explore a wide range of growth quantum scenarios. As such, the two plan areas are considered in turn.

Methodology

5.4.3 **Appendix V** considers each parish in turn. For each parish consideration is given to reasonable alternative approaches that might be taken to growth, either through one or more local plan allocation or a parish allocation (there is also a third option, namely a broad location, and the possibility of assigning a single parish both a local plan allocation and a parish allocation cannot be ruled out).

5.4.4 The ultimate aim is to reach a conclusion on parish / settlement scenarios that reasonably need to be taken forward to Section 5.5, where parish / settlement scenarios are combined in order to arrive at final district-wide reasonable growth scenarios. The aim is *not* to present a formal appraisal of reasonable alternatives, nor to discuss all feasible options to the same level of detail. Rather, the aim is to explore those options judged to be a more 'marginal', i.e. where the question of whether or not to take the option forward is finely balanced, mindful of site-specific, settlement-specific and broad strategic considerations. This approach is taken mindful of the legal requirement, which is to explain reasons for arriving at reasonable alternatives in "outline" terms (and mindful that site options are not reasonable alternatives).

Southern plan area

5.4.5 The discussion in **Appendix V** leads to a conclusion that:

- For nine parishes (N.B. the focus is only on those parishes that include a settlement hub or service village) there is judged to be only one reasonable growth scenario. Equally, there is only one reasonable growth scenario involving an expansion of Chichester City into a surrounding parish.[15]
- For five parishes there are two reasonable growth scenarios to progress to Section 5.5, namely Southbourne, Chidham and Hambrook, Westhampnett, Hunston and North Mundham (two parishes that warrant being considered together, as the service villages are very closely linked) and Birdham.[16]

5.4.6 There are several points to note:

- All figures in the table below relate to supply over-and-above completions (new homes that have been delivered since the start of the plan period) and commitments (new homes with a planning permission or an existing allocation that can be safely carried forward into the new local plan). With regards to commitments, it is important to note that the figures reflect understanding as of December 2022.[17]
- As discussed, there has been, and still remains, some uncertainty regarding Selsey. However, on balance, the view is that there is only one reasonable scenario, which is no allocation / no growth over-and-above completions and commitments), including given latest understanding of flood risk.
- The distinction between local plan vs. parish allocations is explained in Section 5.5.
- Figures are rounded to the nearest 50.

Table 5.1: Summary of the parish / settlement scenarios for the southern plan area (with constants greyed-out)

Parish / settlement			Parish / settlement scenarios (N.B. over-and-above completions and commitments)
Chichester Parish			One scenario: 450 homes
Chichester urban extension (Oving Parish)			One scenario: 700 homes
Settlement hubs		Tangmere	One scenario: 0 homes
		Southbourne	**Two scenarios**: 1,050 or 1,500 homes
		East Wittering and Bracklesham	One scenario: 0 homes
		Selsey	One scenario: 0 homes
Service villages	West	Fishbourne	One scenario: 50 homes
		Bosham (Broadbridge)	One scenario: 250 homes
		Chidham and Hambrook	**Two scenarios**: 150 or 250 homes
		Westbourne	One scenario: 50 homes
	East	Westhampnett	**Two scenarios**: 0 or 250
		Boxgrove	One scenario: 50 homes
	South	Hunston and North Mundham	**Two scenarios**: 0 or 50 homes
		Birdham	**Two scenarios**: 0 or 50 homes
Total homes (over-and-above completions and commitments)		**Minimum**	**2,650 homes**
		Maximum	**3,550 homes**

[15] One reasonable growth scenario does not mean that there is no choice, but only that there is less strategic choice than is the case for the other areas or, in other words, the choice at those parishes / settlements assigned one reasonable growth scenario is considered to be less 'marginal'. There is a pragmatic need to minimise the number of 'variables' progressed to Section 5.5.
[16] Two reasonable growth scenarios does not mean that there are no other scenarios that warrant consideration, but only that these are the key scenarios judged to warrant being progressed to Section 5.5. For each of the variable parishes / settlements, there is a pragmatic need to keep the number of scenarios to a minimum (see further discussion in Section 5.5).
[17] An alternative approach would be to use 31st March 2022 as the cut-off date, which is the end of the 2021 / 2022 monitoring year. Using cut off dates aligned with monitoring years has the benefit of avoiding the issue of trying to prepare a local plan on the basis of 'shifting sands'. However, in the case of the Chichester southern plan area, there is a clear need to take account of the very latest understanding of commitments, given the critical importance of not breaching the 535 dpa growth quantum 'cap'.

Northeast plan area

5.4.7 The discussion in Appendix V leads to a conclusion that there are three reasonable growth scenarios for each of the four parishes if the option of a new settlement at Crouchlands Farm is to be ruled out as unreasonable. The assumption under most of these scenarios is that there would be parish allocations, with formal allocations then made through subsequent neighbourhood plans. However, under the 'highest' growth scenario for Loxwood, there would be a clear argument for a local plan allocation.

5.4.8 With regards to the option of a new settlement at Crouchlands Farm, there is a strong argument to suggest that this option is unreasonable, such that it should not be taken forward to Section 5.5. However, on balance, it is considered reasonable and appropriate to take the option forward for further consideration. The implication is that there is a fourth scenario for Plaistow and Ifold Parish, involving ~600 homes.

5.4.9 In turn, an arguable maximum reasonable growth scenario for the northeast plan area (in terms of new homes over-and-above completions and commitments) involves ~2,250 homes from allocation (i.e. over-and-above completions and commitments, as well as a windfall assumption). However, there is clear potential to argue that growth of this scale is in fact unreasonable, including due to the water neutrality issue. As discussed above, the agreed Mitigation Strategy assumes ~1,800 homes in total. This matter is discussed further below, in Section 5.5.

Table 5.2: Summary of the parish scenarios for the northeast plan area

Parish	Parish scenarios (N.B. over-and-above completions and commitments)		
	Lower growth	Higher growth	Highest growth
Kirdford	50	150	300
Loxwood*	75	450	1,050
Plaistow and Ifold**	25	150	175
Wisborough Green	50	75	125
Total homes (over-and-above completions and commitments)	**200**	**825**	**1,650**

* the assumption under the 'higher' and 'highest' growth scenarios for Loxwood is that there would be a strategic extension to the west of the village. The strategic extension might be in the region of 400 homes or 1,000 homes plus, under both scenarios, it is assumed that a package of smaller sites for around 50 homes would be allocated.

** Additionally, there is a need to consider the option of a new settlement at Crouchlands Farm. The site is being actively promoted for around 600 homes plus land for a new primary school, but there is also a separate / parallel proposal for a Whole Farm Plan without housing (22/01735/FULEIA). The Whole Farm Plan proposes commercial and high welfare, low impact and low intensity farming activity, the gradual development of a rural enterprise centre, a rural food and retail centre, equestrian centre, and glamping site.

5.5 Reasonable growth scenarios

Introduction

5.5.1 Having gone through a process (see Figure 5.1) involving consideration of strategic factors (Section 5.2), site options (Section 5.3) and parish/settlement scenarios (Section 5.4), the final task is to draw matters together in order to arrive at reasonable district-wide growth scenarios for appraisal and consultation.

N.B. to reiterate, the aim is to discharge a central requirement of the SA process, as understood from Regulation 12(2) of the SEA Regulations, which is to appraise and consult upon "reasonable alternatives".

5.5.2 In theory, the ideal is to identify a single set of reasonable growth scenarios for the plan / whole plan area, with a view to ensuring a single, mutually exclusive set of choices. However, in the case of the Chichester Local Plan, there is a clear argument for defining, appraising and consulting-upon **two sets** of reasonable alternative growths scenarios, namely one set for the southern plan area and one for the northeast plan area. This is a practical necessity, given the number of variable parishes / settlements and scenarios identified in Section 5.4. Also, in practice the two plan areas are distant from one another (~25km, separated by the SDNP), such that there is limited functional interaction between the two areas (albeit there is still some crucial interaction, most notably in terms of providing for housing needs).

5.5.3 In practice, for each of the two plan areas, the task of defining reasonable growth scenarios involves considering ways of combining the **parish / settlement scenarios** introduced above, also mindful that additional supply will come from **completions** (new homes that have been delivered since the start of the plan period), **commitments** (new homes with a planning permission or an existing allocation that can be safely carried forward into the new local plan) and **windfall** (sites that can be anticipated to come forward despite not having an allocation in the local plan, or a neighbourhood plan, because they are otherwise in accordance with policy, typically within settlement boundaries).

South plan area

5.5.4 The conclusion above (Table 5.1) is that five parishes should be explored further 'variables', and that, in each case, there are two scenarios to explore. There are a very large number of potential combinations of these scenarios, hence a pragmatic need to minimise the number of variables.

5.5.5 Specifically, the decision was taken to treat four parishes - Chidham and Hambrook, Birdham and Hunston / North Mundham – as a single variable, and to assume just two growth scenarios: 1) lower growth across all four parishes (150 homes); or 2) higher growth across all four parishes (350 homes).

5.5.6 This led to three variables, each associated with two scenarios. There are eight potential combinations of these scenarios, i.e. there is a shortlist of eight reasonable growth scenarios for the south plan area.

5.5.7 However, as a final step, it was considered appropriate to rule out the highest growth scenario (i.e. the scenario involving higher growth across all three variables). This is because it would involve a total supply of 569 dpa, i.e. there would be a 6% supply buffer over-and-above the 535 'cap'. This is an unreasonably large supply buffer, as it would lead to a risk that more than 535 dpa homes are delivered in practice.

5.5.8 In conclusion, therefore, there are **seven reasonable growth scenarios**, which are shown in Table 5.4.

5.5.9 Final points to note are as follows:

- There is invariably a need to make simplifying assumptions in order to arrive at a manageable number of scenarios, given the aim of arriving at scenarios that reflect the objectives of the plan (such that they are essentially in the form of alternative key diagrams). A key motto is that "*the phrase all reasonable alternatives does not equate to all conceivable alternatives,*[18] and there is clear precedent on the need for proportionality, in respect of the task of arriving at reasonable alternatives.
- It is important to reiterate that the 'new supply' is homes over-and-above completions and commitments.
- The distinction between local plan vs. parish allocations is explained by the asterisks (*).
- 'New supply' figures are rounded to the nearest 50.

[18] See https://www.aylesburyvaledc.gov.uk/sites/default/files/AVALP%20LP%20Report.pdf#page=43

Table 5.4: The RA growth scenarios for the south (constants greyed-out; higher growth parish scenarios in red)

Supply component / Scenario				1	2	3	4	5	6	7
Completions				658	658	658	658	658	658	658
Commitments (Dec 2022)[19]				5476	5476	5476	5476	5476	5476	5476
Windfall				595	595	595	595	595	595	595
New supply	Chichester		Parish****	450	450	450	450	450	450	450
			Extension into Oving Parish*	700	700	700	700	700	700	700
	Settlement hubs		Southbourne*	1050	1050	1050	1050	**1500**	**1500**	**1500**
			Selsey	0	0	0	0	0	0	0
			Tangmere	0	0	0	0	0	0	0
			East Wittering & Bracklesham	0	0	0	0	0	0	0
	Service villages	East	Westhampnett*	0	0	**250**	**250**	0	0	**250**
			Boxgrove**	50	50	50	50	50	50	50
		West	Fishbourne**	50	50	50	50	50	50	50
			Bosham (Broadbridge)*	250	250	250	250	250	250	250
			Chidham and Hambrook**	150	**250**	150	**250**	150	**250**	150
			Westbourne**	50	50	50	50	50	50	50
		South	Hunston and North Mundham**	0	**50**	0	**50**	0	**50**	0
			Birdham**	0	**50**	0	**50**	0	**50**	0
Total				**9,479**	**9,679**	**9,729**	**9929**	**9,929**	**10,129**	**10,179**
Per annum				**527**	**538**	**541**	**552**	**552**	**563**	**566**
% under/over 535***				**-2%**	**1%**	**1%**	**3%**	**3%**	**5%**	**6%**

* local plan allocation

** parish allocation

*** broad location for development[20]

**** both a local plan allocation and a parish allocation[21]

***** the amber shading aims to highlight a more significant departure from the 535 dpa target figure / 'cap'.

[19] This figure reflects an assumption that all commitments at sites involving four or fewer homes (193 homes in total) are within the southern plan area. In practice the number will be lower, as a modest number will be in the northeast plan area.
[20] Southbourne is a broad location for development (see NPPF paragraph 68) with an allocation to be made either through a subsequent neighbourhood plan prepared by the parish council or a site allocations plan prepared by CDC.
[21] Southern Gateway is an allocation for 180 homes, plus there is a parish allocation of 270 homes.

Northeast plan area

5.5.10 The conclusion of Section 5.4 is that there are three reasonable growth scenarios for each of the four parishes *if* the option of a new settlement at Crouchlands Farm is to be ruled out as unreasonable.

5.5.11 However, on balance, there is a need to consider Crouchlands Farm as an option through the appraisal of reasonable growth scenarios. As such, for the parish containing Crouchlands Farm (Plaistow and Ifold, although the site is also near to Kirdford), there are four reasonable growth scenarios.

5.5.12 There are a very large number of potential combinations of these settlement scenarios, hence there is a clear pragmatic need to make a simplifying assumption. This leads to a shortlist of six scenarios.

Table 5.4: Shortlist of RA growth scenarios for the northeast

Supply component \ Scenario		1	1a	2	2a	3	3a
Completions		54		54		54	
Commitments		198		198		198	
Windfall		62		62		62	
New supply	Kirdford	Lower growth scenario at all villages = 200 homes		Higher growth scenario at all villages = 825 homes		Highest growth scenario at all villages = 1,650 homes	
	Loxwood						
	Plaistow and Ifold						
	Wisborough Green						
	Crouchlands Farm new settlement	0	600	0	600	0	600
Total homes		**514**	**1,114**	**1,139**	**1,514**	**1,964**	**2,564**

5.5.13 However, Scenarios 3 and 3a would involve delivering more than the ~1,800 homes assumed as part of the Water Neutrality Mitigation Strategy (as discussed above, in Section 5.2). On balance, just Scenario 3a is ruled out as unreasonable, on this basis, leaving **five reasonable growth scenarios**.

Table 5.5: The RA growth scenarios for the northeast

Supply component \ Scenario		1	1a	2	2a	3
Completions		54		54		54
Commitments (December 2022)		198		198		198
Windfall		62		62		62
New supply	Kirdford	50		150		300
	Loxwood	75		450		1,050
	Plaistow and Ifold	25		150		175
	Wisborough Green	50		75		125
	Crouchlands Farm new settlement	0	600	0	600	0
Total homes		**514**	**1,114**	**1,139**	**1,514**	**1,964**
Per annum		**29**	**62**	**63**	**84**	**109**

5.5.14 Final points to note are as follows:

- See discussion above regarding the need to make simplifying assumptions.
- It is important to reiterate that 'new supply' refers to homes over-and-above completions / commitments.
- With regards to the distinction between local plan vs. parish allocations, other than Crouchlands Farm and highest growth at Loxwood, there would be reliance on parish allocations.

6 Growth scenarios appraisal

6.1 Introduction

6.1.1 The aim of this section is to present an appraisal of the two sets of reasonable growth scenarios introduced above, i.e. growth scenarios for the southern plan area and the northern plan area. To reiterate (see Section 4), these are the "reasonable alternatives".

Methodology

6.1.2 Each of the two appraisals is presented in the form of an appraisal 'matrix', comprising a column for each of the reasonable alternative growth scenarios, and a heading for each of the 13 components of the SA framework (see Section 3). Each of the appraisal matrices is followed by a supporting commentary.

6.1.3 Within each row, the aim is to:

1) rank the scenarios in order of performance (with a star indicating best performing; "=" indicating scenarios performing broadly on a par; and "?" indicating an inability to reach a conclusion); and then

2) categorise the performance in terms of 'significant effects' using red / amber / light green / green.[22]

6.1.4 Further points to note on methodology are as follows:

- Variable supply components – are a primary focus of the appraisal here, although 'constant' supply components are taken into account when reaching conclusions on significant effects. Constant supply components are a focus of the appraisal in Section 9.
- Assumptions – there is a need to make a range of assumptions, e.g. around the nature of schemes that would come forward, infrastructure delivery etc. The appraisal aims to strike a balance between exploring and explaining assumptions on the one hand whilst, on the other hand, ensuring conciseness.
- Site specific materials – typically submitted by site promoters, are taken into account with due caution, given a risk of bias and mindful that site-specific proposals are subject to change.

N.B. further general points on appraisal methodology are presented in Section 9.

6.2 Southern plan area

6.2.1 The appraisal of the southern plan area reasonable alternative growth scenarios is presented below.

6.2.2 In summary, the growth scenarios are as follows:

- Scenario 1 – Supply from completions, commitments, windfall and constant allocations only
- Scenario 2 – Scenario 1 plus higher growth at select service villages (SVs)
- Scenario 3 – Scenario 1 plus higher growth at Westhampnett
- Scenario 4 – Scenario 1 plus higher growth at select SVs and Westhampnett
- Scenario 5 – Scenario 1 plus higher growth at Southbourne
- Scenario 6 – Scenario 1 plus higher growth at Southbourne and select SVs
- Scenario 7 – Scenario 1 plus higher growth at Southbourne and Westhampnett

[22] **Red** indicates a significant negative effect; **amber** a negative effect of limited or uncertain significance; **light green** a positive effect of limited or uncertain significance; and **green** a significant positive effect. No colour indicates a neutral effect.

Appraisal of the southern plan area reasonable growth scenarios

Completions, commitments, windfall + constant allocations + growth / higher growth at…	Scen 1 -	Scen 2 SVs	Scen 3 W'nett	Scenario 4 SVs W'nett	Scenario 5 S'bourne	Scenario 6 S'bourne SVs	Scenario 7 S'bourne W'nett
SA topic	**Rank of preference and categorisation of effects**						
Accessibility	2	3	2	3	1	3	1
Air / env quality	4	2	1	2	1	4	3
Biodiversity	2	3	1	3	3	4	3
CC adaptation	=	=	=	=	=	=	=
CC mitigation	3	2	2	2	1	1	1
Communities and health	2	2	2	3	1	2	2
Economy, employment	=	=	=	=	=	=	=
Historic env	2	1	2	2	1	1	2
Housing	5	4	3	2	2	1	1
Land, soils, resources	1	2	3	4	5	6	7
Landscape	2	2	1	2	1	3	1
Transport	2	3	1	5	2	5	4
Water	2	2	1	2	4	5	4

Discussion

There are three immediate points to note.

- Firstly, Scenarios 3 and 5 are shown to perform well under a relatively high number of topic headings, and to perform poorly under relatively few topic headings. This is an indication that these scenarios perform well overall, however, this conclusion cannot be taken from the appraisal with any certainty. This is because the appraisal is undertaken without any assumptions made regarding the degree of importance, or 'weight', that should be assigned to each topic heading in the decision-making process. In short, the intention is not for the scores in each column to be tallied-up in order to arrive at an overall score for each of the scenarios.
- Secondly, Scenario 1 (low growth) is shown to perform relatively poorly under most topic headings, with the exception of 'Land' (reflecting an understanding that the Chichester southern plan area is associated with an extensive resource of Grade 1 quality agricultural land). This reflects an assumption that low growth could lead to unmet housing needs that would need to be met elsewhere within a constrained sub-region. The locations where unmet need would be met are not known, but that in itself serves as a reason for proactively planning to meet Chichester District's housing needs in full through the local plan, as far as possible.
- Thirdly, all of the scenarios are associated with pros and cons, which is invariably the case when dealing with scenarios that are 'reasonable'. It is for the Council, as decision-maker (not SA), to weigh-up the pros and cons of each scenario, and reach a conclusion on which best represents sustainable development on balance.

Having made these initial remarks, the following bullet points consider the relative merits of the reasonable alternative growth scenarios in terms of each of the SA topic headings in turn:

- **Accessibility** (to community infrastructure) – a key differentiator here is the matter of primary school capacity at **Hunston / North Mundham**. This is discussed in Appendix V, but in summary there is evidence to suggest no primary school capacity locally and no potential for expansion, albeit there is some uncertainty in this respect, plus there is a need to recognise that pupil forecasts are changeable, and increased school capacity elsewhere could serve to free up capacity at North Mundham Primary School. In this respect, there is a need to note the assumption, under all growth scenarios, of a 680 home urban extension to the east of Chichester ('Land east of Chichester') to include delivery of a new one form entry primary (with potential for two form).

  The other key differentiator, in respect of 'accessibility', is tentative support for higher growth at **Southbourne**, i.e. support for a 1,500 home broad location instead of 1,050 home broad location (either way, there would be a need for the formal allocation to follow via a subsequent plan). This reflects a view that support for additional homes *might* enable a more comprehensive scheme, to include additional community infrastructure benefits or, at least, additional land given over to community uses (including green infrastructure). The latest draft Southbourne Neighbourhood Plan (NP, 2022) discusses *"a serious risk of large scale piecemeal development being permitted, with no master planning and minimal developer contributions of land and money towards important infrastructure."* However, it is difficult to conclude that a 1,050 would not suffice.

  The now *withdrawn* Southbourne Parish NP 2019-2037 (February 2021) proposed a 1,050 home eastern extension to the village (extending the 199 home committed site) and presented considerable detail in respect of masterplanning in order to realise community and environmental opportunities, and a review of the available information does not immediately serve to highlight any additional opportunities that might be realised through higher growth (i.e. ~1,500 homes). It might feasibly assist in terms of new primary school capacity, mindful that the withdrawn NP set out a clear requirement for a *"minimum of 3.3ha of land… for a 2 Form Entry (FE) expandable to 3FE primary school"*, and it is understood that primary school capacity at Southbourne is important for supporting growth elsewhere on the A259 corridor; however, there is little certainty, at this stage.

  Southbourne is understood to lack a clear centre, which could serve to suggest a particular opportunity. However, in practice, it is understood that it there is limited potential to address this issue, given where available land is located (primarily north of the railway), and mindful of a site for 199 homes granted permission at appeal in 2020. The withdrawn neighbourhood plan proposed a 'gateway' area, close to the rail station, that would be a focus of non-housing uses, and it is noted that there is a current planning application for 40 homes in this area (ref. 22/01903/OUT), which serves to highlight the importance of adopting a strategic plan.

  With regards to land to the west of Southbourne, there has not been the same level of masterplanning effort, but land here does have the benefit of closely linking to the secondary school. Also, it is noted that there are few HELAA sites in this area, and so presumably few land-owners, which could help in terms of negotiating provision of land for non-housing uses. Finally, it is recognised that, in practice, a larger (1,500 home) broad location could result in a split of growth to the east and to the west, potentially with sub-optimal outcomes in terms of securing community infrastructure benefits / planning gain to the benefit of the village as a whole.

  A final consideration is that no parish allocation is made for **Birdham** under four of the seven reasonable growth scenarios. There is no reason to suggest this gives rise to an issue, but there is a need to be mindful that rural primary schools can sometimes struggle to maintain school rolls, in light of decreasing birth rates.

  With regards to significant effects, there is an argument for predicting positive effects, at least under the better performing scenarios, given support for certain of the 'constant' supply elements, i.e. those that are assumed under all scenarios. However, on balance 'neutral' effects are predicted at this stage (see Section 9).

- **Air / wider environmental quality** – there is just one small air quality management areas (AQMA) in the centre of Chichester; however, it is fair to flag a concern with the **higher growth scenarios** given A27 capacity issues. This is particularly the case for Scenario 6, which would see additional homes on the **Manhood Peninsula**, leading to a risk of severe traffic congestion at A27 junctions, potentially leading to problematic air pollution, with particular concerns for the communities of Stockbridge and Whyke (Chichester southern edge).

  Also, it is fair to flag a concern with Scenario 1, as the **lowest growth scenario**, as unmet housing needs could lead to additional pressure to deliver housing elsewhere within a constrained sub-region, potentially at locations that are sub-optimal in terms of transport objectives and, in turn, air quality objectives. There are AQMAs along the A27 at Worthing, as well as within the urban areas of both Portsmouth and Brighton.

  With regards to significant effects, there is also a need to account for the phasing of growth (e.g. Southbourne will be later in the plan period) and an improving baseline situation, given the national switch-over to EVs. In this light, it is not possible to predict negative effects with any certainty, i.e. 'neutral' effects are predicted.

- **Biodiversity** – in many respects the settlements and locations / potential locations for growth in question are mostly subject to fairly limited biodiversity constraint, in terms of proximity / functional links to internationally, nationally and locally designated habitats (also non-designated priority habitat); however, **nutrient neutrality** is a key issue for discussion here (as well as again below, under the 'water' heading). It is on this basis that a particular concern is 'flagged' with Scenario 6, which would see higher growth at both Southbourne and 'select service villages', to include Chidham / Hambrook (and potentially others) subject to nutrient neutrality. In practice, phasing of growth in line with wastewater treatment work upgrades would be a clear requirement; however, a more ambitious growth strategy could nonetheless introduce some additional risk.

  In this light, higher growth to the east of Chichester, and specifically at **Westhampnett**, is supported from a biodiversity perspective. The site is overall considered to be subject to low biodiversity constraint, with a primary consideration potentially being the hedgerows along Old Arundel Road, at the site's northern extent, but the need for any significant loss of hedgerow seems unlikely (noting that the proposed scheme does not include land to the north of Old Arundel Road). Land at the eastern edge of the site was previously proposed for a strategic wildlife corridor, but this proposal was revised in 2021 (see paragraph 5.2.37, above).

  Returning to the question of higher growth at **Southbourne**, there is a notably low density of priority habitat in this area, and potentially also limited constraint in terms of historic field boundaries, in comparison to other locations under consideration for higher growth. However, the withdrawn neighbourhood plan notably proposed a 'green infrastructure led' strategic urban extension to the east of the village (see the GI proposals here), which could (feasibly) be called into question under a higher growth strategy, and the current draft neighbourhood plan includes an emphasis on securing a green ring around the edge of the current built form. With regards to land west of Southbourne, a potentially significant constraint relates to agricultural fields being functionally linked to the Chichester and Langstone Harbours SPA as a 'secondary support area' for populations of Brent Geese. Also, more generally, the SPA is in proximity and quite well linked by footpath.

  With regards to significant effects, it is appropriate to flag a risk of 'moderate or uncertain' negative effects for the worst performing scenario. With regards to the package of sites / supply components held constant across the growth scenarios, there are overall limited concerns, as discussed in Section 9.

- **Climate change adaptation** – the primary consideration here is flood risk, particularly fluvial and tidal flood risk. This is a widespread issue across the southern plan area and across the wider coastal sub-region, hence there is support for higher growth strategies that direct growth to locations with limited or no flood risk. That is the case for all the locations under consideration here, as variables across the growth scenarios. There is an argument for flagging a concern with Scenario 1 which, as a lowest growth scenario, could lead to pressure for development at locations subject to flood risk, likely outside of the district; but this is unlikely.

  North Mundham is closely associated with Bremere Rife, along which there is a fluvial flood zone, but there are potential locations for growth not subject to fluvial flood risk. There is surface water flood risk at a number of the locations under consideration for growth, including associated with pooling north of the railway line (Southbourne, Chidham and Hambrook) and A27 (Westhampnett), but the extent of the risk zones seems unlikely to create a significant challenge for masterplanning, given potential for sustainable drainage systems (SuDS). There is also extensive groundwater flood risk, including affecting Southbourne (see Section 5.2).

  With regards to significant effects, there is a need to account for a constrained site that is a constant across all the scenarios (see Section 9), hence neutral effects are predicted for the better performing scenarios.

- **Climate change mitigation** – this is a key issue for the local plan, which must demonstrate a suitably ambitious approach in respect of minimising greenhouse gas emissions from both transport and the built environment. Taking these matters in turn:
  - **Transport emissions** – a stand-alone discussion of transport-related considerations is presented below (also see discussion above, under 'accessibility'), but a key consideration here is in respect of ensuring a strategy that provides for 535 dpa in full in the southern plan area, in order to reduce pressure for growth elsewhere at locations with high car dependency or a need to travel longer distance by car. This includes the northeast plan area. Another consideration is the potential for strategic growth locations to support walking and cycling and a degree of local trip internalisation / self-sufficiency.
  - **Built environment emissions** – strategic growth locations can tend to give rise to a range of opportunities over-and-above smaller scale growth locations, particularly where development viability is high on account of a strong local housing market and no/few abnormal development costs. In this light, there is tentatively a degree of support for higher growth at Southbourne, and it is noted that both the withdrawn neighbourhood plan and the current emerging neighbourhood plan both include a considerable emphasis on built environment decarbonisation. It could well prove that there are additional opportunities to minimise per capita emissions under a higher growth scenario (~1,500 homes).

With regards to significant effects, it is invariably difficult to draw strong conclusions. On the one hand, climate change mitigation is a global issue (such that local actions only have a limited effect); however, on the other hand, there is a need for a level of ambition in line with national and local commitments. There is also the need to factor in that the baseline 'no plan' scenario would likely see relatively piecemeal / poorly coordinated growth, with opportunities missed for built environment decarbonisation (e.g. a masterplanned approach to growth at Southbourne). On balance, neutral effects are predicted, but see discussion in Section 9.

- **Communities and health** – it is difficult to draw strong conclusions in respect of factors over-and-above those already discussed above, under 'accessibility'. Higher growth at **Southbourne** could feasibly lead to 'communities' related benefits over-and-above those already discussed (e.g. mindful that the Government's Garden Communities Prospectus (August 2018) suggested 1,500 homes as the minimum size of a garden village, albeit potentially with a stand-alone village in mind), but it is difficult to pinpoint specific opportunities.

  There is also a need to consider **Chidham and Hambrook**, where the Preferred Approach consultation document proposed a 500 home parish allocation, and emphasised the need for *"a high quality development to be masterplanned"* so as to deliver a relocated primary school and *"improved community facilities including recreation, open space, allotments and a convenience store."* However, there is seemingly no longer any potential for a scheme of this nature, to include a primary school, so it may be that higher growth (~250 homes over-and-above completions and commitments) results in a range of smaller sites coming forward mindful that a 118 home scheme, at the northern extent of the parish, gained permission at appeal in November 2021 (ref. 20/01826/FUL), and also mindful of six significant pending planning applications, two of which are currently at the appeal stage. The following statement from the Chidham and Hambrook Neighbourhood Plan 'Strategy' consultation document (2022) is also notable: *"The [Preferred Approach consultation document (2018), required] that land be allocated for a two form primary school in the Parish. However, the Chichester Infrastructure Delivery Plan (IDP) notes that… instead, contributions should be made towards the building of a new primary school in Southbourne. Representations made by West Sussex County Council… confirm that, combined, growth across Chidham & Hambrook, Bosham and Southbourne will require delivery of new primary school provision, though there is currently no certainty as to where this will be provided."*

  As for **Westhampnett**, it is difficult to point to ways in which the development would directly and significantly benefit the village ('planning gain'), and it is noted that there is high committed growth within the parish (at its western extent, some way distant). Also, the site is adjacent to the A27, such that noise pollution is a consideration (although this is also potentially an issue to the west of Chichester), and achieving good access (including sufficient space for pedestrians and cyclists) could feasibly prove challenging, given the road configuration and historic environment assets. There are also power lines crossing the site.

  With regards to significant effects, it is again difficult to separate the discussion here from that presented above, under 'accessibility'. On balance neutral effects are predicted across all the growth scenarios.

- **Economy and employment** – none of the sites in question would deliver significant new employment land (although the possibility of a shared workspace facility could be explored at Southbourne, and there could be additional potential under a higher growth scenario), and it is difficult to suggest that higher housing growth would lead to significant benefits in terms of supporting any existing employment areas / companies locally.

  With regards to significant effects, the key point is that objectively assessed employment land needs would be met under all scenarios, hence it is possible to conclude significant positive effects (see Section 9).

- **Historic env** – all of the variable sites / potential growth locations are associated with a degree of historic environment constraint; however, it is judged appropriate to highlight a particular concern with **Westhampnett**, where there is a cluster of three listed buildings (plus other buildings with historic character) close to the site access (it is unclear what, if any, junction upgrades would be required), associated with the historic hamlet of Maudlin (the junction of Stane Street, which is a Roman Road, and the Old Arundel Road). Reflecting a location adjacent to a Roman road, there is also a likelihood of archaeology, although there is little reason to suspect that this could be a barrier to development (or lead to significant delays to development).

  Potential growth locations at Southbourne and Chidham and Hambrook are relatively unconstrained in historic environment terms, with historic settlement having been to the south, along the A259 corridor (although historic rural lanes are a consideration, including Priors Leaze Lane, where there are two closely linked historic farmsteads, both with grade 2 listed farmhouses, collectively shown as 'Inlands' on the pre-WWI OS map). As for North Mundham / Hunston and Birdham, all three villages are associated with significant historic environment constraint, but there would be good potential to avoid impacts through considered site selection.

With regards to significant effects, it is appropriate to flag a risk of 'moderate or uncertain' negative effects at this stage, ahead of receiving detailed comments from Historic England, noting changes made to the proposed strategy since the 2018 Preferred Approach stage (Historic England responded to the January 2022 consultation emphasising a desire to reserve the right to comment further in light of site-specific proposals). Having said this, there is inevitably good potential to mitigation impacts through policy and at the DM stage.

- **Housing** – the growth scenarios vary only modestly in terms of total growth quantum, but the variation is not insignificant, given the likelihood of needing to set the local plan housing requirement at a figure below local housing need (LHN) and so export unmet housing need to neighbouring areas, within a subregion where unmet housing need is already a significant issue. There is a clear argument for seeking to deliver 535 dpa within the southern plan area, which is the figure agreed with National Highways (who would likely object to higher growth on A27 capacity grounds). As such, Scenario 1 performs poorly, as supply would be 527 dpa.

  An important question is whether supply should modestly exceed 535 dpa, such that there is a '**supply buffer**' to account for unforeseen delivery issues at the development management stage. A supply buffer is common practice, with a view to minimising risk of failing to be able to demonstrate a five year housing land supply at any point in the plan period, which has been a major issue recently, leading to numerous sites gaining planning permission at appeal. In this light, and from a pure 'housing' perspective, it is fair to suggest that there could be merit in a modest supply buffer. However, it is recognised that there are also clear arguments against a supply buffer, given the need to be quite certain that the 535 dpa 'cap' will not be breached in practice.

  Aside from the question of total growth quantum, the next most significant consideration is the **timing** of housing delivery, with a view to ensuring a smooth housing supply trajectory, as far as possible, over the course of the plan period. Westhampnett performs well in this respect, as work on a planning application would not be delayed by the need for further plan-making, as would be the case for the other variable locations.

  With regards to **Southbourne**, there are also two further considerations. Firstly, there is a question-mark (and therefore a risk) in respect of whether 1,500 homes is deliverable in the plan period, as making a formal allocation will take time, and development will only be able to commence once wastewater treatment work upgrades have been completed. Secondly, there is a need to consider the undoubted importance of the Southbourne broad location for meeting the accommodation needs of Traveller communities (see Appendix III). A higher growth scenario could potentially enable needs to be met more fully.

  With regards to significant effects, the key consideration is the implication of lower growth scenarios for unmet needs, given clear barriers to housing growth in the northeast plan area, as discussed below.

- **Land, soils, resources** – a primary consideration is avoiding the loss of best and most versatile (BMV) agricultural land, as far as possible. The NPPF defines BMV land as that which is of grade 1, 2 or 3a quality, and the available national dataset (available at magic.gov.uk), identifies extensive **grade 1 quality land** across the east-west corridor, with a particular concentration at Southbourne. Agricultural land quality is not as high on the Manhood Peninsula, but a very high proportion of land is likely to be of BMV quality nonetheless. However, none of the potential growth locations have been surveyed in detail (see the other agricultural land quality dataset available at magic.gov.uk), such that it is appropriate to rank the scenarios in order of total growth quantum. Chichester is notably constrained in the sub-regional context, although so is Arun District.

  A further consideration is **minerals** safeguarding areas, with the key diagram of the West Sussex Mineral Local Plan showing extensive soft sand resource along the east-west corridor, including at Southbourne and Westhampnett (where there was quarrying of adjacent land in the past). However, it is also important to note that safeguarding is not absolute, as explained by the Minerals Safeguarding Practice Guidance (2019): *"Allocation of sites for non-minerals development within [safeguarding areas] should be avoided where possible… However, safeguarding is not absolute. Where other considerations indicate that a proposed site allocation… is appropriate… mitigation measures [should] reduce the… amount of resource sterilised."*

  With regards to significant effects, it is difficult to judge what level of BMV land loss is 'significant'. Under Scenarios 1 and 2 the levels might be judged less than significant, assuming neighbourhood plans account for agricultural land quality as part of site selection (which is challenging in the absence of detailed evidence).

- **Landscape** – a key source of evidence is the Landscape Study (2019), which serves to highlight limited sensitivity / a good degree of capacity at most of the variable growth locations, other than **North Mundham**. At **Southbourne**, this is quite an open and expansive landscape, but work in support of the withdrawn neighbourhood plan served to identify good potential to define a new long term / defensible urban edge, assuming a focus of growth to the east of the village. At **Chidham and Hambrook**, there does appear to be a 'landscape' argument for consolidating the north-south built form, accounting for Priors Leaze Travelling Showpeople site to the west, and ensuring a strategic approach to avoiding piecemeal expansion into more sensitive landscapes to the east (whilst balancing arguments for growth in proximity to the train station).

At **Westhampnett**, the proposed site (Maudlin Farm) is well-contained, in that there are robust boundaries, although there are views into the site from adjacent public rights of way (the OS map shows cycle routes on two sides of the site, associated with historic lanes, but these appear to be blocked off by the A27). At **Birdham** there is a potential concern in that some site options, which might come into contention for allocation, relate poorly to the core of the village, and there is a need to avoid the risk of 'sprawl' across a flat and quite expansive landscape, mindful of views from the A286 and the Somerley Conservation Area to the south.

A final consideration is the risk of 'in combination' impacts from higher growth at both Southbourne and Chidham and Hambrook, in terms of maintaining suitable landscape gaps (and, in turn, settlement identity and sense of place) along the **A259 corridor**. However, it is not clear that there are any significant concerns, given intervening Ham Brook corridor, the need to suitably buffer Priors Leaze Travelling Showeople site and also mindful of the detailed master planning work that was undertaken for the withdrawn Southbourne NP.

With regards to significant effects, there is good or reasonable alignment with the landscape capacity study under all scenarios (including mindful of sites that are a constant), and there are few concerns regarding impacts to one or both of the nearby designated landscapes, hence neutral effects are predicted.

- **Transport** – there is a clear and significant concern with **higher growth** scenarios, given the risk of an objection from National Highways on the grounds that the proposed 'monitor and manage' strategy (discussed in Section 5.2) could be insufficient to avoid severe traffic congestion on the A27. Higher growth focused at **Southbourne** could potentially give rise to reduced concerns - given the rail station, planned A259 cycle upgrades, a lack of direct access onto the A27, good road links to Portsmouth and the potential to masterplan with a focus on transport objectives – however, in practice it is not clear that 1,500 homes is deliverable in the plan period (because growth can only come forward subsequent to wastewater treatment works upgrades).

  There is also not support for either **lower growth** or directing growth to the **Manhood Peninsula**, from a transport perspective, as has been discussed. In this light, Scenario 3 is judged to perform relatively well. However, there is nonetheless a need to flag a risk of 'moderate or uncertain' negative effects, given the inherent uncertainties associated with the A27 monitor and manage strategy, as discussed in Section 5.2.

- **Water** – this is a key issue for the southern plan area, specifically the issue of nutrient neutrality, as introduced in Section 5.2. The key issue is **wastewater treatment capacity**, and whilst in practice there would be a requirement for growth to be phased so as to follow capacity upgrades under any scenario, there is nonetheless a clear 'water' related argument for reducing pressure for upgrades as far as possible, given inherent risks of unforeseen costs or otherwise delivery issues.

  As such, there is clear support for **Scenario 3**, which would avoid higher growth at locations captured by the nutrient neutrality constraint. With regards to Scenario 1, whilst there are nearby locations within the sub-region that are not constrained by the need for new development to demonstrate nutrient neutrality, the effect of lower growth would be to increase pressure for growth in the northeast of the district, which is affected by water neutrality, as discussed in Section 5.2.

6.3 Northeast plan area

6.3.1 The appraisal of the northeast plan area reasonable alternative growth scenarios is presented within the table below. In summary, the growth scenarios are as follows:

Supply from completions, commitments, windfall plus…

- Scenario 1 – **Lower** growth scenario across all parishes
  - Scenario 1a – plus Crouchlands Farm New Settlement
- Scenario 2 – **Higher** growth scenario across all parishes
  - Scenario 2a – plus Crouchlands Farm New Settlement
- Scenario 3 – **Highest** growth scenario across all parishes

6.3.2 To recap the appraisal methodology, within each row of the appraisal table, the aim is to: **1)** rank the scenarios in order of performance (with a star indicating best performing; "=" indicating scenarios performing broadly on a par; and "?" indicating an inability to reach a conclusion); and then **2)** categorise the performance in terms of 'significant effects' using red / amber / light green / green.[23]

[23] **Red** indicates a significant negative effect; **amber** a negative effect of limited or uncertain significance; **light green** a positive effect of limited or uncertain significance; and **green** a significant positive effect. No colour indicates a neutral effect.

Appraisal of the northeast plan area reasonable growth scenarios

SA topic	Scenario 1 Low	Scenario 1a Low Crouchlands	Scenario 2 Higher	Scenario 2a Higher Crouchlands	Scenario 3 Highest
	Rank of preference and categorisation of effects				
Accessibility	2	☆1	4	3	5
Air / env quality	=	=	=	=	=
Biodiversity	?	?	?	?	?
CC adaptation	=	=	=	=	=
CC mitigation	?	?	?	?	?
Communities and health	2	☆1	4	3	5
Economy, employment	=	=	=	=	=
Historic env	2	☆1	4	3	5
Housing	6	5	4	3	2
Land, soils, resources	=	=	=	=	=
Landscape	2	☆1	4	3	5
Transport	☆1	2	3	4	5
Water	☆1	2	3	4	5

Discussion

There are several immediate points to note from the appraisal matrix:

- Lower growth – is judged preferable to higher growth under six topic headings, whilst higher growth is judged preferable to lower growth only in respect of 'housing'. However, it does not necessarily follow that the appraisal finds lower growth to be preferable, or 'most sustainable', overall. This is because the appraisal is undertaken without any assumptions regarding the degree of importance, or 'weight', that should be assigned to each of the topics in the 'planning balance'. It is only the Council, as the decision-making authority, that is in a position to arrive at an overall conclusion on the best performing growth scenario on balance.
- Unmet needs – is a key consideration, but it is difficult to draw conclusions on sustainability implications, other than in terms of 'housing', as it is not known where unmet needs would be met. This matter is a focus of further discussion below, under several of the topic-specific headings.
- Crouchlands Farm new settlement – is shown to perform well under several headings, primarily because: the location is relatively unconstrained in several environmental respects; and the proposal includes delivery of a primary school. However, there are significant drawbacks to the scheme, as discussed further below.
- Uncertain effects - is the conclusion under two headings. In both cases there are important issues/impacts to consider, but it is not possible to reach a conclusion on an order of preference with any certainty, including once account is taken of the fact that lower growth would lead to unmet needs.
- No differential effects – is the conclusion under four headings. These topic headings are considered less central to the appraisal, but that is not to say that there are not a range of issues to consider.

Having made these opening remarks, the following bullet points consider each of the topic headings in turn:

- **Accessibility** – the sub-area, as a whole, is rural and not well-connected to higher order settlements, and there are particular concerns with higher growth at Kirdford and Ifold, given the lack of a local primary school.

  Loxwood is the village with the best local 'offer', in terms of local services and facilities, and under the highest growth scenario there would clearly be the potential to deliver a new primary school in order to meet the needs generated by *the new community* (given an assumption that there would be a strategic expansion to the west of the village). In contrast, the higher growth scenario could risk a piecemeal approach to the westward expansion of Loxwood in the long term, with sub-optimal outcomes for community infrastructure and wider 'planning gain'. However, even under the highest growth scenarios, it is not clear what strategic community infrastructure would be delivered to the benefit of *the existing community* / the village as a whole.

  As for **Kirdford**, a primary school would clearly benefit the existing community, but it seems very unlikely that a primary school for the village would be delivered even under the highest growth scenario.

  In this light, the **lower growth** scenarios are judged to be preferable on balance (N.B. there is no indication that any of the existing primary schools are in need of additional pupils in order to remain viable). However, there is considerable uncertainty given the risk of unmet needs being generated that, in turn, must be met in locations with equal or greater accessibility challenges. It is not possible to make any firm assumptions, regarding where unmet needs would be met; however, initial considerations include: 1) the south of Waverley is similarly rural, but Cranleigh is an expanding large village, and a new settlement is set to come forward at Dunsfold Aerodrome, with an SPD adopted earlier last year; and 2) the northern half of Horsham is less rural.

  With regards to **Crouchlands Farm**, the scheme is proposed to deliver a primary school, which is an important consideration, including as it would benefit Kirdford; and the Whole Farm Plan proposals are also noted. However, the potential for this number of homes to support a suitably comprehensive scheme is highly questionable. For example, the Government's Garden Communities Prospectus (2018) suggested a need for at least 1,500 homes, and there is also a need to critically consider Crouchlands Farm in light of paragraph 73 of the NPPF, which sets out criteria under which to judge proposals for larger scale development proposals.

- **Air / wider environmental quality** – there are no air quality management areas (**AQMAs**) in the area, and it is difficult to suggest the likelihood of higher growth leading to problematic increased traffic through an AQMA outside of the area, despite a safe assumption being that growth locations would see high car dependency. Equally, it is difficult to suggest that **unmet needs** would lead to a risk of increased traffic through an AQMA, e.g. noting no AQMAs designated at Borden, Liphook, Haslemere, Cranleigh, Billinghurst or Horsham. Air quality is more of an issue at several towns further afield, including Farnham, Guildford, Godalming and Crawley, but the assumption must be that unmet needs would be met closer to the plan area. Neither is it the case that there are any **wider issues** of likely significance, e.g. with no concerns regarding new homes coming forward adjacent to main roads or railways (e.g. in contrast to the southern plan area, where there is a focus on growth locations close to the A27, and the emerging strategies for neighbouring areas, e.g. proposals to focus growth alongside the A24 in Horsham).

  In this light, it is not possible to confidently support lower growth. With regards to Crouchlands, it is noted that there are contaminated land sensitivities, but these are not thought to affect the proposed development area.

- **Biodiversity** – it is not clear that there is any significant risk of impacts to a nationally designated SSSI or a locally designated Site of Importance for Nature Conservation (SNCI), but there are risks to ancient woodland and non-designated priority habitats. The greatest concern potentially relates to the likely need for significant expansion to the north of **Kirdford**, under a higher / highest growth scenario, as this is a landscape associated with a dense network of ancient woodlands, common land and historic field boundaries.

  A second concern relates to **Crouchlands Farm** new settlement, where development would again lead to fragmentation of ancient woodland patches, and potentially lead to problematic recreational pressure; although, on the other hand, there could be green infrastructure benefits around enabling access to woodlands. Similarly, on the one hand growth to the south of **Ifold** would be in close proximity to ancient woodland and an associated stream corridor; however, on the other hand, there might be a green and blue infrastructure opportunity, with this landscape currently largely inaccessible (including Wepstead Woods to the south, which is a very large woodland).

  There is also a need to consider **West of Loxwood**, on account of its scale. Overall, this land is considered to be relatively low sensitivity, from a biodiversity perspective, in the context of a constrained subregion. However, there would be a need for careful consideration of the river / canal corridor, with targeted enhancements to offset the pressure that would result from large scale development nearby or adjacent.

  Another consideration is the Mens SAC constraint, which affects **Wisborough Green** in particular.

In this light, there is a clear argument for **lower growth**. However, on balance, it is not possible to confidently conclude that lower growth is preferable to higher growth. This is because of the extent of biodiversity sensitivities affecting locations close to the plan area, where **unmet needs** might be met. Perhaps most notably, the Haslemere and Liphook area is heavily constrained by internationally designated heathlands, and the southern extent of Waverley Borough, in the vicinity of Dunsfold, is constrained by the extensive Chiddingfold Forest SSSI complex. As for the south east of Waverley Borough, this area is associated with a fairly high density of ancient woodland, as is land north of Billinghurst / west of Horsham. Land in the vicinity of Billinghurst and the A272 corridor is potentially subject to relatively limited constraint, in biodiversity terms.

- **Climate change adaptation** – the primary consideration here is **flood risk**, particularly fluvial (river) flood risk, but also surface water (noting that the distinction between the two types of flooding is often not clear cut).

  Overall, there are fairly limited concerns with regards to the growth scenarios. However, highest growth scenarios could necessitate significant growth to the south of **Ifold**, where there is a stream corridor associated with a fluvial flood risk zone, and to the north of **Kirdford**, where there is a small stream corridor associated with a surface water flood risk zone. Also, at Loxwood one of the sites identified by the HELAA (at the southeast extent of the village) abuts a fluvial flood risk zone.

  Elsewhere, given the location of shortlisted HELAA sites, it is fair to assume that growth would not be directed to locations in proximity to river / stream corridors (notably Wisborough Green), or there would be good potential to avoid and suitably buffer the flood risk zone (e.g. west of Loxwood, south of Kirdford).

  With regards to the risk of development leading to increased down-stream flood risk, it is difficult to suggest this is any concern given that: A) it is typically possible to design in Sustainable Drainage Systems (SuDS) to ensure that development does not lead to an increase in surface water runoff; and B) it is difficult to suggest downstream urban areas at risk (the only area of note is the southern extent of Wisborough Green, downstream of Kirdford). Equally, it is difficult to suggest any opportunities around supporting enhancements to river corridors that lead to increased flood storage.

  Overall, it is not possible to suggest that flood risk is a reason for supporting a lower growth scenario. This is also the case because lower growth would lead to pressure for higher growth elsewhere. Whilst it is not the case that lower growth in the northeast plan area would lead to pressure for higher growth in the constrained southern plan area (because the level of growth here is 'capped' to reflect A27 capacity), Horsham and Cranleigh are notable as settlements with built-up areas subject to a degree of flood risk.

- **Climate change mitigation** – this is a key issue for the local plan, which must demonstrate a suitably ambitious approach in respect of minimising greenhouse gas emissions from both transport and the built environment. Taking these matters in turn:
  - **Transport emissions** – a higher growth strategy for the northeast plan area could well lead to higher per capita transport emissions than a lower growth strategy that generates unmet needs that, in turn, are met elsewhere, as per the discussion presented above, under 'accessibility'. Growth locations would see high car dependency and a need to regularly travel longer distances, with no clear opportunities around growth supporting improved bus connectivity. The ongoing national switchover to electric vehicles leads to reduced concerns; nonetheless, the clear climate change mitigation / decarbonisation priority is directing growth to locations supportive of reduced need to travel, active travel and public transport.
  - **Built environment emissions** – strategic growth locations can tend to give rise to a range of opportunities over-and-above smaller scale growth locations, particularly where development viability is high on account of a strong local housing market and no/few abnormal development costs. House prices are high in the northeast plan area, relative to the southern plan area, which suggests there could be an opportunity. However, it is difficult to suggest any particular opportunity at either Crouchlands Farm of West of Loxwood, in light of the limited evidence available to date. Crouchlands Farm is a unique proposition, such that the potential for abnormal development costs can be envisaged, leading to reduced funding being made available for decarbonisation measures; whilst West of Loxwood is known to face road access challenges, which could prove costly to address. Furthermore, both schemes are at an early stage of development, such that there is no reason to suggest any particular ambition on the part of the developer / commitment to directing limited funds to decarbonisation, and neither site is associated with any clear site-specific opportunity in respect of renewable heat or power. At Loxwood there could feasibly be an opportunity to draw ambient heat from the river/canal, but this is highly speculative.

  Under an **unmet needs** scenario it could well prove to be the case that housing is directed to locations supportive of minimising transport and/or built environment emissions; however, there is no certainty that this would be the case. As such, there is a need to conclude uncertain effects.

- **Communities and health** – as per the discussion above, under 'accessibility', there are few readily identifiable growth related 'communities' opportunities.
  - **New communities** - would benefit from living in an attractive rural area, associated with historic villages and high quality countryside, and at a number of the potential growth locations – notably Crouchlands Farm (Whole Farm Plan) and West of Loxwood (river / canal corridor) – the potential to deliver high quality schemes, that prove very desirable as a place to live, particularly for families, can be envisaged. However, new communities would still face challenges in respect of accessibility, as has been discussed.
  - **Existing communities** – there is a strong argument for a degree of growth within all four of the parishes, over the plan period, with view to: supporting local services / facilities / retail; delivering housing, to include affordable housing and potentially also specialist accommodation, targeted at meeting local needs; and more generally supporting village vitality. However, it is difficult to identify any significant opportunities associated with higher growth, around delivering new infrastructure, investment or wider 'planning gain'.

    Considerations include: Crouchlands Farm new settlement is proposing to deliver a primary school that is closer to Kirdford than the current primary school at Plaistow, but there would still be a need to reach the school by car; growth to the south of Ifold (there is only a village hall and a small shop) might be delivered in a 'comprehensive' fashion such that there is the potential to deliver, for example, a play area, recreation ground or community hub, but there is no reason to assume comprehensive growth; similarly, strategic growth west of Loxwood might feasibly benefit Ifold, but this is highly uncertain, given the intervening river / canal corridor; and higher growth at Wisborough Green would likely involve a large site adjacent to the village primary school, but there is no reason to assume any particular opportunity (e.g. school expansion).

  Overall, there is a preference for **lower growth**, mindful of the interests of existing communities; and a degree of support for Crouchlands Farm. However, this conclusion is uncertain (due to unmet needs leading to knock-on 'communities' implications), and the drawbacks to higher growth are potentially of limited significance.
- **Economy and employment** – none of the sites in question would deliver significant new employment land (although the possibility of a shared workspace facility could be explored at larger sites), and it is difficult to suggest that higher housing growth would lead to significant benefits in terms of supporting any existing employment areas / companies locally or the rural economy in the local area. That is not to say that there would not be benefits, but it is not clear that benefits would be significant or specific to the northeast plan area. A further consideration is around supporting the Whole Farm Plan proposal at Crouchlands Farm; however, there is no reason to suggest that housing growth would lead to a particular opportunity (indeed, the assumption is that land for a new primary school would be at the expense of an equestrian centre). Also, there is little evidence to provide an economic argument for retail and employment development in this area.
- **Historic environment** – Kirdford, Plaistow and Wisborough Green all have designated **conservation areas**, and Loxwood has a notable historic core, whilst Ifold has limited historic character, as an early / mid-20th Century new settlement, and Crouchlands Farm is thought to be of relatively low sensitivity, from a historic environment perspective (e.g. in the context of other new settlements / options elsewhere), although there is clear landscape sensitivity, which will relate to historic environment / heritage sensitivity. There is not known to be any particular archaeological constraints that might serve to hinder growth (recognising that archaeology can often be dealt with appropriately at the development management stage), with no scheduled monuments in the vicinity of any of the potential growth locations, and limited intersect with 'archaeological record' areas.

  Focusing on **Kirdford**, **Plaistow** and **Wisborough Green**, there appears to be good potential to deliver limited growth in such a way that effects to the conservation areas, and particular listed buildings / clusters of listed buildings (taking account of setting), can be avoided or suitably mitigated. However, at all three settlements there are clear concerns associated with the **highest growth** scenario, and this is most notably the case at Wisborough Green, where there could well be a need to support up to 80 homes near adjacent to the grade 1 listed church. Having said this, it is noted that the proposal amounts to just 14.5 dwellings per hectare (the site is 5.5 ha), such that there would likely be good potential to deliver a green space buffer to the church and wider conservation area. Also, at Plaistow there is a need to recall that the loose and open built form of the settlement is such that the adopted local plan does not define a settlement policy boundary.
- **Housing** – as set out in Section 2 of this report, there is a need for housing growth in the northeast plan area to 'close the gap' to local housing need (**LHN**), given a 'cap' on supply in the southern plan area, with a view to minimising the level of **unmet need** exported from Chichester to neighbouring local authorities (in a sub region where unmet need is already a significant issue, such that there is inherently uncertainty regarding if and when unmet needs will be provided for in practice, as well as where). This is despite the fact that the great majority of housing needs across plan area as a whole comes from the southern plan area, and there is quite poor connectivity between the northern plan area and the southern plan area.

In this light, there is (on balance) support for the highest growth scenarios. However, these scenarios are associated with considerable **delivery risk**, particularly in respect of a ~1,000 home scheme to the west of Loxwood, but also notably Crouchlands Farm. If the Council were to commit to delivering both sites, in order to enable a higher housing requirement to be set / minimise the need to export unmet housing need, and were it to transpire that both sites are significantly delayed, there would be a clear risk of the district failing to be able to maintain a five year housing land supply, as measured against the committed housing requirement (or fail the housing delivery test). In turn, there would be a risk of speculative planning applications gaining permission at appeal, which has been a significant issue for the Council over recent years.

Finally, an important consideration is **affordable housing**, with the Government's guidance (PPG) suggesting that affordable housing needs can serve as a reason to consider setting the housing requirement at a figure above LHN. For the whole plan area, the Housing and Economic Development Needs Assessment (HEDNA, 2022) identified a need for 278 social/affordable rented homes per annum, plus a need for up to 301 'affordable home ownership' homes per annum. Taken together, these figures suggest an affordable housing need figure that is not far short of LHN, and hence a figure that is not achievable, recognising that affordable housing can only viably be delivered at a rate of perhaps up to 40% of total housing (and requiring a higher rate invariably leads to a need to compromise on other objectives). In turn, affordable housing needs lead to an argument in support of higher growth / against lower growth (see further discussion in the HEDNA, pgs. 4 and 5).

- **Land, soils, resources** – a primary consideration is avoiding the loss of best and most versatile (BMV) agricultural land, as far as possible. The NPPF defines **BMV land** as that which is of grade 1, 2 or 3a quality, and the available national dataset (available at magic.gov.uk), identifies that the entirety of the NE Plan Area comprises 'grade 3' quality land (bar river/stream corridors, where quality is lower). In practice, this land may be grade 3a (and therefore BMV quality) or grade 3b (and therefore not of BMV quality), with a need for detailed survey work to draw out this distinction. Detailed survey work has only been undertaken for one very small area of land, at Kirdford, which found the land to be of grade 3b quality. In light of this discussion, it is difficult to suggest that there is a strong argument for supporting lower growth, recognising that there is no reason to assume that unmet needs would be met in an area associated with lower quality agricultural land.

  Aside from avoiding loss of high quality or otherwise productive agricultural land, a further consideration is avoiding the undue sterilisation of **minerals** resources. The northeast plan area falls within a safeguarding area; however, this area is very extensive, such that there is little reason to assume that, in practice, there would be a need to extract minerals ahead of development at any of the sites in question.

- **Landscape** – a key source of evidence is the Landscape Capacity Study (2019), which serves to highlight that landscape capacity is a constraint to higher growth scenarios at most settlements, although less so Ifold. Greatest concerns are around higher/highest growth at **Kirdford** and highest growth at **Wisborough Green**. Focusing on Kirdford, there is a concern that 'higher' growth would lead to growth that is not well contained in landscape terms, such that there is a risk of further piecemeal growth / development creep over time.

  In this light, the **lower growth** scenarios are judged to be preferable on balance. However, there is considerable uncertainty given the risk of unmet needs being generated that, in turn, must be met in locations with equal or greater landscape constraints. There is also a need to consider unmet housing needs arising from the South Downs National Park, which must be provided for as a priority ahead of any unmet needs arising from the Chichester Local Plan Area, from a landscape perspective.

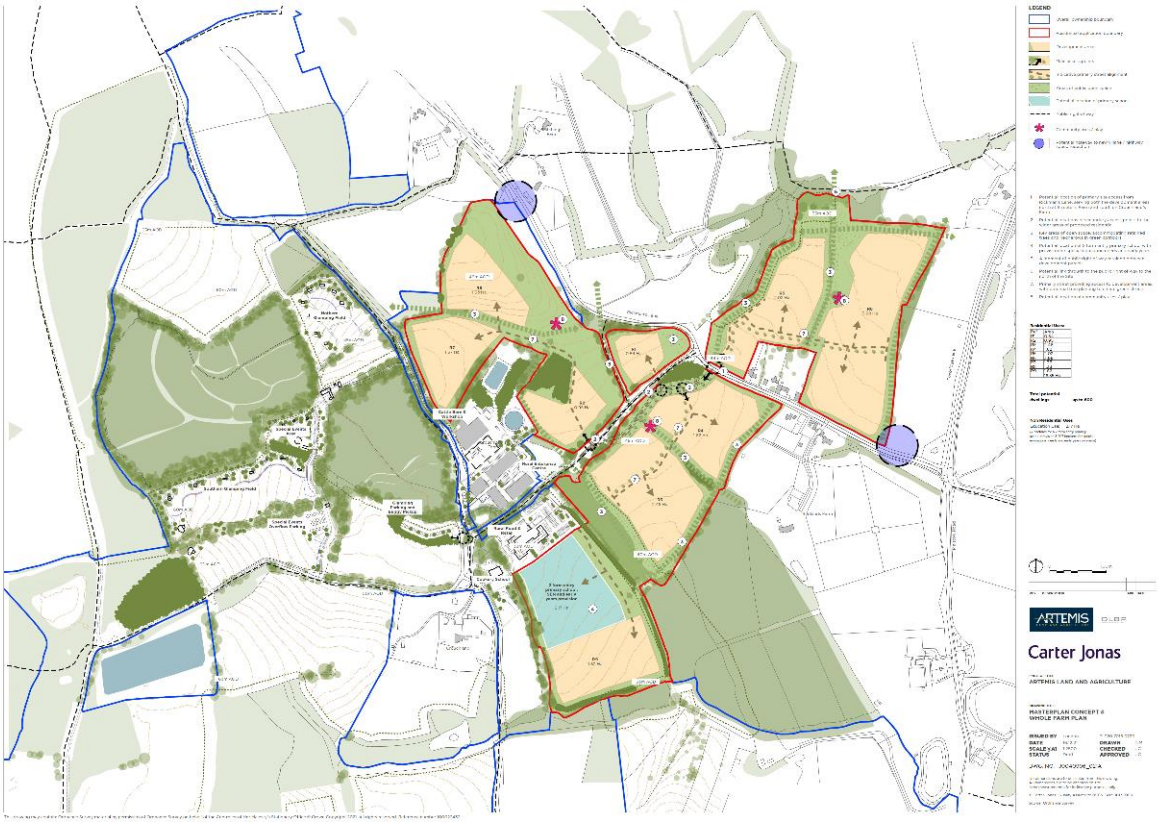
  Finally, with regards to **Crouchlands Farm**, this site is not examined by the Landscape Capacity Study, but is it possible to make three initial observations:

  – The proposed development area is somewhat associated with an east-west stream corridor (flowing towards Ifold), plus there are numerous woodland patches, such that there may be fairly good potential to ensure containment within the landscape. However, there would still be a need for further work to ensure a comprehensive scheme that does not give rise to a risk of piecemeal development 'creep' over time, and the proposed development footprint would ideally be more nucleated, in order to minimise landscape impact / risk of future calls for 'rounding-off' (and with a view to supporting a walkable neighbourhood).

  – The location is notably rural, and it seems unlikely that there are significant views into or across the site from nearby high points in the landscape, such that the range of 'sensitive receptors', in terms of landscape impacts, is likely to be limited. However, issues are likely to include: traffic along Rickmans Lane and the other two lanes linking to Ifold and Kirdford, along which there are attractive rural views and a number of listed buildings and other buildings with historic character (shown on the pre-1914 OS map). Also, a bridleway passes through the site, which links Plaistow to Kirdford.

  – The 600 dwellings figure is based on 35 dwellings per hectare, which is quite a high density.

  The figure below shows the latest concept masterplan received from the site promoters.



- **Transport** – a range of concerns with higher growth have already been introduced above, under the 'accessibility', 'communities' and 'climate change mitigation' headings. Another general concern, not a focus of discussion above, is the risk of problematic **traffic**, and potentially **road safety** issues (including relating to cyclists, horse riders and pedestrians), along rural lanes. There are also specific sites where the potential to achieve **site access** that is both safe and suitable in wider terms is not yet entirely clear. This includes:
  - West of Loxwood - there is currently no known way of achieving access from the north, which might well be necessary in order to support a ~1,000 home scheme;
  - North of Kirdford - it seems likely that all development would need to be accessed via HKD0002, which has planning permission for 54 homes (ref. 19/00086/FUL), and where construction of the access road appears to have begun, which leads to uncertainty regarding the capacity of the access road and junction onto Plaistow Road to accommodate significant additional traffic from additional homes (it is also noted that Kirdford Chapel is adjacent to the access junction, although this is not a historic building); and
  - East of Wisborough Green – the potential for two points of access can be envisaged; however: access onto Newpound Lane would be constrained on account of the narrow rural character of the lane and the need to avoid conflicts with primary school traffic; whilst access onto Glebe Way would be constrained as this is a narrow cul-de-sac, seemingly designed to support traffic from just a small number of homes.

  Finally, there is a need to note that both Waverley Council and Surrey County Council responded to an informal consultation in early 2022 stating concern regarding higher growth in the northeast plan area on transport grounds, highlighting the poor public transport connectivity and general rurality of the area.
- **Water** – the matter of **water neutrality** has already been introduced above, in Section 5.2. In short, despite a Mitigation Strategy now having been agreed, water neutrality remains a key constraint to higher growth.

  With regards to **water quality**, the primary consideration is understood to be the capacity to treat additional wastewater in in the Plaistow / Ifold / Loxwood area, where the waste water treatment works is currently operating above capacity (hydrological capacity and/or environmental capacity of the receiving watercourse). There is typically potential to deliver capacity upgrades, but there can be challenges, hence there is a case for directing growth to locations with existing capacity, with a view to avoiding the risk of capacity breaches.

In **conclusion**, the appraisal shows all the reasonable alternative growth scenarios to be associated with pros and cons, and it is for the Council to weigh these in balance. There are clear challenges to delivering higher growth, but equally lower growth scenarios would lead to unmet housing needs, and there is currently limited evidence to suggest when or where unmet needs would be provided for in practice.

7 The preferred growth scenario

7.1 Introduction

7.1.1 As discussed, the aim of Section 6 is not to appraisal alternative scenarios in order to arrive at a conclusion on which is best, or 'most sustainable' overall. Rather, it is the role of the plan-making authority to arrive at that conclusion, informed by the appraisal. This section presents the response of CDC officers to the two growth scenarios appraisals and, in turn, officers' reasons for supporting the preferred approaches.

7.2 Southern plan area

The following statement gives officers' reasons for supporting **Scenario 3** (completions, commitments, windfall and constant allocations plus an allocation at Westhampnett) in light of the appraisal.

Statement provided by officers

"The appraisal shows Scenario 3 to perform well, with few drawbacks relative to the reasonable alternatives. Higher growth at Southbourne, in place of an allocation at Maudlin Farm, Westhampnett, may be identified as preferable in a number of respects; however, there are significant concerns with regard to deliverability of a higher quantum of housing. Due to the need for infrastructure upgrades to the wastewater treatment works at Thornham, development is unlikely to be deliverable in this area in the first five years of the plan period and further development here will lead to a greater proportion of the overall development proposed by the plan being delivered later in the plan period. Given the resultant late delivery of development, it is therefore unlikely that a greater number of dwellings that 1,050 will be deliverable within the lifetime of the plan. It should also be noted that there are minor variances in councils preferred distribution of development, most notably parish allocations of 30 dwellings at Fishbourne and Westbourne, instead of 50 (as assumed above)."

7.3 Northeast plan area

7.3.1 The following statement explains CDC officers' reasons for supporting a blend between **Scenarios 1 and 2** (with an adjustment for Loxwood) in light of the appraisal. Specifically, there is support for: Lower growth at Kirdford and Plaistow and Ifold; and Higher growth at Loxwood (adjusted) and Wisborough Green.

Statement provided by officers

"Meeting housing needs locally is a priority issue. However, the appraisal serves to highlight a wide range of drawbacks to supporting the highest levels of growth, including a number that are highly significant.

These drawbacks relate both to the unsuitability of the northeast plan area as a whole, as a location for significant growth, including around unsustainable travel patterns and risks to achieving water neutrality (at least under the highest growth scenario; this is also an issue for the timing of growth); and settlement and site-specific considerations, including at Kirdford, Wisborough Green and Crouchlands Farm. At all of these locations it is difficult to envisage the potential to justify the impacts that would result from significant growth, given assumed growth locations / sites, and knowledge of scheme proposals.

As the higher and highest growth scenarios at Loxwood may involve a expansion to the west of Loxwood, it has been necessary to consider this in more detail, notwithstanding that it would be for the neighbourhood plan to consider any site allocations. With regards to strategic expansion to the west of Loxwood, there are fewer constraints to growth here than is the case for the other villages. However, there is insufficient confidence regarding deliverability of the full (~1,000 home) scheme. Turning to the 400 home scheme assumed by the appraisal under a higher growth scenario, it is notable that latest information from the site promoters is that the site capacity is 325 homes. Furthermore, it is considered more reasonable for the neighbourhood plan to consider the potential for any allocation of this site to potentially include a first phase for around 150 homes, rather than supporting delivery of the site in its entirety in the plan period. This would address concerns regarding deliverability (market saturation) and will encourage a masterplanned approach for the site as a whole (which does form an obvious parcel, with clear boundaries). Finally, the capacity of smaller sites around the village is 70, which brings the total preferred parish allocation for Loxwood to 220 homes.

Having regard to the above, the preferred scenario provides a blend between Scenario 1 and Scenario 2 (as introduced above), with an downward adjustment for Loxwood (from the higher scenario).

Part 2: What are the appraisal findings at this stage?

8 Introduction to Part 2

8.1.1 The aim here is to present an appraisal of the proposed submission plan, as currently published.

8.1.2 In practice, the appraisal builds upon the appraisal of the preferred growth scenarios for the southern plan area (Scenario 3) and the northeast plan area (a blend between Scenario 1 and Scenario 2) presented above, within Section 6. Specifically, the appraisal presented here builds upon the appraisals presented in Section 6 by giving added consideration to:

- Supply components (allocations and parish allocations) that are a 'constant' across the growth scenarios appraised in Section 6; and
- Thematic policies (both district-wide and site-specific).

Overview of the plan

8.1.3 The plan presents policies under the following headings:

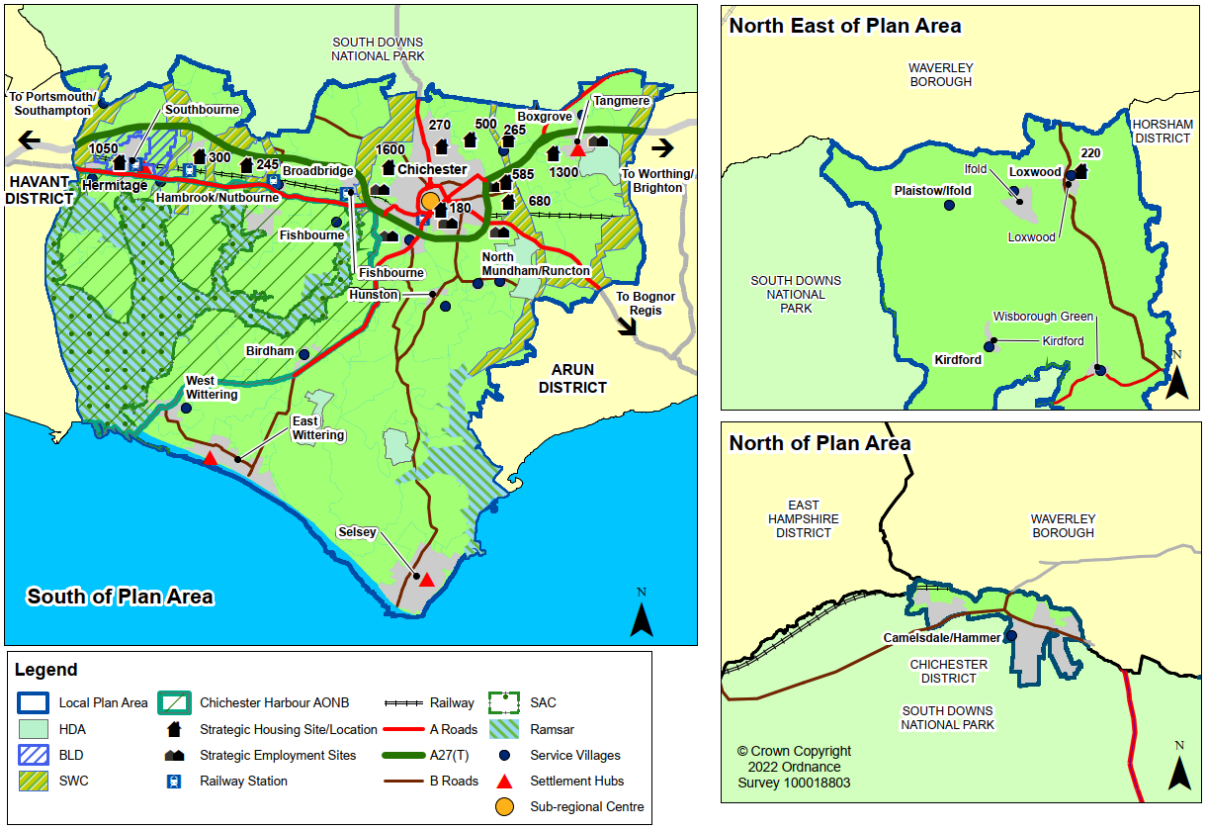
- Spatial Strategy
- Climate change and the natural environment
- Housing
- Place-making, health and well-being
- Employment and economy
- Transport and accessibility
- Infrastructure
- Site and area based policies

8.1.4 The appraisal presented below focuses on the spatial strategy and, in particular, the package of new proposed supply components (allocations, parish allocations and a broad location for development) that are proposed in order to meet development needs (as far as possible) and wider plan objectives. As such, the appraisal focuses on policies presented under the Spatial Strategy, Housing and Employment and economy headings, and specifically those policies dealing with new proposed supply. Existing committed sites that are being caried forward can be assumed part of the baseline, for the purposes of appraisal.

8.1.5 This approach is taken mindful that it is the spatial strategy that overwhelmingly generates significant effects on the baseline. Thematic policies are less likely to generate significant effects, but rather have a supporting role, serving to mitigate the impacts of growth and ensure that growth-related opportunities are realised. In term, the appraisal seeks to give proportionate consideration to thematic policies.

8.1.6 The spatial strategy is reflected in a key diagram, which is reproduced below as Figure 8.1.

Figure 8.1: The key diagram



Appraisal methodology

8.1.7 Appraisal findings are presented across 13 sections below, with each section dealing with a specific sustainability topic. For each of the sustainability topics in turn, the aim is to discuss the merits of the proposed submission plan, as a whole, before reaching an overall conclusion on significant effects. Specifically, the regulatory requirement is to "identify, describe and evaluate" significant effects.

8.1.8 Conclusions on significant effects are reached on the basis of available evidence and understanding of key issues and opportunities, mindful of the guidance presented within the Schedules 1 and 2 of the SEA Regulations. Every effort is made to predict effects accurately; however, this is inherently challenging given the high level nature of the local plan. The ability to predict effects accurately is also limited by knowledge gaps in respect of the baseline (both now and in the future). In light of this, there is a need to make considerable assumptions regarding how the plan will be implemented 'on the ground' and the effect on particular receptors. Assumptions are discussed in the appraisal text where necessary.

8.1.9 The appraisal aims to strike a balance between, on the one hand, a need to be systematic, and on the other hand, a need for conciseness and accessibility. The aim is *not* to systematically discuss each and every element of the plan in respect of each element of the SA framework.

9 Appraisal of the proposed submission plan

9.1.1 This section presents an appraisal of the proposed submission plan as whole. The appraisal is presented as a series of narratives under the SA framework (see Section 3).

9.2 Accessibility (to community infrastructure)

Objective: Provide access to services and facilities

9.2.1 The discussion presented in Section 6 is tentatively supportive of the proposed strategy for the southern plan area, but raises some concerns with regards to support for a higher growth strategy for the northeast plan area. Specifically, the proposal is for the **northeast plan area** to support 6.6% of total housing growth over the plan period, which is a higher proportion than planned for in the adopted local plan (4%), or proposed at the time of the Preferred Approach consultation in 2018 (4%). However, by way of context, it is important to recall that the northeast plan area is home to around 7% of the population of the plan area.

9.2.2 Key matters discussed in Section 6, in respect of the proposed strategy, include:

- **Southbourne** – a strategic scale scheme is supported, from a perspective of seeking to ensure investment in new and upgraded infrastructure, including community infrastructure, alongside new housing. The proposed policy requires: *"adequate provision of supporting infrastructure including education provision, community facilities and transport in accordance with the most up to date Infrastructure Delivery Plan."* Also, the supporting text explains: *"This is likely to include a new two form entry primary school with potential for expansion, expansion of secondary school provision, early years' childcare provision, community hall/centre and expansion of doctors' surgery plus flexible space for employment/small-scale leisure use."* There are important differences between land to the west and east of Southbourne, in terms of inherent locational opportunities for delivering new and upgraded infrastructure, hence it could be suggested that consideration might be given to adding further specificity through the local plan policy. However, there will be good potential to take steps to ensure that opportunities are fully realised through a subsequent Southbourne NP or a Site Allocation Plan.
- **Loxwood** – in theory, there could be a degree of concern regarding piecemeal growth here leading to opportunities missed in respect of securing investment in new and upgraded infrastructure, including community infrastructure. It is understood that there are 'accessibility' arguments (around primary and secondary school capacity), and wider 'communities' arguments for a modest scale of growth (or, at least, a slower rate of growth, i.e. growth over a longer period of time), but there is a need to consider whether there could be a trade-off, in terms of the landowner's willingness to fund infrastructure and/or make land available for non-housing uses. Having said this, and as discussed in Section 6, even under a scenario whereby there is support for higher growth to the west of Loxwood in the plan period (e.g. 350 homes in the plan period, instead the assumption of a 150 home scheme, which underpins the current assumed parish allocation of 220 homes),[24] it is not clear what additional community infrastructure benefits would be achieved, and there could be issues in terms of school capacity. It is also noted that the Loxwood Neighbourhood Plan might choose to allocate a site for more than ~150 homes, in order to secure a comprehensive scheme; however, this is unlikely, as this would amount to a high growth scenario for the village as a whole (given an assumption that ~70 homes would also come forward at smaller developable HELAA sites), feasibly leading to pressure on school capacity.
- **Kirdford** – a 50 home parish allocation over-and-above recent and committed growth amounts to significant growth for a village that lacks a primary school (with the school having closed in 2001), and it is not possible to envisage any clear community infrastructure-related growth opportunity. However, as discussed in Sections 5 and 6, it is not clear that there is a reasonable lower growth scenario.
- **The northern plan area in general** – the appraisal in Section 6 supports lower growth overall, from an 'accessibility' perspective, but explains: *"there is considerable uncertainty given the risk of unmet needs being generated that, in turn, must be met in locations with equal or greater accessibility challenges."*

[24] It is important to recall that there can be no certainty that the parish allocation will lead to a large (e.g. 150 home) urban extension to the west of Loxwood, on the basis of land availability (as understood from the HELAA), this can be anticipated.

9.2.3 With regards to proposed supply elements that are a not a focus of the appraisal in Section 6, because they are held constant across the reasonable alternative growth scenarios, an immediate consideration is the proposed allocation of **Land East of Chichester** for a 680 home residential-led scheme. This site is supported, given a proposed requirement for: *"A neighbourhood centre incorporating local shops, a community centre, flexible space for employment/ small-scale leisure uses and a one-form (expandable to two-form) entry primary school with provision for early years/ childcare and special educational needs..."*

9.2.4 Also, there is a degree of support for **Highgrove Farm** (245 homes, over-and-above the permitted site for 50 homes) given a requirement for a "community building". However, it is understood that school capacity will be provided by a new school at Southbourne (which is some way distant; in contrast, Bosham Primary School is nearby). The situation in respect of primary school capacity in this area (the A259 corridor west of Chichester) is obviously evolving given new capacity through the West of Chichester urban extension.

9.2.5 Similarly, there is a need to consider the scale of the parish allocation (over-and-above completions and commitments) assigned to **Chidham and Hambrook**. As discussed in Appendix V, the intention at the Preferred Approach stage was for "a high quality development to be masterplanned" so as to deliver a relocated primary school and *"improved community facilities including recreation, open space...."*

9.2.6 With regards to **thematic policies**, numerous are supportive of 'accessibility' objectives and no significant tensions can be highlighted. Key policies include:

- I1 (Infrastructure provision) seeks sufficient infrastructure provision (e.g. education, health and sustainable transport) to cope with the demand generated by new development. It also aims to improve accessibility to necessary facilities and services by sustainable travel modes from the outset.
- P16 (Health and wellbeing) seeks new enhanced healthcare facilities through developer contributions. The policy also encourages improved cycling and pedestrian routes as part of an integrated green infrastructure (GI) linking key settlements and service centres.
- Policy P17 (New and existing local and community facilities including shops) promotes the provision of new/ improved community facilities whilst safeguarding existing ones.
- NE12 (Development around the coast) and NE14 (Integrated coastal zone management for the Manhood Peninsula) seek improved access to leisure and recreational opportunities through improved sustainable transport infrastructure such as cycle routes and the National Coastal Footpath.
- P4 (Layout and access) promotes pedestrian and cycle friendly developments seeking pedestrian/ cycle priority environments.
- The Plan seeks transport measures (T1 Transport infrastructure and T2 Transport and development) to mitigate impact of development through highway improvements (e.g. the A27) and the promotion of sustainable transport modes such as public transport, cycling and walking.
- Accessibility to open/ recreational space is sought through policy P15 (Open space, sport and recreation) which seeks improved access to public open space and recreation facilities and the provision of links to the green infrastructure (GI) network.

9.2.7 In **conclusion**, the plan directs a good level of growth to locations with the potential to deliver new / upgraded community infrastructure alongside housing, but does also distribute growth across eight parish allocations, including: 220 homes to Loxwood; 156 homes to Chidham and Hambrook; and 50 homes to Kirdford (where there is no primary school). N.B. all figures relate to supply over-and-above completions, commitments and windfall. In each case there are no significant concerns regarding community infrastructure capacity, but there is still a need to be mindful of alternative strategies with a greater focus on directing housing growth so as to secure new/upgraded strategic community infrastructure.

9.2.8 Another factor is a degree of uncertainty regarding precisely what will be delivered at / achieved through strategic expansion of Southbourne, although this is inevitable, because a broad location (instead of a detailed allocation) is a practical necessity, and appropriate as growth here will be later in the plan period.

9.2.9 The proposed suite of development management policies is strong, and it is noted that the plan has been subject to viability testing, such that there are no concerns regarding development viability proving to be a barrier to delivering new / upgraded community infrastructure. Overall, there are arguments for predicting positive effects, recognising that the baseline situation is one whereby development continues to come forward in a relatively unplanned way (in line with recent experiences across the plan area); however, on balance, **neutral effects** are predicted.

9.3 Air / environmental quality

Objective: Improve air quality

9.3.1 The discussion presented in Section 6 is supportive of the proposed strategy for the southern plan area, and does not raise any significant concerns regarding the strategy for the northeast plan area.

9.3.2 Key matters discussed in Section 6, in respect of the proposed strategy, include:

- **Southern plan area** - the preferred strategy (supply totalling the agreed 537.5 dpa, so slightly above the 535 dpa 'cap' agreed with National Highways) is associated with a degree of risk in terms of junction capacity, given the proposed 'monitor and manage' strategy (see Section 5.2). There is just one small air quality management area (AQMAs) in the centre of Chichester; however, severe traffic congestion at A27 junctions – were this to arise – could potentially lead to problematic localised air pollution.
- **Maudlin Farm, Westhampnett** – is notably adjacent to the A27, hence the proposal is to require integration of: *"suitable noise mitigation measures into the design and layout to address impacts arising from proximity of the site to the A27 and the Goodwood Motor Circuit and Airfield"*.

9.3.3 With regards to proposed supply elements that are a not a focus of the appraisal in Section 6, because they are held constant across the reasonable alternative growth scenarios, key considerations are:

- **Land East of Chichester** (680 homes) – partly comprises a former landfill sites, but remediation is a policy requirement. The supporting text explains: *"The land in the south of the site accommodates a restored landfill site. Landfilling ceased some time ago and evidence will be required to demonstrate there is no significant risk to human health through site investigations and any required remediation strategy will need to be provided to address any pre-existing land (soil, gas and water) contamination on any existing or adjacent land."*
- The site is also adjacent to the railway line, but it is noted that noise mitigation is not a policy requirement (but is discussed in the supporting text). Another proposed allocation adjacent to the railway line is the **Southern Gateway Regeneration Area**, where the proposed policy states: *"Given parts of the site are adjacent or close to the railway and to major roads, noise reduction measures are likely to be required. Such measures must be considered as an integral part of the design process."*

9.3.4 With regards to **thematic policies**, several are supportive of 'air and wider environmental quality' objectives and no significant tensions can be highlighted. Key policies include:

- NE22 (Air quality) requires development to minimise traffic generation through appropriate location, design and provision of access to sustainable transport. Where negative impacts on areas of poor air quality are likely, an air quality assessment would be required, identifying mitigation measures.
- NE23 (Noise) and P6 (Amenity) seeks to reduce noise pollution through attenuation, distance, screening, or layout/orientation stipulating that development should seek to achieve an absence of significant noise disturbance. A noise assessment setting out mitigation measures would be required where development is likely to result in noise disturbance.
- Several policies promote sustainable travel such as T2 (Transport and development) and T3 (Active travel – walking and cycling provision). The strategic site allocations seek the provision of bus services and pedestrian/ cycle routes, including linking new development to Chichester city centre.
- Policies P1(Design principles) and P4 (Layout and Access) promote EV by dealing with how EV charging can be effectively delivered as part of development, thus facilitating the switch to electric vehicles.

9.3.5 In **conclusion**, whilst traffic congestion – particularly at A27 junctions – is a key consideration for the local plan, and is discussed further below, even severe traffic congestion would not necessarily translate into significant concerns in respect of air quality, being mindful of the timing of growth relative to the national switch-over to electric vehicles. Aside from air pollution, an important consideration is the proposal to direct a significant proportion of growth to locations adjacent to the A27 or a railway line, and there is a need to highlight the need for remediation of contaminated land (former landfill) at Land east of Chichester.

9.3.6 The proposed suite of development management policies is strong, including clear requirements for noise attenuation measures, air quality impact assessments (to identify required mitigation measures) and requirements around 'sustainable transport' infrastructure upgrades alongside new homes, although there is a need to be mindful of the cost / development viability implications of all such measures. **Neutral effects** are predicted overall.

9.4 Biodiversity

Objective: Protect and enhance biodiversity and contribute to nature recovery

9.4.1 The discussion presented in Section 6 is supportive of the proposed strategy for the southern plan area, but raises a degree of concern regarding the strategy for the northeast plan area.

9.4.2 Key matters discussed in Section 6, in respect of the proposed strategy, include:

- **Southern plan area** – in many respects the settlements and locations / potential locations for growth in question are mostly subject to fairly limited biodiversity constraint, in terms of proximity / functional links to internationally, nationally and locally designated habitats (also non-designated priority habitat); however, **nutrient neutrality** is a key issue.

  In this light, the difficult decision has been made to support higher growth to the east of Chichester, and specifically at **Westhampnett**, where the nutrient neutrality constraint does not apply. The site is overall considered to be subject to low biodiversity constraint, but there are some sensitivities (see Section 6).

- **Southbourne** – which is a primary focus of growth, is associated with a notably low density of priority habitat, and potentially also limited constraint in terms of historic field boundaries, in comparison to other locations under consideration for higher growth (e.g. nearby Chidham and Hambrook). Also, the withdrawn neighbourhood plan notably proposed a 'green infrastructure led' strategic urban extension to the east of the village (see the GI proposals here), which might be taken forward through the broad location. With regards to land west of Southbourne, a potentially significant constraint relates to agricultural fields providing habitat for internationally important populations of Brent Geese.

- **Northeast plan area** – it is not clear that there is any significant risk of impacts to a nationally designated SSSI or a locally designated Site of Importance for Nature Conservation (SNCI). There could be a degree of risk to ancient woodland, and other non-designated priority habitats, but the proposed lower growth strategy for Kirdford is supported in this respect.

- **Loxwood** – there could well be a focus of growth to the west (albeit there can be no certainty), where there is considered to be relatively low sensitivity, from a biodiversity perspective, in the context of a constrained sub-region. However, dependent on the scale and configuration of growth, there may be a need for careful consideration of the adjacent / nearby river and canal corridor.

9.4.3 With regards to proposed supply elements that are a not a focus of the appraisal in Section 6, because they are held constant across the reasonable alternative growth scenarios, a key consideration is **Land East of Chichester** (680 homes). Firstly, it is important to note that very careful consideration has been given to the scale and extent of the allocation, in consultation with the site promoters, mindful of the adjacent wildlife corridor, but also balancing the need to secure a suitably comprehensive scheme (e.g. with a local centre and Gypsy and Traveller pitches). Secondly, the site is notable for detailed proposed policy requirements, which serve to give confidence regarding the potential for biodiversity impacts to be avoiding / minimised and opportunities realised.

9.4.4 With regards to **thematic policies**, numerous are supportive of 'biodiversity' objectives and only one notable tension can be highlighted. Key policies include:

- Policy NE19 (Nutrient neutrality) is a key policy. It requires that development likely to lead to effluent discharge (surface water/ non main draining or wastewater treatment) into Chichester and Langstone Harbour SPA/ Ramsar to demonstrate nutrient neutrality over the lifetime of the development.

- Equally, for the northeast plan area, NE17 (Water neutrality) is a key policy. It requires all development within the Sussex North Water Resource Zone (WRZ) to demonstrate water neutrality through efficient design and offsetting net additional water usage. See further discussion below, under 'Water'.

- Policy NE5 (Biodiversity and biodiversity net gain) largely deals with national policy, and notably sets out a need to achieve 10% biodiversity net gain, which is the statutory minimum requirement set to be implemented under the Environment Act 2021. It is quite common for authorities to require 20%, and the viability implications are quite modest (in comparison to some other policy interventions); however, in this instance, it is recognised that there are other policy priorities, notably around transport infrastructure upgrades, nutrient neutrality, water neutrality and affordable housing.

  From a pure 'biodiversity' perspective (i.e. viewing biodiversity considerations 'in a silo'), it is recommended that consideration is given to requiring 20% biodiversity net gain. However, it is recognised that there would be implications for viability and, in turn, other competing objectives.

- Policy NE4 (Strategic wildlife corridors) is considered highly proactive ahead of a Local Nature Recovery Strategy (LNRS) for the area (e.g. West Sussex). The configuration of the wildlife corridors has been developed on the basis of a rigorous evidence based process (see Section 5.2).

9.4.5 In **conclusion**, biodiversity has clearly been a major factor influencing spatial strategy / site selection. Growth is mostly directed to locations with limited biodiversity sensitivity; the nutrient neutrality constraint has been a key influence on the strategy for the southern plan area; and the quantum of growth in the northeast plan area is well below the level assumed by the recent Water Neutrality Mitigation Strategy.

9.4.6 Also, the approach of designating strategic wildlife corridors is considered highly proactive. However: the proposal is to require only 10% biodiversity net gain; the possibility of adding more detail to site and area-specific policy might be envisaged (to increase confidence around avoiding/mitigating impacts and realising opportunities); and the strategy of relying on parish allocations inevitably gives rise to a degree of uncertainty (as specific site allocations are not known). On balance, **neutral effects** are predicted.

9.5 Climate change adaptation

Objective: Enable adaptation to climate change

9.5.1 The primary consideration here is flood risk.

9.5.2 The discussion presented in Section 6 is supportive of the proposed strategy for the southern plan area, and does not raise any significant concerns regarding the strategy for the northeast plan area.

9.5.3 Key matters discussed in Section 6, in respect of the proposed strategy, include:

- **Southern plan area** – flood risk is a widespread issue across the southern plan area and across the wider coastal sub-subregion. Flood risk has been a key influence on spatial strategy and site selection (in particular, see the discussion of arriving at reasonable growth scenarios in Section 5). Maudlin Farm, Westhampnett, is associated with a degree of surface water flood risk, but this is unlikely to create a significant challenge for masterplanning, given the potential for sustainable drainage systems (SuDS). There is also extensive groundwater flood risk, including affecting several proposed allocations, but this can typically be addressed at the development management stage. It is recommended that site-specific policy is reviewed for consistency in respect of groundwater flood risk.
- **Northern plan area** – overall, there are fairly limited concerns in respect of flood risk, although one consideration is land to the north of Kirdford, where there is a small stream corridor.

9.5.4 With regards to proposed supply elements that are a not a focus of the appraisal in Section 6, because they are held constant across the reasonable alternative growth scenarios, an overriding key consideration is **Southern Gateway Regeneration Area** (180 homes), which is affected by significant flood risk. The SFRA Level 2 (December 2022) reaches a clear conclusion:

"The assessment indicates that the principle of development can be supported. The site is shown on the available modelling to be defended from fluvial flood risk for the present day 1% Annual Exceedance Probability (AEP) flood, however future fluvial flooding is possible due to the impact of climate change during the lifetime of the development. The flood risk element of the Exception Test is likely to be passed if an appropriate commitment should be secured for the improvement of the River Lavant flood alleviation scheme to provide a standard of protection for the life time of the development that includes climate change. Safe access and egress should be secured in areas at residual risk or in a climate change scenario. On-site flood mitigation measures will be required to protect occupants for the lifetime of the development and allowing for climate change, in both climate change and residual risk scenarios (this may include raising finished floor Level and other forms of property flood resilience). Space for green infrastructure should be considered in the areas of highest flood risk."

A detailed site specific policy is proposed, particularly for the Police Field part of the site (which is greenfield, and is proposed for 70 homes across a 1.45 ha site, i.e. an average density of 47 dph). The proposed policy states:

"Parts of the site fall within areas of high fluvial flood risk, where flood storage capacity will need to be retained. A site-specific flood risk assessment should demonstrate that development will be safe for its lifetime taking account of the vulnerability of its uses, without increasing flood risk elsewhere and, where possible, will reduce flood risk overall. This should have regard to the measures identified in the most recent Level 2 SFRA. Development must be designed and laid out to take account of this, with vulnerable

uses located outside of the areas at most risk of flooding and incorporating mitigation measures to minimise the risk of flooding from all sources. This means that residential development should be focused on the northern part of the field, and residential development in Flood Zone 3a should be minimised. Flood mitigation measures and drainage features must be integrated into the development in a manner which facilitates the use of SuDs as much as possible (subject to the findings of the site-specific flood risk assessment), the achievement of a high standard of design and layout, and supports biodiversity net gain."

Housing-led urban regeneration schemes in areas of flood risk are not uncommon nationally, given good potential to mitigate flood risk, including by: avoiding vulnerable uses on the ground floor; measures to ensure safe access / egress; flood resistant design (e.g. to prevent water from entering); and flood resilient design (e.g. to ensure structural integrity is maintained and to facilitate drying / cleaning). However, given climate change concerns, there is nonetheless a need to question the merits of directing new homes to areas that have historically been seen as appropriate for less vulnerable uses. There is also a need to note that the Government's Planning Practice Guidance on flood risk has recently been updated, including in respect of downstream impacts, for example stating: *"Whilst the use of stilts and voids below buildings may be an appropriate approach to mitigating flood risk to the buildings themselves, such techniques should not normally be relied upon for compensating for any loss of floodplain storage. This is because voids do not allow water to freely flow through them, trash screens get blocked, voids get silted up, they have limited capacity, and it is difficult to stop them being used for storing belongings or other materials."* Downstream flood risk is not necessarily a major concern in this instance, but is a consideration.

9.5.5 Aside from the Southern Gateway Regeneration Area, it is also noted that one of the HELAA sites taken into account when arriving at a decision on the scale of the **Chichester parish allocation** (270 homes) is significantly affected by flood risk; however, in practice, there is little reason to assume that the Chichester Neighbourhood Plan will ultimately allocate this site for residential uses.

9.5.6 With regards to **thematic policies**, several are supportive of 'climate change adaptation' objectives, and no significant tensions can be highlighted. Key policies include:

- Policy NE15 (Flood risk and water management) seeks to direct development to areas at lowest flood risk, with the sequential test and exception tests applied where relevant. Development must not lead to increased flood risk elsewhere, and high quality SuDS must be employed to reduce surface water flow.
- Policy NE14 (Integrated Coastal Zone Management for the Manhood Peninsula) is also obviously key from a climate change adaptation / resilience perspective. The following requirement is high level, but is supplemented by discussion in the supporting text: *"Provide the means of supporting regeneration which allows for climate change resilience and adaptation and nature recovery for the Manhood Peninsula, whilst aiding growth of existing local economy employment areas."*
- Policy P14 (Green infrastructure) seeks the provision of connected GI through new development. GI provides multiple climate change adaptation benefits such as reducing the urban heat island effect, providing shading, slowing down the rate of surface water runoff and enhancing ground permeability.
- Policy P1 (Design Principles) – requires *"measures to adapt to climate change, such as the provision of green infrastructure, sustainable urban drainage systems (SuDS), suitable shading of pedestrian routes and open spaces, a mixture of drought and rain tolerant native planting and the incorporation of green or blue roofs or green walls."* There is the potential to add more detail in respect of building design measures aimed at avoiding overheating risk, for example in respect of ensuring good ventilation.

9.5.7 In **conclusion**, work in respect of spatial strategy and site selection has had a clear focus on accounting for flood risk, which is a primary climate change adaptation consideration, and a very significant issue across the southern plan area, most notably on the Manhood Peninsula. The Southern Gateway Regeneration Area is the key proposed allocation subject to flood risk, with the key issue being the proposal to support development on the greenfield Police Field part of the site. However, there will be good potential to take steps to avoid and mitigate flood risk, and residual flood risk must be balanced against the wide-ranging benefits of the regeneration scheme, e.g. noting nearby Chichester train station.

9.5.8 The proposed suite of thematic development management policies is strong, although the possibility of setting more detailed requirements in respect of 'sustainable design' (notably with an increased focus on avoiding overheating risk, which is a key climate change adaptation consideration) might be envisaged. Policies also assist with a ensuring a clear framework under which further work might be undertaken in respect of long term planning for those parts of the Manhood Peninsula that are protected by coastal defences. Overall **neutral effects** are predicted.

9.6 Climate change mitigation

Objective: Achieve zero net increase in greenhouse gas emissions

9.6.1 This is a key issue for the local plan, which must demonstrate a suitably ambitious approach in respect of minimising greenhouse gas emissions from both transport and the built environment.

9.6.2 The discussion presented in Section 6 does not raise any major concerns with the proposed strategy for the **southern plan area**, but suggests that a better performing scenario might involve higher growth at Southbourne in place of allocating Maudlin Farm, Westhampnett, given an assumption that larger-scale strategic developments can tend to be associated with a built environment decarbonisation opportunity.

9.6.3 With regards to the **northeast plan area**, there is a degree of concern associated with distributing growth across smaller sites - which are not likely to be associated with a particular built environment decarbonisation opportunity - and also the total quantum of growth directed to this rural area, where car dependency (and, in turn, per capita greenhouse gas emissions from transport) is undoubtedly high.

9.6.4 Key matters discussed in Section 6, in respect of the proposed strategy, include:

- **Transport emissions** – one key consideration is support for the strategy of providing for 535 dpa in full in the southern plan area (i.e. the agreed 'cap' on growth, as discussed in Section 5.2), in order to reduce pressure for growth elsewhere at locations with high car dependency or a need to travel longer distance by car, including the northeast plan area.

  Another consideration in the southeast plan area is the degree to which growth is directed to locations that will support walking and cycling and a degree of local trip internalisation. This matter is a focus of discussion above ('Accessibility') and below ('Transport').

  With regards to the northeast plan area, local accessibility to community infrastructure and sustainable transport connectivity are key considerations that have influenced the strategy, with 'lower' growth (see Section 6) supported at the two parishes likely to be associated with highest car dependency.

  Overall, it is difficult to reach a conclusion on the merits of the proposed strategy, from a perspective of seeking to minimise per capita greenhouse gas emissions from transport. On the one hand, the northeast plan area is notably rural; however, on the other hand, lower growth would generate increased unmet needs, which might ultimately be met at locations that perform poorly in transport terms.

- **Built environment emissions** – directing strategic growth to **Southbourne** is supported, although a higher growth strategy might feasibly lead to increased decarbonisation opportunity still, e.g. noting that the Government has discussed 1,500 homes as a minimum scale of growth for Garden Communities. The proposed site-specific policy does not include an explicit focus on decarbonisation, but there is strong support for the following statement:

  "With a range of ownerships… it is imperative that development should be comprehensively masterplanned to ensure sustainable development can be achieved. Piecemeal development that does not take account of the need for wider development in the broad location and prejudices opportunities for cumulative issues, particularly relating to infrastructure, to be addressed will not be supported."

9.6.5 With regards to proposed supply elements that are a not a focus of the appraisal in Section 6, because they are held constant across the reasonable alternative growth scenarios, key considerations are:

- **Land East of Chichester** (680 homes) – is located between main road / bus corridors, but is overall relatively well connected to Chichester city centre and railway station, plus there will be the potential to support a degree of trip internalisation, with the proposal to deliver a local centre within the scheme.
- **Highgrove Farm** (245 homes) – is within walking distance of a train station.
- **Southern Gateway** (180 homes) – is clearly supported from a perspective of seeking to minimise per capita greenhouse gas emissions from transport. Higher density mixed use development can also give rise to a built environment decarbonisation opportunity, but it is not clear that there is a particular opportunity in this instance, including as flood risk could limit density on some parts of the site.

9.6.6 With regards to **thematic policies**, the key point to note is in respect of built environment emissions. Specifically, it is important to note that the proposal is not to require developments to achieve operational emissions standards over-and-above those required under **Building Regulations** (which are in in the process of being tightened, to the point where all development is required to achieve the 'Future Homes Standard'). It is quite common practice for local plans to set / propose policies to supplement the Building Regulations, with a view to ensuring a suitably ambitious approach to built environment decarbonisation, in line with local decarbonisation targets. However, this is typically in the context of a locally set net zero target date well in advance of the national target date of 2050. For Chichester, consideration has been given to the cost / viability implications of setting requirements that go beyond Building Regulations, but the decision reached is that this cannot be justified, given other major competing funding priorities locally, including around A27 upgrades, nutrient neutrality, water neutrality and affordable housing.

Also, the local plan could be partially justified in its proposed approach of not seeking to supplement Building Regulations on the basis that national practice – in respect of setting clear policies through local plans – is evolving at the current time, with a high degree of inconsistency between plans (and their supporting evidence base studies), which creates a complex and confusing policy environment. In this light, the fact that the plan says relatively little on the matter of built environment decarbonisation, potentially leads to an opportunity missed in respect of communicating the issues / opportunities to a wide audience, e.g. relatively simple messages such as around the importance of a rapid move from gas heating to electric heating (heat pumps), the potential to realise opportunities for heat networks through higher density and strategic scale development, and also the need to realise opportunities for decentralised power systems, linking supply (solar PV) and demand (heat pumps, EV charging) via use of battery storage and smart technologies, in order to minimise strain on the national grid. The design principles policy does cover matters such as sustainable design, layout, and embodied energy and energy performance, but there could potentially be further information provided.

By way of a contrast, the emerging Stafford Borough Local Plan is an example of an emerging local plan that includes a major focus on built environment decarbonisation, with detailed work through a viability study considering how ambitious requirements might be set alongside wider policy requirements, and explicit trade-offs made, including in respect of affordable housing. Policy 4 of the emerging Stafford Local Plan has not yet been the subject of examination, but is commendably concise, including with a clear focus on: A) space heating demand of less than 15kWh/m2/yr; B) overall energy use of less than 35kWh/m2/yr; C) on-site renewable generation equivalent to onsite use; and D) offsetting only if absolutely necessary. This is in line with the approach advocated by the UK Green Building Council.

9.6.7 Other than operational built environment emissions, minimising **non-operational emissions**, including from the embodied carbon in building materials, is increasingly a focus of attention nationally, including with a focus on reusing buildings ahead of demolition where possible, and also supporting 'modern methods of construction', including modular buildings, which can serve as an argument in favour of strategic growth locations / concentrations. The plan does not discuss reusing existing buildings ahead of demolition (other than in the context of listed buildings), or modern methods of construction (this is understandable, as the sub-region is not a high growth area in the national or regional context), but embodied emissions are discussed in two places.

9.6.8 In conclusion, there is a need to flag **moderate or uncertain negative effects**, mindful of the urgency of the issue (albeit on the other hand, Chichester District has not set a net zero target date ahead of the national 2050 target date; also, climate change is a global issue such that the significance of local actions is inherently limited). This largely reflects the decision not to set requirements on new development, in respect of built environment decarbonisation, that go beyond the requirement of Building Regulations (albeit it is recognised that there are quite clear arguments in support of this approach, particularly in the Chichester context, given competing funding priorities). However, it is also the case that it is difficult to pinpoint particular ways in which the preferred spatial strategy will help to ensure that built environment decarbonisation opportunities are fully realised (although performance in respect of transport decarbonisation is overall quite strong). Also, the plan says little on a host of built environment decarbonisation issues / opportunities that are often a major focus of local plans, potentially leading to an opportunity missed in respect of communicating the issues and education.

9.7 Communities and health

Objective: Promote health and wellbeing

9.7.1 The aim here is to discuss factors over-and-above those already discussed above, under 'accessibility'.

9.7.2 The discussion presented in Section 6 does not raise any major concerns with the proposed strategy for the southern plan area, but suggests that a better performing scenario might involve higher growth at Southbourne in place of allocating Maudlin Farm. For the northeast plan area, the proposed strategy similarly does not give rise to any significant concerns, but there is an argument for lower growth.

9.7.3 Key matters discussed in Section 6, in respect of the proposed strategy, include:

- The nature and extent of the opportunity at Southbourne has already been discussed above. There are also important considerations in respect of **Chidham and Hambrook**, where the Preferred Approach consultation document proposed a 500 home parish allocation, and emphasised the need for *"a high quality development to be masterplanned"* so as to deliver a relocated primary school and *"improved community facilities including recreation, open space, allotments and a convenience store."* However, there is seemingly no longer any realistic potential for a scheme of this nature, so it could be that the proposed strategy (~150 homes over-and-above completions and commitments) amounts to sub-optimal piecemeal growth, from a communities perspective. See further discussion in Section 6.
- As for **Westhampnett**, it is difficult to point to ways in which the development would directly and significantly benefit the village ('planning gain'), and it is noted that there is high committed growth within the parish (at its western extent, some way distant). Also, the site is adjacent to the A27, achieving good access (including sufficient space for pedestrians and cyclists) could feasibly prove challenging (given the road configuration and historic environment assets) and there are also power lines crossing the site.
- With regards to the **northern plan area**, the discussion in Section 6 considers:
  - New communities - would benefit from living in an attractive rural area, associated with historic villages and high quality countryside, and at a number of the potential growth locations, and strong development viability will help to ensure high quality schemes, that prove very desirable as a place to live, particularly for families, can be envisaged. However, new communities would still face challenges in respect of accessibility, as has been discussed.
  - Existing communities – there is a strong argument for a degree of growth within all four of the parishes, over the plan period, with view to: supporting local services / facilities / retail; delivering housing, to include affordable housing, targeted at meeting local needs; and more generally supporting village vitality. However, it is difficult to identify any significant opportunities associated with higher growth scenarios, around delivering new infrastructure, investment or wider 'planning gain'.

9.7.4 With regards to proposed supply elements that are a not a focus of the appraisal in Section 6, because they are held constant across the reasonable alternative growth scenarios, key considerations are:

- **Land East of Chichester** (680 homes) – a range of matters have been discussed above. Overall there is strong support for this site from a 'communities' perspective, but there are certain issues and challenges, e.g. ensuring the remediation of contaminated land, and integrating Traveller pitches.
- **Southern Gateway** (180 homes) – the 'communities benefits of this site are quite wide-ranging, with the following proposed 'development principle' of key note: *"Provide a mix of uses suitable to this gateway location. At the northern end, close to the city centre, this could include a hotel with café, bar and restaurant uses at ground floor as well as office, residential, leisure and small-scale retail uses. To the southern end, this could include café and restaurant uses facing onto the Canal Basin, providing activity on the ground floor, with office or residential uses on upper floors, as well as town houses."*
- **Parish allocations** – whilst it is difficult to pinpoint any particular 'communities' issues to be addressed, or opportunities to be realised, through the neighbourhood plans that will follow the local plan, and which will allocate specific sites, the Parish Councils that lead the neighbourhood plan-making work will be well positioned to ensure optimal outcomes for their local community. Recent work on the Southbourne NP is a good example of this, also the Chidham and Hambrook NP.

9.7.5 With regards to **thematic policies**, numerous are supportive of 'communities' objectives and no significant tensions can be highlighted. A range of relevant policies are discussed under other headings, and the discussion is not repeated here, for brevity.

9.7.6 In **conclusion**, one of the key defining features of the proposed submission local plan is its strong emphasis on delegating the responsibility for making formal allocations to neighbourhood plans, building on the experience of implementing the adopted local plan (2015). This approach is broadly supported, from a communities' perspective, albeit there can also be strong 'communities' arguments for making allocations through local plans, with a view to ensuring that issues are addressed and opportunities realised. The Southern Gateway Regeneration Area proposal is also strongly supported, from a communities' perspective, and the proposed suite of thematic development management policies is strong. Overall '**moderate or uncertain positive effects**' are predicted.

9.8 Economy and employment

Objective: Support sustainable economic growth

9.8.1 The overriding consideration here is the proposal to meet objectively assessed needs for new **employment land** – as understood from the Housing and Economic Development Needs Assessment (HEDNA, 2022) – in full. This matter is a focus of detailed discussion in Appendix II.

9.8.2 Specifically, in addition to protecting existing employment land (as appropriate) and carrying forward existing employment land allocations, the proposal is to allocate **Land south of Bognor Road**, which has not been published for formal consultation to date, but is judged to perform strongly as a location for strategic employment land in a number of respects, including given very good access onto the A27 and a close association with the Runcton Horticultural Development Area (HDA) to the south (albeit there could also feasibly be some tensions with HDA / horticulture objectives). There is potentially a slight concern regarding an employment land over-supply, noting that the site links very closely to Arun District, which already experiences significant out-commuting to employment outside of the district; however, there is no reason to suggest a significant concern, in this respect. Another consideration is the fact that the HEDNA was completed prior to a final decision being made on growth strategy, which leads to a degree of uncertainty in respect of demonstrating a good balance between housing and employment land locally; however, once again, there are not considered to be any significant concerns, in this respect.

9.8.3 Elsewhere, there will be the potential to deliver some small scale employment within the **Southbourne** broad location for development, and the policy requirement for **Land East of Chichester** is for *"flexible space for employment/ small-scale leisure uses."*

9.8.4 There is a also need to recall the importance of avoiding severe traffic congestion along the **A27** for the achievement of 'economy and employment', both locally and sub-regionally.

9.8.5 A final matter for consideration is providing for the needs of the horticultural industry. Policy E3 (Addressing Horticultural Needs) explains: *"To support the growth of the horticultural industry within the plan area, approximately 204 hectares of additional land for horticultural and ancillary development is required over the plan period… Approximately 67 hectares is identified as required within HDAs to meet predicted horticultural and ancillary development need within HDAs. Large scale horticultural and ancillary development will continue to be focused within the HDAs at Tangmere and Runcton where approximately 47 hectares remains undeveloped. The remaining horticultural development need will be accommodated in a planned extension at the southern boundary of Runcton HDA which comprises some 30 hectares of land."* This approach is strongly supported, from an 'economy and employment' perspective, and it is not clear that there are any significant tensions with wider planning / sustainability objectives. A discussion of developable HELAA sites in this area is presented in Appendix V.

9.8.6 With regards to **thematic policies**, numerous are supportive of 'economy and employment' objectives and no significant tensions can be highlighted. Key policies include:

- Policy E2 (Employment development) seeks to safeguard existing employment land unless there is a demonstrable case for the site no longer being required.
- Policy E4 (Horticultural development) seeks to maintain and enhance the horticultural industry, a feature of the southern part of the plan area by allocating around 204 ha of additional land for this purpose.
- Policy E5 directs main town centre uses to the city and local centres helping reinforce/ enhance their vitality. Policy E6 (Chichester city centre) is also positive as it seeks a balance between retail and other uses including the re-use of upper levels for residential, leisure or community uses provided this does not have adverse effects on existing uses and neighbouring premises. This has the potential to enhance footfall in the area with beneficial consequences to city/ local centre businesses.

- Policy E8 (Built tourist and leisure development) seeks to support the tourism and leisure economy by supporting related developments within / adjoining the settlement boundaries of Chichester city and the settlement hubs provided these pose no adverse impacts on the landscape, heritage assets and nature conservation. Further support is offered through Policy E9, in respect of caravan and camping sites; whilst Policy E10 deals with equestrian development, which is important for the rural economy.
- Policy I1 (Infrastructure provision) notably supports a Gigabit electronic communication networks.

9.8.7 In **conclusion**, the plan should lead to **significant positive effects** on the baseline (which, it is important to recall, is a situation whereby development continues to come forward, but in a less planned way). The key consideration is the proposal to meet objectively assessed development needs through allocation of a new strategic site that judged to perform strongly, from an economy and employment perspective, although it will be important to account for views of Arun District, as received through consultation.

9.9 Historic environment

Objective: Conserve and enhance heritage

9.9.1 The conclusion of the discussion presented in Section 6 is that the proposed strategy for the southern plan area gives rise to a notable degree of tension with historic environment objectives. Conclusions for the northeast plan area are less strong, but there is a preference for a lower growth strategy.

9.9.2 Key matters discussed in Section 6, in respect of the proposed strategy, include:

- At **Westhampnett** there is a cluster of three listed buildings (plus other buildings with historic character) close to the access junction for the proposed allocation, and it is unclear what, if any, junction upgrades would be required. The site also falls within an archaeological priority area. Policy is set to require:

  "Demonstrate that development would not have an adverse impact on the significance of nearby heritage assets or their setting;

  Through an archaeological assessment define the extent and significance of any archaeological remains and reflect those in the development proposals, as appropriate."

- With regards to **Southbourne**, the proposed broad location for development is relatively unconstrained in historic environment terms, with historic settlement having been to the south, along the A259 corridor (although historic rural lanes are a consideration, including Priors Leaze Lane, where there are two closely linked historic farmsteads, both with grade 2 listed farmhouses, collectively shown as 'Inlands' on the pre-WWI OS map).
- In the **northeast plan area**, Kirdford, Plaistow and Wisborough Green all have designated conservation areas, and Loxwood has a notable historic core, whilst Ifold has limited historic character, as an early / mid-20th Century new settlement. Focusing on **Kirdford**, **Plaistow** and **Wisborough Green**, there appears to be good potential to deliver the proposed level of growth in such a way that effects to the conservation areas, and particular listed buildings / clusters of listed buildings (taking account of setting), can be avoided or suitably mitigated. However, this assumes careful site selection and site-specific policy through neighbourhood plans.

9.9.3 With regards to proposed supply elements that are a not a focus of the appraisal in Section 6, because they are held constant across the reasonable alternative growth scenarios, key considerations are:

- **Land East of Chichester** (680 homes) – the following detailed site specific policy is proposed: *"Conserve and enhance the historic significance of the listed Shopwyke Grange and the cluster of buildings associated with the grade II* listed Shopwhyke Hall which should be analysed at an early stage of the masterplan."* The assets in question should be buffered by the proposed strategic wildlife corridor.
- **Highgrove Farm** (245 homes) – there are no listed buildings in close proximity to the site, but one consideration (also for other growth locations along the A259 corridor) is increased traffic through the Fishbourne Conservation Area (N.B. Fishbourne is proposed to receive a modest parish allocation).
- **Parish allocations** – Boxgrove (50 homes) is notable for an extensive conservation area, including the ruins of Boxgrove Priory alongside a grade 1 listed parish church. A modest parish allocation of 50 homes was consulted-upon in early 2022, and this approach is remains appropriate at the current time.

9.9.4 With regards to **thematic policies**, numerous are supportive of 'historic environment' objectives and no significant tensions can be highlighted. Key policies include:

- Policy P9 (The historic environment) encourages the re-use/ renovation of underutilised or vacant heritage assets that would otherwise be at risk. The policy will not permit the demolition of a listed building or substantial harm to a Conservation Area unless this can be demonstrably shown to be outweighed by public benefit. Proposals affecting listed buildings would be required to provide detailed Heritage statements and must not harm the historic character and special interest of the affected building, its curtilage and setting. Policy P11 (Conservation Areas) requires development within such areas to preserve and enhance the local character through appropriate design and materials selection and the protection of the setting and views.
- Non-designated heritage assets are offered a degree of protection under Policy P12, which stipulates that development leading to the loss of assets will only be permitted where it can be demonstrated that the asset cannot be 'beneficially reused' or where the loss is outweighed by public benefit.

  Archaeological assets are also offered protection through the policy which requires ground works on sites of archaeological potential to be preceded by an archaeological assessment evaluating the site and assessing the impact of the proposed works. Such works would be required to safeguard archaeology (also setting) including through public display and interpretation where appropriate. The policy requires the recording, publication and archiving of findings to advance understanding.

9.9.5 In **conclusion**, there is a degree of tension with historic environment objectives, which is fairly inevitable in the context of local plan-making, but there is a need to recall the baseline situation, which is one whereby development continues to come forward in a relatively unplanned manner. Taking account of the proposed suite of site specific and plan area-wide thematic development management policies, **neutral effects** are predicted on balance. However, Historic England will wish to comment further, noting significant changes to the proposed strategy / package of supply components since consultation in 2018.

9.10 Housing

Objective: Meet local housing need

9.10.1 The local plan does *not* meet local **housing needs** (LHN) in full, and there is considerable uncertainty regarding where and when the resulting unmet housing needs will be met. However, it is difficult to envisage a reasonable alternative strategy that performs significantly better, in terms of meeting housing needs, without giving rise to significant drawbacks in respect of wider issues and objectives.

9.10.2 This matter is a focus of the appraisal presented in Section 6. For the **southern plan area**, there is no reasonable potential to plan to deliver more than 535 dwellings per annum (dpa), but there is a question-mark around whether or not it is appropriate to plan to deliver 535 dpa by identifying supply amounting to 535 dpa *plus a supply buffer*. For the **northeast plan area**, there is feasibly the potential to plan for significantly higher growth, with a view to 'closing the gap' to LHN; however, the drawbacks to any such strategy are wide-ranging, essentially relating to the rural nature of the area (also, a higher growth strategy could feasibly call into question the efficacy of the Water Neutrality Mitigation Strategy, 2022).

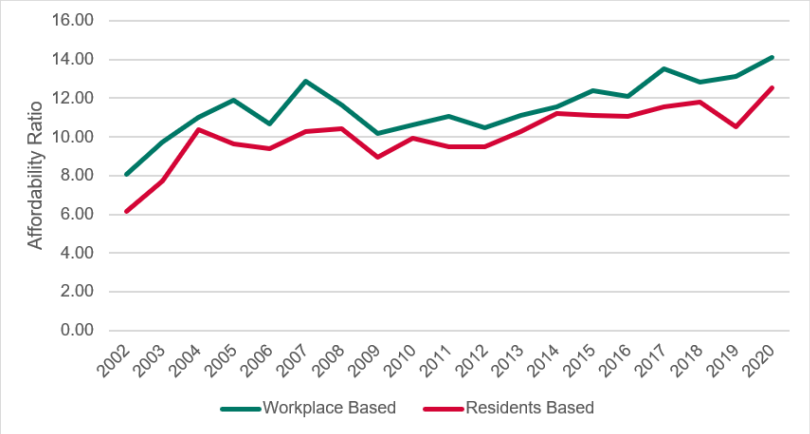
9.10.3 For the plan area as a whole, the proposal is to plan for 10,350 homes over the plan period (an average of 575 dpa) and to identify a supply totalling 10,354 to ensure this is the case. As such, the proposal is to adopt a plan without any **supply buffer** of note. This gives rise to a risk of supply falling below the required housing trajectory in practice, at some point in the plan period, given the potential for unforeseen issues to arise at the development management stage. In turn, there is a risk of being subject to punitive measures in the form of the presumption in favour of sustainable development / 'tilted balance', in order to bring housing supply back into line with the required trajectory. This has been a considerable issue for the Council recently, with numerous 'unplanned' sites gaining permission at appeal.

9.10.4 A related matter is the **timing** of housing growth over the plan period, given the proposed package of supply components, and given the aforementioned need to maintain a housing supply trajectory aligned with the annual housing requirement, as far as possible. There are not known to be any particular issues in this regard – i.e. problematic dips in the housing trajectory – although one matter for consideration is the proposal to rely quite heavily on allocations that will be made through subsequent neighbourhood plans. Another is a relatively high reliance on growth in the northeast plan area, where there remain barriers to approving planning applications / bringing forward housing ahead of strategic water offsetting schemes becoming operational (see discussion in Box 5.2, above).

9.10.5 Another key consideration is **affordable housing**, with the Housing and Economic Development Needs Assessment (HEDNA, 2022) identified a need for 278 social/affordable rented homes per annum, plus a need for up to 301 'affordable home ownership' homes per annum. Taken together (579 dpa), these figures suggest an affordable housing need that is in excess of the housing requirement (575 dpa), whilst the proposal is to deliver affordable housing at a rate of 30% at the great majority of development sites. However, calculating affordable housing needs is a very complex matter, and overall it is likely to be an over-simplification to suggest that affordable housing needs amount to 579 dpa. Also, it is difficult to suggest that a higher rate of affordable housing delivery should be sought, given competing funding priorities, notably A27 upgrades, nutrient neutrality and water neutrality, and noting that the plan is not proposing to go beyond the statutory minimum in respect of biodiversity net gain or built environment decarbonisation objectives.

9.10.6 Another obvious implication of not meeting housing needs is continued upward pressure on the median **affordability** ratio for Chichester, which has been on a steady upwards trajectory – see Figure 9.1.

Figure 9.1: Median affordability ratio for Chichester District (HEDNA, 2022)



Source: ONS, 2021

9.10.7 Returning to the matter of **unmet housing needs**, concerns are heightened on account of: unmet housing needs arising – or likely to arise - from elsewhere in the sub-region; little evidence of progress in respect of sub-regional strategic planning for housing since adoption of the Brighton and Coastal West Sussex Local Strategy Statement (LSS) in January 2016; a similar lack of progress in respect of strategic planning for housing in the Partnership for South Hampshire (PfSH) area to the west; and generally the extent of strategic environmental and transport infrastructure constraints affecting the sub-region. In the absence of a wider strategy – e.g. for the entire sub-region between the M3 and A23 corridors – it is difficult to have any confidence regarding a strategy for meeting unmet needs.

9.10.8 Final considerations are:

- **Specialist accommodation**, including for older people, is a key consideration locally, and the HEDNA (2022) presents detailed analysis. Policy H8 requires all sites over 200 units to provide specialist older people housing to include a support or care component and, in turn, this is reflected in site-specific policy for Southbourne broad area, Land East of Chichester, Maudlin Farm and Highgrove Farm. Also, whilst Southern Gateway falls below the 200 homes threshold, the policy states that there is "scope to include specialist accommodation such as student or older persons accommodation"; equally, whilst the likely scheme that ultimately comes forward to the west of Loxwood is likely to fall below the threshold, the policy for the parish allocation states: *"Subject to local evidence of need, provide appropriate specialist housing needs already established, or identified as part of the process of producing the Neighbourhood Plan, such as for older people or self/custom build."*
- Planning for the accommodation needs of **Gypsies and Travellers and Travelling Showpeople** is a focus of discussion in Appendix III. There is some uncertainty, given delivery risks associated with certain supply components, and also given uncertainty around the question of the extent to which it is appropriate to rely on windfall sites. However, overall the proposal is to identify supply sufficient to go some way towards meeting accommodation needs, particularly in the key first five years of the plan period, and there will be good potential to identify additional supply through a follow-on Site Allocations Plan. The proposal is for considerable reliance on delivering new pitches and plots as part of strategic housing or employment led schemes, which can create challenges and delivery risks; however, at certain

sites the potential for this strategy to prove successful can certainly be envisaged, notably at Southbourne broad location for development and south of Bognor Road strategic employment site.

- Policy H10 requires a proportion of all new housing to meet **adaptability** and wheelchair **accessibility** standards. This is another requirement with viability implications, as explored through the Viability Study.

9.10.9 In **conclusion**, there is a clear need to predict **significant negative effects**, given the proposal to generate significant unmet needs, and given that there are clear challenges in respect of meeting unmet needs. However, it is important to be clear that it is it is difficult to envisage a reasonable alternative strategy that performs significantly better, in terms of meeting housing needs, without giving rise to significant drawbacks in respect of other plan and wider sustainability objectives. In other respects the plan performs well, including an approach to meeting Gypsy and Traveller accommodation needs that is on balance considered proactive (albeit there are delivery risks, and overall some risk of unmet needs).

9.11 Land, soils, resources

Objective: Enhance landscapes

9.11.1 A primary consideration is avoiding the loss of best and most versatile (BMV) agricultural land, as far as possible. The NPPF defines BMV land as that which is of grade 1, 2 or 3a quality, and the available national dataset (available at magic.gov.uk), identifies extensive **grade 1 quality land** across the east-west corridor, with a particular concentration at Southbourne. However, this dataset is very low resolution / accuracy, and few of the proposed locations for growth have been surveyed in detail using the 'post 1988 criteria' methodology (only Highgrove Farm and Land south of Bognor Road).

9.11.2 Agricultural land quality is not as high on the Manhood Peninsula, but a very high proportion of land is likely to be of BMV quality nonetheless. As for the northeast plan area, agricultural land quality is significantly lower, although there is likely to be some land classed as BMV nonetheless.

9.11.3 A further consideration is **minerals safeguarding areas**, with extensive safeguarding areas affecting numerous of the proposed locations for growth. Safeguarding is not absolute, as explained by the Minerals Safeguarding Practice Guidance (2019): *"Allocation of sites for non-minerals development within [safeguarding areas] should be avoided where possible… However, safeguarding is not absolute. Where other considerations indicate that a proposed site allocation… is appropriate… mitigation measures [should] reduce the… amount of resource sterilised."* Nonetheless, numerous site specific policies reference minerals safeguarding, with supporting text along the lines of: *"Consider the Minerals Safeguarding Area and in line with the West Sussex Joint Minerals Local Plan, a minerals resource assessment may be required to assess if the land contains a mineral resource that would require extraction prior to development . Account should also be taken of the West Sussex Waste Local Plan and associated guidance in relation to safeguarding policy W2."* It is recommended that consideration is given to ways of consolidating policy for brevity.

9.11.4 In **conclusion**, there is a need to predict **significant negative effects**, given the likely scale of loss of high quality BMV agricultural land, likely to include land of grade 1 quality. However, it is important to note that it is difficult to envisage a reasonable alternative strategy, given a clear need to plan for 535 dpa in the southern plan area and focus growth along the east-west corridor. Ideally further consideration might be given to how best to avoid highest quality agricultural land through detailed site selection, but the available evidence is very limited. Aside from agricultural land, minerals safeguarding areas are an extensive constraint across the southern plan area, but it seems unlikely that there will be a requirement to extract minerals ahead of development at any of the proposed allocations.

9.12 Landscape

Objective: Maximise efficient use of land and other natural resources

9.12.1 The discussion presented in Section 6 is supportive of the proposed strategy for the southern plan area, but concludes that the strategy for the northeast plan area gives rise to notable tensions with landscape environment objectives.

9.12.2 Key matters discussed in Section 6, in respect of the proposed strategy, include:

- **Southern plan area** – a key source of evidence is the Landscape Capacity Study (2019), which has clearly had a significant influence on site selection. At Southbourne, this is quite an open and expansive landscape, but work in support of the withdrawn neighbourhood plan served to identify good potential to define a new long term / defensible urban edge, assuming a focus of growth to the east of the village. At Westhampnett, the proposed site (Maudlin Farm) is well-contained, in that there are robust boundaries, although there are views into the site (the OS map shows cycle routes on two sides of the site, associated with historic lanes, but these appear to be blocked off by the A27).
- **Northeast plan area** – the Landscape Capacity Study (2019) serves to highlight that landscape capacity is a constraint to higher growth scenarios at most settlements, although less so Ifold. Section 6 reports that greatest concerns are around higher/highest growth at **Kirdford** and highest growth at **Wisborough Green**. However, for Kirdford the preferred approach involves a 'lower' growth strategy, and at Wisborough Green the preferred approach involves a 'higher' growth strategy, which can likely be delivered without significant landscape impacts (subject to neighbourhood plan site selection).

9.12.3 With regards to proposed supply elements that are a not a focus of the appraisal in Section 6, because they are held constant across the reasonable alternative growth scenarios, key considerations are:

- **Land East of Chichester** (680 homes) – is supported, on the basis of the Landscape Capacity Study, and quite detailed site-specific policy is proposed.
- **Highgrove Farm** (245 homes) – is associated with a degree of landscape sensitivity, given the open nature of the site and external views from surrounding areas especially the Chichester Harbour AONB and the SDNP. Site specific policy seeks to ensure *"the development is well integrated with its surroundings and successfully mitigates the impacts on the wider landscape character."*

9.12.4 Another consideration is the importance of maintaining **separation between settlements**, particularly along the A259 corridor to the west of Chichester, although there is also a need to consider separation / gaps in the Westhampnett / Tangmere / Oving area. This matter is only explicitly discussed as part of site-specific policy for the Southbourne broad location for development, where the requirement is to: *"Maintain the character and integrity of existing settlements and provide clear separation between new development and neighbouring settlements including through the definition and protection of landscape gaps"*.

9.12.5 With regards to **thematic policies**, key policies include:

- NE2 (Natural landscape) seeks to avoid adverse impacts on the Chichester Harbour AONB and SDNP. Development design here is required to respect / enhance the nationally designated sites and their settings. Larger schemes are required to provide Landscape and Visual Impact Assessment (LVIA).
- NE3 (Landscape gaps between settlements) seeks to prevent coalescence of built-up areas by maintaining landscape gaps where development would only be permitted if does not lead to coalescence or dimmish the character and openness of the gap.

9.12.6 In **conclusion**, there is a degree of tension with landscape objectives, which is fairly inevitable in the context of local plan-making, but there is a need to recall the baseline situation, which is one whereby development continues to come forward in a relatively unplanned manner. The Landscape Capacity Study (2019) provides a valuable source of evidence (also the Landscape Gaps Study, 2019), and has clearly had a key influence on spatial strategy / site selection, with the main issue potentially relating to allocation of Highgrove Farm (although it is important to recall that this site has merit in other respects, notably walking distance of a train station). The proposed suite of site-specific and plan area-wide thematic development management policies is strong, and so overall **neutral effects** are predicted.

9.13 Transport

Objective: Achieve a sustainable and integrated transport system

9.13.1 This is a key issue for the local plan, as discussed in detail across Sections 5 and 6. In the **southern plan area**, supply totals more-or-less the 'cap' on growth that has been agreed with National Highways (535 dpa x 18 – 9,630 homes), which arguably gives rise to a degree of risk, in terms of A27 junction capacity, on account of the inherent risks associated with the proposed monitor and manage strategy. However, on the other hand, there are transport arguments against a lower growth strategy, because: A) developer contributions are needed in order to fund the required programme of junction upgrades; and B) there would be pressure for higher growth elsewhere at locations that perform less well in transport terms, including the northeast plan area.

9.13.2 Aside from the matter of total growth quantum there is also a need to consider the **distribution** of growth across the southern plan area, and also the timing of growth. Considerations include:

- Chichester – the local plan seeks to maximise opportunities for growth within an adjacent to Chichester:
  - A suitably ambitious strategy is proposed for the Southern Gateway, although there is a need to balance flood risk constraints.
  - The Chichester parish allocation is suitably ambitious, in that it reflects the full capacity of developable HELAA sites (as understood from the HELAA; see discussion in Appendix V).
  - The Land east of Chichester proposed urban extension is the only urban extension reasonably in contention for allocation.
- Maudlin Farm, Westhampnett – also relates well to Chichester, and there is thought to be good cycle connectivity; however, there is no nearby train station, car journeys to Portsmouth will involve passing through all of the problematic A27 junctions; and there is a need for further work in respect of site access.
- Fishbourne Parish – also clearly relates very well to Chichester and there is a train station. However, available HELAA capacity – once account is taken of the proposal to designate a strategic wildlife corridor to the east of the village – dictates the need for a low growth strategy.
- A259 settlements – a good proportion of growth is directed to Southbourne, Chidham and Hambrook and Bosham (Broadbridge), where there is good / excellent potential to bring forward development within walking distance of a train station, and there is connectivity to Portsmouth whilst avoiding the A27. Section 6 explores the possibility of a higher growth strategy in this area, at the expense of allocating Maudlin Farm, but the conclusion (Section 7) is that the preferred strategy is justified on balance.
- Manhood Peninsula – the proposal is to not direct any further growth to this area over-and-above completions and commitments, which is supported from a transport perspective. As discussed in Section 5.2, a key issue is that to and from the peninsula must join or cross problematic A27 junctions, and this is also a barrier to bus travel. The discussion in Section 6 considers the possibility of modestly higher growth, but the conclusion (Section 7) is that the preferred strategy is justified on balance.

9.13.3 With regards to the **northeast plan area**, as has been discussed, there are arguments for both higher and lower growth on transport grounds. As well as concerns around per capita greenhouse gas emissions from transport, there is also a need to consider: issues of traffic congestion within village centres and along rural lanes; the potential to achieve good / safe vehicular access, and access for pedestrians and cyclists (this can sometimes prove challenging in rural settings; see Section 6); and the risk of problematic traffic congestion at higher order settlements outside of the district (certainly an issue for higher growth scenarios discussed in Section 6, but not thought to be a significant issue for the preferred strategy).

9.13.4 With regards to **thematic policies**, numerous are supportive of 'accessibility' objectives and no significant tensions can be highlighted. Key policies include:

- An adequate, well connected transport infrastructure is particularly important to this topic. Policies T1, T2 and T3 require development proposals to demonstrate how they support the Plan's key transport objectives namely the creation of an integrated transport network alleviating pressure on the road network, improving highway safety and encouraging sustainable travel helping reduce transport impacts on air quality. For example, T1 (Transport Infrastructure) makes provision for improvements to junctions on the A27 Chichester Bypass that will increase road capacity, reduce congestion and improve safety.
- Policy I1 (Infrastructure provision) seeks to ensure adequate infrastructure provision to support proposed growth. This includes safeguarding land as necessary. The policy also advocates improving accessibility to facilities and services by sustainable travel means from the outset.

9.13.5 In **conclusion**, transport objectives have had a key influence on spatial strategy and site selection and, from a transport perspective, it is crucial to adopt a local plan as soon as possible, in order to avoid a situation whereby there is continued problematic unplanned growth. Key considerations relate to: A) whether it is appropriate to identify supply in the southern plan area amounting to precisely 535 dpa (9,630 homes in total) or alternatively 535 dpa plus a modest supply buffer; and B) the number of homes that should be directed to the northeast plan area, mindful that whilst this area is poorly connected in transport terms, the implication of lower growth is increased unmet needs, which is also problematic in transport terms; and C) the distribution of housing growth, e.g. directing growth to locations with best 'sustainable transport' connectivity, including the ability to walk or cycle to a train station. In all three respects the plan is judged to perform suitably well, and so **significant positive effects** are predicted.

9.14 Water

Objective: Protect water resources

9.14.1 The discussion presented in Section 6 is supportive of the proposed strategy for the southern plan area, and does not raise any significant concerns with the strategy for the northeast plan area, although there is a preference for a lower growth strategy.

9.14.2 Key matters discussed in Section 6, in respect of the proposed strategy, include:

- In the **southern plan area** the key issue of **nutrient neutrality**, and specifically wastewater treatment capacity. In practice there would be a requirement for growth to be phased so as to follow capacity upgrades under any scenario; nonetheless a clear 'water' related argument for reducing pressure for upgrades as far as possible, given inherent risks of unforeseen costs or otherwise delivery issues. In this light, there is strong support for the allocation of Maudlin Farm, Westhampnett, which is located to the east of Chichester and therefore not affected by the nitrate neutrality constraint.
- In the **northeast plan area** the key issue of **water neutrality**. As discussed in Section 5.2, a Mitigation Strategy has now been agreed, but cannot be implemented until further work has been completed in order to design / set up strategic offsetting schemes. In this light, the proposed strategy of restricting growth somewhat (see discussion of reasonable alternative growth scenarios in Section 6) is supported.
- With regards to **water quality**, the primary consideration is understood to be the capacity to treat additional wastewater in in the Plaistow / Ifold / Loxwood area. The waste water treatment works (WwTW) is currently operating above capacity (hydrological capacity and/or environmental capacity of the receiving watercourse) and there is also limited capacity at the WwTWs serving Kirdford and Wisborough Green. There is typically potential to deliver capacity upgrades, but there can be challenges. As such, there is a clear preference for directing growth away from WwTWs with capacity issues, with a view to avoiding the risk of capacity breaches.

9.14.3 With regards to **thematic policies**, the key policies of overriding importance are:

- Policy NE17 (Water neutrality) requires that all new residential development within the Sussex North WRZ must: A) be designed to utilise no more than 85 litres of mains supplied water per person per day; and B) demonstrate that having achieved water efficient design, any remaining mains-supplied water use from the development is offset such that there is no net increase in mains-supplied water use within the WRZ compared with pre-development levels.

  Focusing on (A), the Mitigation Strategy (2022) does not discuss any higher efficiency standard that might be set (even recognising that the northeast plan area is associated with high development viability, e.g. the proposal is to also require 40% affordable housing). Current Building Regulations set out an "optional" standard of 110 litres pppd, and work has been undertaken collaboratively by the four Sussex North WRZ authorities to appraise the merits of requiring 110 litres pppd versus 85 litres pppd, but the latter option was found to be preferable in all respects. There are naturally costs involved with requiring 85 litres pppd, but these have been considered through a Viability Study, which finds that there is the potential to viably require 85 litres pppd (on the basis of assumptions in respect of policy requirements set in respect of other issues/objectives, including decarbonisation / net zero).
- Policy NE19 (Nutrient Neutrality) sets out that: *"Development involving an overnight stay (such as residential or tourist development) that discharges into Chichester and Langstone Harbour SPA/ Ramsar (either surface water, non mains drainage development or through wastewater treatment works) will be required to demonstrate that it will be nutrient neutral for the lifetime of the development, either by its own means or by means of agreed mitigation measures."*

9.14.4 Another issue of concern is the quality of the South Downs chalk aquifer; the principal groundwater resource for the southern area of the Plan. Policy NE18 (Source protection zones) seeks to protect groundwater within Source Protection Zones (SPZ) 1 and 1c (the most sensitive zones) by requiring development affecting these locations to include a Conceptual Site Model and a risk assessment.

9.14.5 In **conclusion**, 'water' considerations have been another key driver of spatial strategy and site selection and, from a water perspective, it is crucial to adopt a local plan as soon as possible, in order to avoid a situation whereby there is continued problematic unplanned growth. As such, the local plan should lead to **significant positive effects** on the baseline.

9.15 Conclusions

9.15.1 The appraisal predicts mixed effects (as is typically the case with local plans). In summary:

- Positive effects are predicted under four topic headings, and in three cases it is possible to conclude that positive effects will be 'significant'.
- Negative effects are predicted under three topic headings, and in two cases it is possible to conclude that negative effects will be 'significant'.
- Neutral effects are predicted under the remaining topic headings. In all cases there are a range of important issues and impacts to consider, but it is not possible to reach a clear conclusion in respect of overall effects, either positive or negative.

9.15.2 The following bullet points summarise the key predicted positive and negative effects:

- **Significant positive effects**
  - Economy and employment – objectively assessed needs for employment land are met in full.
  - Transport – addressing A27 capacity issues, and transport-related constraints to growth in the rural northeast plan area, are both key factors that have influenced the plan-making process.
  - Water – addressing the nutrient neutrality constraint in the southern plan area, and the water neutrality constraint in the northeast plan area, are also key factors that have influenced the process.
- **Moderate or uncertain positive effects**
  - Communities – the plan seeks to partly delegate the task of allocating sites for development to neighbourhood plans, which is supported, and also directs a good proportion of growth to locations where there the effect will be to support new / upgraded community infrastructure, potentially supporting 'planning gain'.
- **Moderate or uncertain negative effects**
  - Climate change mitigation – the plan will have a positive effect on the baseline (which is a scenario whereby housing growth continues to come forward, but in a relatively unplanned way), but it is not clear that the positive effect is of a magnitude reflective of the level of ambition that is required, given the urgency of climate change mitigation.
- **Significant negative effects**
  - Homes – the plan housing requirement is set at a level below local housing needs (LHN), such that the effect of the plan will be to generate unmet housing needs, and it is difficult to suggest where and when unmet needs will be met, given existing issues of unmet housing needs across the sub-region.
  - Land and soils – proposed locations for growth will lead to significant loss of best and most versatile (BMV) agricultural land, and this is likely to include land that is Grade 1 quality. In turn, it is appropriate to 'flag' a significant negative effect. However, it is recognised that there would likely be a similar rate of BMV agricultural land loss under the baseline (no plan) scenario.

Cumulative effects

9.15.3 The SEA Regulations, which underpin the SA process, indicate that stand-alone consideration should be given to 'cumulative effects', i.e. effects of the local plan in combination with other plans, programmes and projects that can be reasonably foreseen. In practice, this is an opportunity to discuss potential long term and 'larger than local' effects. The following bullet points cover some key considerations:

- **Housing needs** – this is a primary larger than local consideration. As discussed, there is a significant concern regarding unmet housing needs across the sub-region.
- **The economy** – the proposed strategic employment allocation is closely linked to Bognor Regus, within Arun District, where there is an existing issue of out-commuting to employment.
- **Transport corridors** – the overriding consideration here is the A27 corridor, which is a key issue across a wide sub-region. As discussed, the plan has been prepared with a sharp focus on avoiding severe traffic congestion, given the current uncertainty regarding national funding for junction upgrades.
- **Internationally important biodiversity sites** – the key consideration is planning for nutrient neutrality in the southern plan area, alongside neighbouring Havant Borough. Also, in the northeast plan area the Mens SAC is key subregional constraint, but the proposed strategy gives rise to limited concerns.
- **The South Downs NP and Chichester Harbour AONB** – a key point to note is that it has not been possible to provide for a proportion of unmet housing needs from the SDNP (this was previously the proposal, at the Preferred Approach stage in 2018, but is no longer a realistic scenario).
- **Landscape scale nature recovery** – as discussed, the proposed approach of designation strategic wildlife corridors, including with the aim of improving functional linkages between the SDNP and Chichester harbour, is strongly supported as a proactive step ahead of a Local Nature Recovery Strategy (LNRS) is forthcoming, under the Environment Act 2021.
- **Agricultural land** – self-sufficiency of food projection is increasingly a key national consideration.
- **Water resources** – the Council has worked collaboratively with the three other local authorities affected by North Sussex Water Resources Zone (WRZ) water neutrality constraint, and the proposed strategy for growth within the northeast plan area is well short of the level of growth assumed within the agreed Mitigation Strategy (December 2022).

Part 3: What are the next steps?

10 Plan finalisation

10.1.1 Once the period for representations on the proposed submission plan has finished the main issues raised will be identified and summarised by the Council, who will then consider whether the plan can still be deemed 'sound'. If this is the case, the plan will be submitted for Examination, alongside a summary of the main issues raised during the consultation. The Council will also submit the SA Report.

10.1.2 At Examination, the Inspector will consider representations (alongside the SA Report) before then either reporting back on soundness or identifying the need for modifications. If the Inspector identifies the need for modifications to the local plan, these will be prepared (alongside SA if necessary) and then subject to consultation (with an SA Report Addendum published alongside if necessary).

10.1.3 Once found to be 'sound' the local plan can be adopted by the Council. At that time an 'SA Adoption Statement' must be published that sets out certain information including 'the measures decided concerning monitoring'.

11 Monitoring

11.1.1 At the current time, in-light of the appraisal findings presented in Part 2 (i.e. predicted effects and uncertainties), it is suggested that monitoring efforts might focus on:

- Agricultural land – it is possible to monitor loss of agricultural land by grade.
- Biodiversity – the new net gain regime presents an opportunity for innovative monitoring.
- Climate change adaptation – potentially monitor housing in close proximity to a fluvial flood zone (in addition to intersecting); also the 1 in 30 year surface water flood zone.
- Climate change mitigation – there is a strong argument for monitoring the proportion of homes that achieve standards that go beyond the minimum requirements set out in Building Regulations.
- Employment land requirements – require close monitoring, given evolving regional and national context.
- Housing – the Council already monitors numerous housing delivery related matters, and indicators should be kept under review. There could be an argument for monitoring affordable housing delivery by district sub-area / viability zone. Regular monitoring of the accommodation needs of Gypsies and Travellers, and Travelling Showpeople, is also important.
- Transport – consideration should be given to innovative methods of monitoring the uptake of 'sustainable transport' modes within new communities, plus there is a need for ongoing monitoring of traffic hotspots.
- Water – ongoing consideration should be given to any risk of capacity breaches at Wastewater Treatment Works (WwTWs) and other risks to the status of water courses

Appendix I: Regulatory requirements

As discussed in Section 1, Schedule 2 of the Environmental Assessment of Plans Regulations 2004 explains the information that must be contained in the SA Report. However, interpretation of Schedule 2 is not straightforward. Table A links the structure of this report to an interpretation of Schedule 2, whilst Table B explains this interpretation. Table C then presents a discussion of more precisely how the information in this report reflects the requirements.

Table A: Questions answered by this SA Report, in-line with an interpretation of regulatory requirements

	Questions answered		As per regulations… the SA Report must include…
Introduction	What's the plan seeking to achieve?		• An outline of the contents, main objectives of the plan and relationship with other relevant plans and programmes
	What's the SA scope?	What's the sustainability 'context'?	• Relevant environmental protection objectives, established at international or national level • Any existing environmental problems which are relevant to the plan including those relating to any areas of a particular environmental importance
		What's the sustainability 'baseline'?	• Relevant aspects of the current state of the environment and the likely evolution thereof without implementation of the plan • The environmental characteristics of areas likely to be significantly affected • Any existing environmental problems which are relevant to the plan including those relating to any areas of a particular environmental importance
		What are the key issues and objectives that should be a focus?	• Key environmental problems / issues and objectives that should be a focus of (i.e. provide a 'framework' for) assessment
Part 1	What has plan-making / SA involved up to this point?		• Outline reasons for selecting the alternatives dealt with (and thus an explanation of the 'reasonableness' of the approach) • The likely significant effects associated with alternatives • Outline reasons for selecting the preferred approach in-light of alternatives assessment / a description of how environmental objectives and considerations are reflected in the draft plan
Part 2	What are the SA findings at this current stage?		• The likely significant effects associated with the draft plan • The measures envisaged to prevent, reduce and offset any significant adverse effects of implementing the draft plan
Part 3	What happens next?		• A description of the monitoring measures envisaged

Table B: Interpreting Schedule 2 and linking the interpretation to our report structure

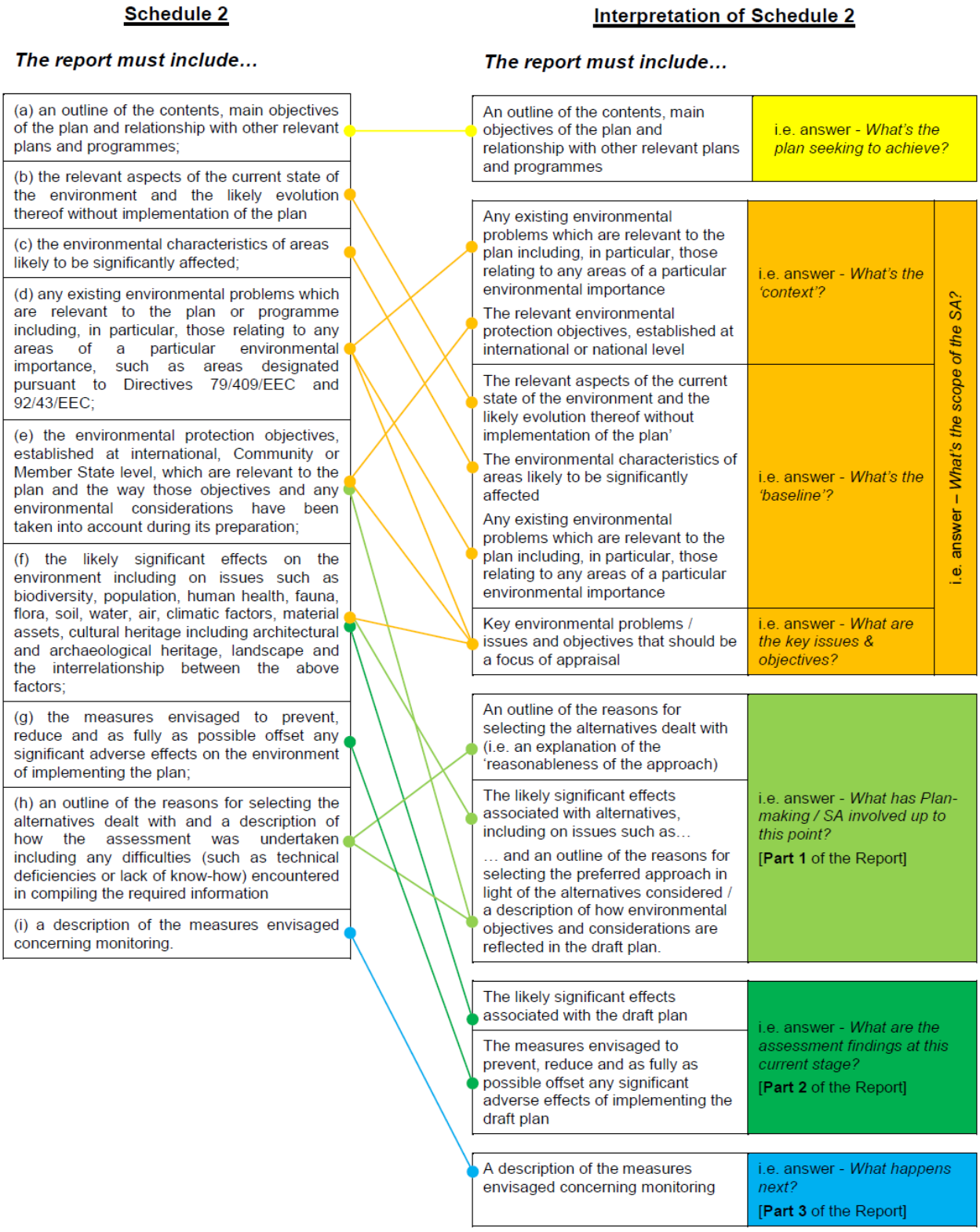


Table C: 'Checklist' of how and where (within this report) regulatory requirements are reflected.

Regulatory requirement	Information presented in this report
Schedule 2 of the regulations lists the information to be provided within the SA Report	
a) An outline of the contents, main objectives of the plan or programme, and relationship with other relevant plans and programmes;	Section 2 ('What's the plan seeking to achieve') presents this information.
b) The relevant aspects of the current state of the environment and the likely evolution thereof without implementation of the plan or programme;	These matters were considered in detail at the scoping stage, which included consultation on a Scoping Report. The outcome of scoping was an 'SA framework', which is presented within Section 3.
c) The environmental characteristics of areas likely to be significantly affected;	
d) … environmental problems which are relevant… …areas of a particular environmental importance…;	
e) The environmental protection objectives, established at international, Community or national level, which are relevant to the plan or programme and the way those objectives and any environmental, considerations have been taken into account during its preparation;	The Scoping Report presented a detailed context review and explained how key messages from this (and baseline review) were then refined in order to establish an 'SA framework', which is presented within Section 3. With regards to explaining *"how… considerations have been taken into account"*, Section 7 explains 'reasons for supporting the preferred approach', i.e. how/why the preferred approach is justified in-light of alternatives appraisal.
f) The likely significant effects on the environment, including on issues such as biodiversity, population, human health, fauna, flora, soil, water, air, climatic factors, material assets, cultural heritage including architectural and archaeological heritage, landscape and the interrelationship between the above factors.	Section 6 presents alternatives appraisal findings in respect of reasonable growth scenarios, whilst Section 9 presents an appraisal of the local plan as a whole. All appraisal work naturally involved giving consideration to the SA scope and the potential for various effect characteristics/dimensions.
g) The measures envisaged to prevent, reduce and as fully as possible offset any significant adverse effects on the environment of implementing the plan or programme;	Section 9 presents recommendations. Also, it is important to note that there have been numerous stages of the SA process, over a period of several years, with appraisal findings at each stage feeding into the plan-making process.
h) An outline of the reasons for selecting the alternatives dealt with, and a description of how the assessment was undertaken including any difficulties (such as technical deficiencies or lack of know-how) encountered in compiling the required information;	Sections 4 and 5 deal with 'reasons for selecting the alternatives dealt with', with an explanation of reasons for focusing on growth scenarios / certain growth scenarios. Sections 7 explains 'reasons for supporting the preferred approach', i.e. explains how/why the preferred approach is justified in-light of the alternatives (growth scenarios) appraisal. Methodology is discussed at various places, ahead of presenting appraisal findings.
i) … measures envisaged concerning monitoring;	Section 11 presents this information.
j) a non-technical summary… under the above headings	The NTS is a separate document.
The SA Report must be published alongside the draft plan, in-line with the following regulations	
Authorities… and the public, shall be given an early and effective opportunity within appropriate time frames to express their opinion on the draft plan or programme and the accompanying environmental report before the adoption of the plan or programme (Art. 6.1, 6.2)	This SA Report is published alongside the proposed submission plan in order to inform representations and plan finalisation.
The SA Report must be taken into account, alongside consultation responses, when finalising the plan.	
The environmental report prepared pursuant to Article 5, the opinions expressed pursuant to Article 6 and the results of any transboundary consultations entered into pursuant to Article 7 shall be taken into account during the preparation of the plan or programme and before its adoption or submission to the legislative procedure.	This SA Report will be taken into account when finalising the plan over the course of the examination in public.

Appendix II: Employment land

Introduction

This appendix gives consideration to employment land requirements, supply options and potential reasonable alternatives, i.e. alternative approaches to supply for the plan area as a whole.

Employment land requirements

The Housing and Economic Development Needs Assessment (HEDNA, 2022) presents three employment growth scenarios, and then considers how these should be translated into employment floorspace / land requirements for the plan period. The three employment growth scenarios are:

- Labour demand – the HEDNA identifies 'baseline' growth of 5,761 jobs, but adjusts this figure upwards to 9,802 jobs (known as the 'growth' scenario), on the basis of "intelligence about the local structure and prospects of a range of sectors within Chichester" (see Table A).
- Labour supply – assuming that the housing requirement is set at LHN, which is 638 dwellings per annum (dpa; see discussion in Section 5.2), then housing growth would support growth of 12,313 jobs across the district. The HEDNA also sets out how this jobs growth would be spread across sectors (see Table B).
- Completions trend – a continuation of recent trends in employment land deliver and also losses.

Table A: Adjustments made to the baseline 'labour demand' jobs growth scenario (HEDNA, 2022)

Sector	Baseline (21-39)		Growth (21-39)		Justification
	Jobs	%	Jobs	%	
Agriculture & Mining	-494	-1.0%	0	0.0%	The horticultural industry is strong in Chichester and the baseline decline seems unrealistic.
Manufacturing	-2,108	-2.2%	0	0.0%	The majority of manufacturing employment is at RR and Food production neither of which are likely to contract
Transport & Warehouse	-51	-0.3%	285	1.3%	There is known demand and there has been a post-covid shift to e-commerce
Hospitality	592	0.5%	1,440	1.2%	The sector is known to have rebounded strongly and there are developments such as the Southern Gateway site and Bunn Leisure which will support further growth.
Education	415	0.3%	670	0.5%	The University is planning a substantial growth.
Total	5,761	0.4%	9,802	0.7%	

Source: Iceni Projects analysis of OE Data

Table B: Jobs growth by sector under the 'labour supply' jobs growth scenario (HEDNA, 2022)

Sector	Sector Type	Baseline	Labour Supply
Agriculture and Mining	Exogenous*	-494	-494
Manufacturing	Exogenous*	-2,108	-2,108
Utilities	Exogenous	-26	-11
Construction	Endogenous	555	1,036
Wholesale and Retail	Endogenous	221	1,306
Transport, Warehouse and Postal	Endogenous	-51	72
Accommodation, Food and Bev	Endogenous	592	1,270
Media and IT	Exogenous	226	376
Financial and insurance	Exogenous	5	113
Real estate activities	Exogenous	309	484
PST	Exogenous	1,236	1,745
Business Support Services	Exogenous	1,468	1,821
Public Admin and Defence	Endogenous	-136	374
Education	Endogenous	415	1,150
Health	Endogenous	2,476	3,587
Creative and Recreation	Endogenous	744	1,027
Other	Endogenous	327	565
Total		**5,761**	**12,313**

Iceni Projects based on OE Data *not adjusted from baseline

The three employment growth scenarios lead to quite a wide range of employment land requirement forecasts, as can be seen in Table C. N.B. this is a simplified version of the table set out in the HEDNA (Table 12.16), with a focus on employment land requirements in sqm only, and with midpoint numbers used in place of number ranges.

Table C: Jobs growth by sector under the 'labour supply' jobs growth scenario (HEDNA, 2022)

	Labour Demand (Growth Scenario)	Labour Supply (Standard Method)	Completions Trend (Net)
	Sq. m	Sq. m	Sq. m
Office	39,675	54,509	44,047
Factory	15,013	-62,544	50,497
Warehouse	55,220	104,530	21,288
Total	**109,908**	**96,893**	**115,832**

Source: Iceni Projects base on OE and CDC data

The final step in the HEDNA than involves deciding which of the scenarios to use for each of the three headline sectors. Considerations are:

- The HEDNA discounts the use of the labour supply scenario.
- For offices there is little difference between the remaining two scenarios, but labour demand is supported.
- For industrial space (factories and warehouse), the HEDNA supports the higher growth scenario (completions trend) given "*the demand for such space highlighted in the commercial market sector…"*

The HEDNA therefore concludes that employment land requirements are as follows – see Table D.

Table D: Jobs growth by sector under the 'labour supply' jobs growth scenario (HEDNA, 2022)

	Floorspace (Sq. m)	Employment Land (Ha)	Source
Office	36488 - 42863	4.9 - 5.7	Labour Demand
Factory	50,497	12.6	Completions
Warehouse	21,288	4.3	Completions
Total	110277 - 116796	22.0 – 23.0	

Source: Iceni Projects based on OE and WSCC Data

The HEDNA concludes (emphasis added): *"Overall, the evidence suggests that the employment land needs for the Plan Area for the period 2021-39 is* ***between 22 and 23 ha****. Reflecting the commercial analysis the* ***focus of need is on industrial*** *(factory and warehouse) growth rather than office based need."*

The HEDNA also concludes (emphasis added): "*In addition to the identified need, the Council should also be flexible to the needs of* ***Rolls Royce*** *which is integral to the local economy. This might mean accommodating additional floorspace to support the transition to electric vehicles."*

With regards to industrial land (factories and warehouses), the HEDNA also presents the following discussion:

> *"The UK industrial property market is thriving, owing to an accelerated shift towards e-commerce, Brexit and demand from high-tech occupiers… The South Coast has a significant property market... The areas' industrial market has barely been impacted by the pandemic and strong demand has led to an undersupply of space.*
>
> *Chichester's industrial market has grown rapidly over the last 10 years and is now a mid-sized market which makes an important contribution to the industrial market of West Sussex and the South East… Chichester's industrial market is extremely undersupplied…*

Supply options

The great majority of the requirement will be met by completions and commitments (both sits with planning permission and existing allocations that can be carried forward into the new local plan).

Specifically, completions and commitments total 86,642 sqm, leaving a residual 'headline' need (without breaking down further according to specific sectors) of up to ~30,000 sqm.

Assuming a focus on industrial land, then a 'plot ratio' of ~0.5 might be assumed (meaning that only around 50% the site would be used for employment floorspace, with the rest used for other uses, e.g. parking, access). In turn, there might be a need for ~60,000 sqm land in total, or ~6 ha.

There are around 30 HELAA sites that have been made available for employment land; however, it is reasonable to focus attention on those with the potential to deliver more than 10,000 sqm. Taking the sites in size order:

- South West of Chichester; (HAP0003a; **132,000sqm**) – was a proposed allocation at the Preferred Approach stage, but strategic growth in this area is now ruled out as unreasonable, because the Stockbridge Link Road is not deliverable and mindful of environmental constraints in this area.
- Land north of Bosham/Broadbridge (HBO0025; **120,000sqm**) – the option of strategic growth to the north of Broadbridge is discussed and ruled out as unreasonable in Appendix V. Without major interventions, this area is not suitably well connected by road to support significant new employment land.
- Land between Southbourne and Hambrook/Land east of Southbourne (HSB0037a; **88,000sqm**) – is discussed in Appendix V as suited to a residential-led development. There may be some potential for employment floorspace as part of the residential led scheme, but this would be modest, given key objectives for growth here. Also, as with land north of Bosham/Broadbridge, there is no direct access onto the A27.
- Land south of Bognor Road (HNM0017a; **66,900sqm**) – performs well and is **discussed further below**.
- Land south west of Funtington (HFU0003a; **40,000sqm**) – Funtington is within the SDNP and, in turn, is not considered as a potential location for growth within Appendix V. The site in question is outside but adjacent to the SDNP, and would not be suitable for an employment-only scheme. Again, connectivity to the A27 is poor.
- Crouchlands Farm (HPI0009; **40,000sqm**) – is discussed in Appendix V as a potential new settlement option, which might deliver a small amount of employment land, but nothing of strategic significance. This location would not be suited to an employment-only scheme, given its rural location in the northeast plan area.
- Land at Chichester Food Park (HNM0021a; **34,000sqm**) – is located within the Horticultural Development Area (HDA), such that it could be suited to some specialist employment land. Leaving aside the HDA designation, it might feasibly be considered for industrial land, but Land south of Bognor Road (discussed above) is a sequentially preferable site, from a perspective of links to Chichester and the A27.
- Land east of Rolls Royce (HWH0003a; **28,000sqm**) – is suited to delivering an expansion of the Rolls Royce factor. There is no certainty on timing, but the importance of Rolls Royce means that the land must be safeguarded, i.e. not used for any other purpose that would hinder future use by Rolls Royce.
- Land west of Loxwood (HLX0016; **20,000sqm**) – is discussed in Appendix V as suited to a residential-led development. There may be some potential for employment floorspace as part of the residential led scheme, but this would be modest, given key objectives for growth here. Also, this is a relatively rural location.
- Goodwood Aerodrome and Motor Circuit (HWH0016; **16,000sqm**) – is only suitable for specialist employment uses related to the aerodrome and motor circuit rather than to meet general employment needs.
- Drayton Depot (HOV0007; 12,000sqm) – comprises a site associated with the former Drayton Station, which was used for goods only until 1963, presumably linked to sand and gravel extraction. The Depot is currently in use, and there is not a clear argument for a change / intensification warranting a local plan allocation.
- Part of Barnfield/north of Lidl (phase 2) (HCC0050b; **12,000sqm**) – this site is discussed in Appendix V, as potentially suited to a housing led scheme, likely to include some ground floor retail or employment space, given flood risk affecting the site. It will be for the Chichester Neighbourhood Plan to make a final decision, such that it would not be appropriate to assume any significant employment land supply from the site at the current time.

Reasonable alternatives

An immediately apparent scenario sees allocation of Land south of Bognor Road only. The size of the site is more than twice what is required, but there is an expectation that it would not be developed to its full capacity, to account for onsite and adjacent sensitivities. The site is currently used for growing soft fruits (it has been surveyed and found to mostly comprise grade 2 quality agricultural land), and the Runcton HDA is adjacent to the south, whilst existing and committed industrial areas are located to the north and northwest. The site has excellent road connectivity, and very good connectivity to Chichester, plus it would be well-suited to delivering a Travelling Showpeople yard (see Appendix III). It would be particularly suitable for employment uses linked to horticulture.

There is no reasonable scenario involving higher growth, given that Bognor Road is more than sufficient to meet the residual requirement figure discussed above, and given the need to avoid unsustainable levels of in-commuting, notably from Arun District, from where high levels of out-commuting are seen as problematic. There is a strategic argument for considering one or more lower growth scenarios; however, on the basis of the discussion of available site options, it is not possible to identify any such scenario.

As such, there are **no reasonable alternatives** in respect of employment land.

Appendix III: Gypsies and Travellers

Introduction

This appendix gives consideration to meeting the accommodation needs of Gypsies and Travellers and Travelling Showpeople in turn. Under each heading, the aim is to give consideration to:

- **Needs** – as understood from a Gypsy and Traveller Accommodation Assessment (GTAA);
- **Supply options** – including rolling forward existing committed options, intensification and expansion of existing sites, new standalone allocations and allocations as part of strategic housing or employment led sites; and
- **Reasonable alternatives** - i.e. alternative approaches to supply for the plan area as a whole, with a focus on meeting needs alongside wider plan objectives.

Gypsies and travellers

Set out below is a discussion of need, supply options and reasonable alternatives in turn.

Needs

There is a total need for **158 pitches** over the plan period, of which **113 pitches** are needed in the first five years of the plan period (Government guidance is clear that attention should focus on this early period).

However, around 18% of the need is for Gypsies and Travellers who do not meet the 'planning definition' set out within the Government's Planning Policy on Traveller Sites (PPTS, 2015), which relates to the question of active travelling. Government policy is clear that pitches only need to be provided for Gypsies and Travellers that meet the PPTS definition. However, some local authorities seek to meet need in full (sometimes referred to as full 'cultural' need), mindful that those who do not meet the definition will often seek a pitch, or caravan, to meet their accommodation needs, not bricks and mortar housing.

This issue is also pertinent considering a recent Court of Appeal decision: Lisa Smith v Secretary of State for Levelling Up, Housing & Communities and Others [2022] EWCA Civ 1391. It is clear from this judgement that the PPTS has not been rendered unlawful; however, the Secretary of State accepted that the definition of travellers within PPTS indirectly discriminated against elderly and disabled gypsies and travellers. Consequently, this judgement is considered to underline the importance of ensuring that the needs of all travellers are addressed in the local plan, and in a way which does not discriminate.

Supply options

A starting point is supply from new sites that have gained planning permission since the start of the plan period. This amounts to **24 pitches**, which is significant. This supply is from 11 sites, with a spatial concentration at five parishes (all in the southern plan area): Fishbourne, Hunston, Sidlesham, West Ashling and Westbourne.

In addition, there are **7 pitches** (potentially rising to 8, as discussed in the Council's Background Paper), that are vacant/unimplemented within existing sites, i.e. sites consented prior to the start of the plan period.

The above elements of supply are more-or-less a 'given'. The first supply component associated with a significant choice is 'intensification' of existing sites. The Council's Background Paper explains a detailed process undertaken to identify the extent of new supply from intensification, and ultimately identifies new supply of **11 pitches**. There can be the potential to question a strategy with heavy reliance on intensification, with a view to avoiding overcrowding on sites or sites becoming possibly too large (leading to potential management issues and tensions with the settlement community). However, ultimately the process led by the Council is considered suitably detailed and, in turn, robust. The analysis set out in the Council's Background Paper explains that the decision to support intensification at three sites is "finely balanced", particularly since all three sites are located quite close to one another, in the **Westbourne** / **Funtington** / **West Ashling** area, between the A27 and the SDNP boundary, to the west of Chichester). However, in two of these cases the conclusion is that, on balance, there should be support for only "very limited" intensification equating to just one additional pitch.

The above supply components total 43 pitches, and it can be reasonably assumed that all would come forward within the first five years of the plan period. Furthermore, on the basis of past pitch delivery rates, it can be assumed that 45 pitches will come forward as windfall over this period. This would lead to a total supply of 88 pitches, in comparison to a total need for 113 pitches in the first five years, and a need for 90 pitches for those meeting the PPTS definition.

This serves to give an indication of the scale of the shortfall / residual need to be met by other sources of supply.

There is also a need to be mindful of the potential to question the windfall supply; specifically, whether a lower figure might be assumed (leading to a higher residual need), to reflect an assumed reduced rate of windfall under a scenario whereby there is a more plan-led approach to supply than has been the case in the past.

There are two other potential sources of supply: 1) new sites; and 2) new sites as part of strategic allocations. Importantly, only (1) has the potential to contribute supply within the first five years of the plan period (on the basis that strategic allocations are unlikely to deliver new pitches in the first five years of the plan period).

New sites

With regards to **new sites**, the Council led a detailed site sifting process, which led to two sites being identified as suitable for allocation, with a total capacity of just **2 pitches**. Both would involve expansion of existing sites. One of these sites is perhaps somewhat marginal because, as set out in the Background Paper: *"The cumulative growth of this wider cluster of pitches and plots [Bracklesham] is becoming concerning, and will need to be carefully managed in order to ensure that it doesn't become excessively large."* However, the allocation is for just one pitch.

At this point, there is also a need to consider **omission sites**, i.e. sites not supported for allocation on the basis of the Council-led site sifting process. These break down into three categories:

1. Sites that are not the subject of a current planning application;
2. Sites that are the subject of a current planning application; and
3. Sites that are the subject of a refused planning application that is currently being appealed.

With regards to (1), the Background Paper discusses two sites, namely: Pinks Four, Birdham; and Land south of Little Willows, Hunston Road, Hunston. The former is suitable other than in terms of uncertain access arrangements, hence there is nothing to be gained from further appraisal work to explore the possibility of allocation. With regards to the latter, the Background Paper explains that: *"The decision as to whether to allocate this site is considered to be finely balanced."* As such, the possibility of allocation (3 pitches) is discussed below.

With regards to (2), the Background Paper explains that there are four sites with current pending planning applications for a total of 5 pitches (including 2 pitches in the West Ashling / Westbourne area). The logical step is to allow for these planning applications to be determined in due course, rather than seeking to reach a decision on suitability at the current time, with a view to a local plan allocation. There can be no certainty regarding which, if any, of these sites will ultimately gain planning consent, but there is a strong possibility of some additional supply from one or more of these sites (see discussion of total supply below).

With regards to (3), this is an important issue for consideration. The Background Paper records that there are nine sites with current pending planning appeals, with a total capacity of 27 pitches. Importantly, of these 27 pitches, 26 are proposed to come forward in the aforementioned **Westbourne** / **Funtington** / **West Ashling** area.

There is a need to place weight on the Council's reasons for refusing permission at these sites. Equally, as with the four sites that are currently the subject of pending planning applications, there is a strong case for letting the appeals take their course, rather than attempting to pre-judge the outcome.

However, on the other hand, there is a strategic factor at play, which is that for 7 of the 8 sites that are in the Westbourne / Funtington / West Ashling area, one of the reasons for refusal (although in no case is this the only reason) relates to a concern regarding a disproportionate number of pitches in the local area (N.B. these concerns do necessarily relate to the broad area as a whole, i.e. may relate to specific locations within the broad area, e.g. Westbourne in particular). In this light, there is arguably a strategic consideration, that might be explored through the local plan-making process, regarding the extent to which the overall number of pitches in this area constitutes an issue, and whether there are any steps that might be taken to mitigate the issue. However, on balance, this is not considered to be the case, for the following reasons:

Concerns regarding a disproportionate number of pitches are considered to be reasonably well-founded. For example, there is a need to consider the rural nature of this area, which relates closely to the SDNP, and the proximity of Priors Leaze Lane Travelling Showpeople site, which is nearby to the south of the A27, between Southbourne and Nutbourne / Hambrook. This is a large site, and is generating a significant need for additional plots, which is likely need to be met through the local plan, as discussed further below.

To reiterate, in each of the cases there were reasons for refusal other than the matter of a perceived disproportionate number of pitches in the area (N.B. please see the Decision Notices for further information).[25]

Strategic allocations

On the basis of the discussion above, supply is potentially almost sufficient to meet the needs of those Travellers meeting the PPTS definition for the first five years of the plan period, but falls short of meeting the full 'cultural' need, and there is potentially a shortfall across the plan period as a whole, depending on windfall assumptions. It is important to consider the possibility of a reduced windfall assumption, and also a need to account for the risk of some elements of the identified supply not coming forward as anticipated. However, on the other hand, there could be some additional supply over-and-above that which is identified above, notably from the 'omission sites'.

Overall, the simple fact is that there is a strong argument for maximising the supply of new pitches from strategic allocations, albeit recalling that strategic allocations will not deliver in the first five years of the plan period.

The Council's Background Paper considers in detail the question of the total supply that might be achieved through strategic allocations. There are four strategic allocations with the potential to deliver one or more Traveller sites, and the case for supporting small sites, comprising 3 or 4 pitches each, is considered strong. The Background Paper proposes the following:

- Land East of Chichester (680 homes) – 9 pitches
- Highgrove Farm (245 homes) – 3 pitches
- Maudlin Farm (270 homes) – 3 pitches
- Southbourne broad location for development (1,050 homes) – 12 pitches

Considerations include:

- Land East of Chichester – it is very difficult to envisage more than 9 pitches, noting that the scheme is set to deliver a primary school and other non-housing uses and the site boundary has been reduced in extent (to accommodate a strategic wildlife corridor), with the site promoters arguing for a larger site.
- Highgrove Farm – the possibility of slightly more pitches might be envisaged, however, there is a need to consider that there is a pending planning application for a scheme that does not include a Traveller site.
- Maudlin Farm – the configuration of this site is less suited to additional supply, relative to Highgrove Farm. It could be challenging to achieve access to one or more traveller sites, including given concerns regarding impacts to historic lanes that are now bridleways, and historic hedgerows. Also, A27 proximity is a constraint.
- Southbourne – there is a need to consider the proximity of the Priors Lease Lane Travelling Showpeople site and also the aforementioned Westbourne / Funtington / West Ashling cluster of Traveller sites. With regards to Travelling Showpeople, there is a very strong argument for additional supply within this area, through expansion of the existing Priors Leaze Lane site and/or through new supply within the Southbourne broad location for development. As discussed in Sections 5 and 6 of this report, the possibility of a more comprehensive scheme – e.g. 1,500 homes – is a reasonable option for consideration, at the current time, and under this scenario there might be the potential to deliver more than 12 pitches. However, assuming a 1,050 home scheme, then it is difficult to see a clear argument for supporting significantly more than 12 pitches.
- All sites – might potentially deliver slightly more pitches, e.g. assuming sites comprising 4 pitches instead of 3; however, the number of additional pitches delivered would be of limited significance.

Reasonable alternatives

The supply options discussed above (consented sites, vacant pitches, intensification, new allocations (extensions) and supply from strategic sites (27 pitches in total) leads to a total supply of 72 pitches, of which all should deliver in the first five years other than supply from strategic allocations. Furthermore, the calculated windfall assumption is 9 pitches per annum, i.e. 135 pitches over a 15 year period.

[25] Decision notices are available at the following hyperlinks: 19/00445/FUL; 20/00234/FUL; 20/00534/FUL; 20/00950/FUL; 20/00956/FUL; 20/03306/FUL; 20/03164/FUL.

On this basis, there is good potential to meet needs both in the first five years (as discussed in the box above) and over the plan period as a whole (with the headline figure being a need for 158 pitches). Also, there will be the potential to further boost supply through a subsequent Site Allocations plan, as discussed in the Background Paper.

However, as discussed, there is an argument for planning for reduced windfall supply (in the latter part of the plan period), and it could be that not all the identified new supply (72 pitches) comes forward as anticipated. As such, there are arguments for exploring the possibility of additional sources of supply.

However, it is not clear that any reasonable scenario involving additional supply can be identified at the current time. The possibility of additional supply from strategic allocations can be envisaged, but it is not clear that there is a scenario involving significantly higher growth that would allow for meaningful appraisal (i.e. with differential significant effects relative to the emerging preferred approach).

As such, there are **no reasonable alternatives** in respect of meeting Gypsy and Traveller accommodation needs.

Travelling Showpeople

Set out below is a discussion of need, supply options and reasonable alternatives in turn.

Needs

There is a need for **40 plots**, of which **26 plots** are needed in the first five years of the plan period.

Supply options

The first option for consideration is the intensification of existing sites. Work led by the Council has served to identify the potential for intensification at one site, leading to the supply of **two plots**; however, there is a delivery risk, with the Background Paper explaining that… *"further evidence is likely to be necessary in relation to flood risk, and this would need to be addressed in more detail as part of future planning applications."*

There are no other sites in contention for allocation; however, there is a clear argument for requiring a Travelling Showpeople site as part of the **Southbourne** broad location for development. This is because the broad location is close to Priors Leaze Travelling Showpeople site, which is large site generating a need for **12 plots**.[26]

There is also a clear argument for delivering a new Travelling Showpeople site within the South of Bognor Road employment allocation, which is discussed above in Appendix II. This is because the site is in very close proximity to Coles Yard Travelling Showpeople site, which is located within an existing employment area at the edge of Chichester, and is generating a need for **5 plots**. It is important to meet Travelling Showpeople accommodation needs in close proximity to source, to ensure accommodation close to vehicles, machinery etc.

Reasonable alternatives

It does not appear possible for the Council to meet the 5-year need (26 plots), with an identified supply of just 2 plots. One way of delivering additional supply might involve proactively exploring the potential to bring forward an expansion of Priors Leaze Lane, but this would involve significant additional work, including in conjunction with both Southbourne and Chidham and Hambrook Parish Councils. It would risk unduly delaying the local plan, and could hinder plans to bring forward the Southbourne broad location for development.

In addition to 2 plots in the first five years of the plan period, there will also be two new sites for a total of 17 plots as part of strategic allocations (one residential-led and one employment-led). As such, there is also a shortfall to need (40 plots) over the plan period as a whole.

The final potential supply component is windfall. Historic delivery rates in this regard show that there has been a notable level of supply over the past 10 years, at an average of 2 plots per annum. If that were to be applied to the plan period then that would be 30 plots through windfall. If combined with the above that would equate to a total supply of 49 plots, such that the identified need figure would be met. However, a large amount of that windfall would presumably be at Prior Leaze Lane, hence it would not be appropriate to assume total supply of 49 plots (on the assumption that windfall within Southbourne parish needs to be subtracted from the Southbourne broad location for development requirement).[26] Assuming that windfall is 12 plots fewer than would otherwise be anticipated, due to the needs of Priors Leaze Lane being met through a new site as part of the Southbourne broad location for development, then total supply might be 37 plots (49 minus 12), which is quite close to identified need for the plan period as a whole. There would also be the potential to allocate more sites via a Site Allocations plan.

As such, there are **no reasonable alternatives** in respect of Travelling Showpeople accommodation needs.

[26] The potential for windfall expansion of Priors Lease might also be envisaged. However, given that the need arising from Priors Lease is 12 plots, then any assumed windfall would need to taken off the 12 plots supply from the broad location.

Appendix IV: Site options GIS analysis

Introduction

As discussed in Section 5.3, as a relatively minor step in the process of arriving at reasonable growth scenarios (see Figure 5.1) all site options were subjected to GIS analysis. Specifically, all 193 developable HELAA sites were analysed, plus one additional site (West of Loxwood). This was an input to Section 5.4 / Appendix V.

The outcome of the analysis is in the form of a large spreadsheet of data, with a row for each of the developable HELAA sites and around 150 columns that present information on the site (e.g. size, name), performance data (e.g. distance to a SSSI) and supplementary attribute information (e.g. name of the nearest SSSI).

This analysis fed-into work to define reasonable growth scenarios in 2022, and the aim of this section is to present summary insights into the **spreadsheet**, considering the data both:

- within each **column** of the spreadsheet – i.e. information on the spread of data for each performance measure, including site options that stand-out as performing notably well / poorly, and the relative performance of sub-sets of site options (e.g. proposed allocations versus omission sites); and
- across each **row** of the spreadsheet – i.e. considering how each site option performs, albeit it is not possible to reach an overall conclusion on performance, because the individual performance criteria are not weighted.

Limitations

GIS analysis of the spatial relationship between sites and various push (e.g. historic environment designations) and pull (e.g. schools) features cannot be considered sophisticated analysis. GIS analysis of site options:

- rarely highlights site-specific issues / opportunities that are not otherwise readily apparent to the specialist; and
- highlights issues / opportunities that are 'theoretical', and which can often be discounted, or assigned limited weight in decision-making, upon closer inspection. For example, where a site is distant from accessible greenspace this can be addressed by delivery of new accessible greenspace onsite.

As such, GIS analysis of site options should not be overly relied upon, at the expense of a focus on qualitative analysis informed by wide ranging evidence, including the views of stakeholders, and professional judgement.

The analysis should certainly not be used as a primary means for arriving at overall conclusions on sites. Any attempt to utilise the analysis in this way would necessitate a process of Multi Criteria Analysis (MCA) whereby a weighting is assigned to each of the performance metrics, and any such process is fraught with challenges.

Structure of this appendix

Set out below is:

- further discussion of **methodology**;
- analysis outcomes by performance metric (i.e. each **column** in the spreadsheet)
- analysis outcomes by site option (i.e. each **row** in the spreadsheet)

Methodology

The first step was to gather GIS data.

- Site options – the Council provided 'red line boundaries' for all HELAA sites. One of the issues / limitations is that large land-holdings sometimes get submitted, within which might be contained realistic site options.
- Constraint / push and opportunity / pull features - much data is available nationally ('open source') and range of other data is held by the Council, including the adopted local plan policies map, and other GIS layers shown at: https://www.chichester.gov.uk/article/25622/Maps. However, there are a range of potential issues to be mindful of, including data becoming out of date, only being available for certain parts of the borough or not being available for neighbouring local authority areas.

The second step was then to run the analysis, i.e. query the spatial relationship between each site option and each push / pull feature (e.g. distance to a listed building, intersect with a flood zone). There are two points to note:

- Distance was measured “as the crow flies” (it can also be possible to calculate distance by road, footpath etc).
- Distance was calculated from the nearest point of each site option.

Having generated the spreadsheet of data, the final step was then to interrogate, utilise and report the data.

Analysis outcomes by metric

The aim here is to present insights into trends across the data for a range of key metrics and summarise the approach taken to categorising / differentiating the performance of site options on a **red** ➔ **light red** ➔ **amber** ➔ **light green** ➔ **green** scale (N.B. this can be referred to as a ‘RAG’ scale).

Air quality management area (AQMA)

Firstly, it is important to note a slight issue with the data. Specifically, the data was run in mid-2022, prior to two of the three AQMAs in the plan area being revoked (all three were in Chichester itself, or on the edge of Chichester). This is not considered to be a major issue, as it is fair to assume that the locations of the two revoked AQMAs could still be associated with a degree of air quality sensitivity.

The analysis finds that no sites intersect an AQMA, and the nearest site is 54m distant. This is a very small brownfield site. The second closest site is 135m distant, and this is a significant site option (part of the Land South-West of Chichester proposed allocation from the Preferred Approach stage; now no longer supported, as discussed in Appendix V); however, the AQMA in question (Stockbridge Roundabout) was revoked in August 2022.

The average distance of all sites from an AQMA is 6,100m. It is very difficult to determine distance thresholds, when seeking differentiate between the performance of sites on a RAG scale, e.g. given that sensitivity relates to traffic flows more so than distance / proximity. As such, it is important to categorise performance on the basis of the spread of data (with a view to differentiating on the basis of relative performance) as-much-if-not-more-so than on the basis of absolute thresholds. On balance, it is considered appropriate to:

- assign **red** to the 40 sites within 2,000m;
- assign **green** to 52 sites beyond 5,000m; and
- place the remaining 56 sites on a **colour scale** (from light red to light green) according to distance.

Special Protection Area (SPA)

Numerous site options (i.e. developable HELAA sites) are in quite close proximity to an SPA, and in the vast majority of cases this is the Chichester and Langstone Harbours SPA, although for several site options (in fairly close proximity to an SPA) the nearest SPA is Pagham Harbour SPA or Solent and Dorset Coast SPA.

As an international designation, there is an argument for taking a precautionary approach, and assigning ‘red’ to all sites within a wide area, e.g. 2km or perhaps even further afield. However, the effect of doing so would be to fail to differentiate between those site options, i.e. flag those that are particularly close, and so give rise to a particular concern. On balance, it is considered appropriate to:

- assign **red** to the 61 sites within 1,000m;
- assign **green** to 47 sites beyond 5,000m; and
- place the remaining 86 sites on a **colour scale** (from light red to light green) according to distance.

Other points to note, with regards to the spread of data, include:

- Of the 12 sites closest to an SPA, 7 are in Southbourne Parish
- Notable average distances are:
  - East-west corridor: 2,476m
  - Manhood Peninsula: 1,706m
  - Northeast plan area: 11,285m

Special Area of Conservation (SAC)

The SACs of note are primarily also designated as SPA; however, there is one SAC of note that is not also designated as an SPA, namely the Mens, which is a notable constraint to growth in the northeast plan area.

With regards to RAG distance thresholds, the same thinking applies as for SPAs, namely:

- assign **red** to the 47 sites within 1,000m;
- assign **green** to 33 sites beyond 5,000m; and
- place the remaining 114 sites on a **colour scale** (from light red to light green) according to distance.

Other points to note, with regards to the spread of data, include:

- Focusing on the Mens, all site options at Wisborough Green and Kirdford are within ~2,500m
- 4 of the 5 closest sites at Wisborough Green, including 1 site that is within 500m

Site of Special Scientific Interest (SSSI)

As an initial point, it is important to note that all sites designated as SPA or SAC are also designated as SSSI.

Again, it is very difficult to identify effective distance thresholds. 400m is a well-established threshold for recreational pressure (e.g. dog walkers), which is an important consideration for many SSSIs (but not all), but there are a range of other 'impact pathways' (e.g. hydrological), plus recreational pressure can come from much further afield. Natural England has defined 'impact risk zones' for all SSSIs, but these are very extensive, such that they capture many site options and, in turn, can fail to enable effective differentiation between site options.

On balance, it is considered appropriate to:

- assign **red** to the 22 sites within 500m;
- assign **green** to 67 sites beyond 2,000 as green; and
- place the remaining 105 sites on a **colour scale**.

Other points to note, with regards to the spread of data, include:

- The Upper Arun SSSI is the key site (that is not also internationally designated.
- It constrains Wisborough Green in particular, with one site notably within 100m, although this is a site only under consideration for employment, and is not discussed as a better performing site in Appendix V.

Local Wildlife Site (LWS)

This is a local level designation, in contrast to the international and national designations discussed above.

There is an argument for only assigning 'red' to those sites that intersect (four sites) or are adjacent (three sites are within 5m); however, on balance, it is considered appropriate to:

- assign **red** to the 31 sites within 200m;
- assign **green** to 80 sites beyond 1,000m as green; and
- place the remaining 83 sites on a **colour scale**.

Other points to note, with regards to the spread of data, include:

- 6 sites (all at Hunston / North Mundham) are < 200m of Chichester Gravel Pits and Leythorne Meadow LWS.
- Notable average distances are:
  - East-west corridor: 1,079m
  - Manhood Peninsula: 829m
  - Northeast plan area: 615m

All metrics

Having introduced the broad approach, the table below summarises the RAG-shading approach taken to all 29 performance metrics assigned a column within the table below (N.B. performance was also measured for a range of other metrics, but the outcome of the analysis is of less importance to the task of differentiating site options).

It is important to reiterate that the aim is not to appraise significant effects, but rather simply to differentiate the relative performance of site options, as an input to the task of arriving at reasonable growth scenarios.

Table A: Thresholds used for classifying performance on a RAG scale

Metric	Red	Light red / amber / light green scale	Dark green
Air Quality Management Area (AQMA)	<2,000m	2,000m – 5,000m	>5,000m
Special Protection Area (SPA)	<1,000m	1,000m – 5,000m	>5,000m
Special Area of Conservation (SAC)	<2,500m	1,000m – 5,000m	>5,000m
Site of Special Scientific Interest (SSSI)	<500m	500m – 2,000m	>2,000m
Local Wildlife Site (LWS)	<200m	200m – 1,000m	>1,000m
Ancient woodland	<50m	50m – 500m	>500m
Priority habitat	>10% intersect	10% intersect – 20m distant	>20m distant
Tree Protection Order (TPO)	>50% intersect	50% intersect – adjacent	Not adjacent
Strategic wildlife corridor	>50% intersect	50% intersect – adjacent	Not adjacent
Conservation area[27]	<50m	50m – 1,000m	>1,000m
Grade I listed building[28]	<200m	50m – 2,000m	>2,000m
Grade II* listed building	<100m	100m – 500m	>500m
Grade II listed building	<50m	50m – 250m	>250m
Registered historic park/garden (RPG)	<1,000m	1,000m – 4,000m	>4,000m
Scheduled monument	<50m	50m – 500m	>500m
Archaeological record	>50% intersect	50% intersect – adjacent	Not adjacent
South Downs National Park (SDNP)	<1,000m	1,000m – 5,000m	>5,000m
Area of Outstanding Nat Beauty (AONB)	<1,000m	1,000m – 5,000m	>5,000m
Landscape capacity	Low	Medium/low – Medium/high	Not assessed
Flood zone 2	>30% intersect	30% intersect – intersect	No intersect
1 in 1,000 yr surface water flood risk	>50% intersect	30% intersect – 1% intersect	<1% intersect
Agricultural land	Grade 1	Grade 2 – Grade 4	Other
Minerals safeguarding area		% intersect	No intersect
Primary school	>1,500m	1,500m – 400m	<400m
Secondary school	>5,000m	5,000m – 1,000m	<1,000m
Doctors surgery	>2,000m	2,000m – 500m	<500m
Train station	>10,000m	10,000m – 2,000m	<2,000m
Bus stop	>500m	500m – 100m	<100m
Index of Multiple Deprivation (IMD)	Light red (relatively affluent) to light green (relatively deprived) colour scale		

Analysis outcomes by site option

The table below includes a row for each of the developable HELAA sites. It is important reiterate that: the aim is not to predict significant effects, but rather simply to differentiate the relative performance of site options; and the criteria are not assigned any weight, nor is it fair to assume equal weight.

Structure of the table

The table presents sites by broad area, parish and then by size.

Also, within the table

- **Bold text** indicates a proposed allocation, a parish that is assigned a parish allocation (over-and-above completions and commitments as of December 2022) and also those sites falling within the scope of the Southbourne broad location for development; and

An asterisk **(*)** indicates a supply component that is a variable across the RA growth scenarios in Section 6.

[27] Eight HELAA sites intersect a conservation area.
[28] Two HELAA sites are within 50m of a Grade I listed building.

Table B: GIS analysis of all developable HELAA sites

HELAA ref.	Parish	Broad area	Size (ha)	AQMA	SPA	SAC	SSSI	LWS	Ancient woodland	Priority habitat	TPO	Wildlife corridor	Conservation area	G1 listed building	G2* listed building	G2 listed building	RPG	Scheduled monument	Archaeological Record	National park	AONB	Landscape capacity	Flood Zone	SWFR	Agricultural land	Minerals safeguarding	Primary School	Secondary School	Doctors Surgery	Train Station	Bus stop	IMD
HBO0025	Bosham	East-west corridor	159																													
HBO0009	Bosham	East-west corridor	19.8																													
HBO0002a	Bosham	East-west corridor	12.6																													
HBO0011	Bosham	East-west corridor	3.3																													
HBO0003	Bosham	East-west corridor	1.6																													
HBO0023	Bosham	East-west corridor	0.4																													
HBX0007	**Boxgrove**	East-west corridor	16.9																													
HBX0002b	**Boxgrove**	East-west corridor	11.2																													
HBX0003a	**Boxgrove**	East-west corridor	4.7																													
HBX0006	**Boxgrove**	East-west corridor	3.1																													
HBX0002a	**Boxgrove**	East-west corridor	2.3																													
HBX0012	**Boxgrove**	East-west corridor	1.2																													
HBX0011	**Boxgrove**	East-west corridor	1																													
HBX0010	**Boxgrove**	East-west corridor	0.9																													
HBX0013	**Boxgrove**	East-west corridor	0.8																													
HCC0039	**Chichester**	East-west corridor	31.8																													
HCC0061	**Chichester**	East-west corridor	12.4																													
HCC0038	**Chichester**	East-west corridor	11.3																													
HCC0057	**Chichester**	East-west corridor	9.1																													
HCC0050b	**Chichester**	East-west corridor	4.3																													
HCC0037	**Chichester**	East-west corridor	2.2																													

HELAA ref.	Parish	Broad area	Size (ha)	AQMA	SPA	SAC	SSSI	LWS	Ancient woodland	Priority habitat	TPO	Wildlife corridor	Conservation area	G1 listed building	G2* listed building	G2 listed building	RPG	Scheduled monument	Archaeological Record	National park	AONB	Landscape capacity	Flood Zone	SWFR	Agricultural land	Minerals safeguarding	Primary School	Secondary School	Doctors Surgery	Train Station	Bus stop	IMD
HCC0035	**Chichester**	East-west corridor	0.7																													
HCC0059	**Chichester**	East-west corridor	0.6																													
HCC0009	**Chichester**	East-west corridor	0.5																													
HCC0029b	**Chichester**	East-west corridor	0.4																													
HCC0058	**Chichester**	East-west corridor	0.3																													
HCC0040a	**Chichester**	East-west corridor	0.2																													
HCC0060	**Chichester**	East-west corridor	0.1																													
HCH0012a	**C'ham & H'brook***	East-west corridor	15.5																													
HCH0007a	**C'ham & H'brook***	East-west corridor	12.2																													
HCH0004	**C'ham & H'brook***	East-west corridor	9.4																													
HCH0014a	**C'ham & H'brook***	East-west corridor	7.8																													
HCH0022	**C'ham & H'brook***	East-west corridor	6.3																													
HCH0024	**C'ham & H'brook***	East-west corridor	2.7																													
HCH0019b	**C'ham & H'brook***	East-west corridor	1.6																													
HCH0008	**C'ham & H'brook***	East-west corridor	1.5																													
HCH0023	**C'ham & H'brook***	East-west corridor	1.5																													
HCH0003	**C'ham & H'brook***	East-west corridor	1.2																													
HCH0025	**C'ham & H'brook***	East-west corridor	0.9																													
HCH0009	**C'ham & H'brook***	East-west corridor	0.9																													
HFB0004a	**Fishbourne**	East-west corridor	19.2																													
HFB0022	**Fishbourne**	East-west corridor	12.3																													
HFB0025	**Fishbourne**	East-west corridor	7.1																													

HELAA ref.	Parish	Broad area	Size (ha)	AQMA	SPA	SAC	SSSI	LWS	Ancient woodland	Priority habitat	TPO	Wildlife corridor	Conservation area	G1 listed building	G2* listed building	G2 listed building	RPG	Scheduled monument	Archaeological Record	National park	AONB	Landscape capacity	Flood Zone	SWFR	Agricultural land	Minerals safeguarding	Primary School	Secondary School	Doctors Surgery	Train Station	Bus stop	IMD
HFB0018a	**Fishbourne**	East-west corridor	3.6																													
HFB0016	**Fishbourne**	East-west corridor	1.5																													
HFB0012	**Fishbourne**	East-west corridor	1.5																													
HFB0007	**Fishbourne**	East-west corridor	1																													
HFB0021	**Fishbourne**	East-west corridor	0.8																													
HFB0029	**Fishbourne**	East-west corridor	0.5																													
HFB0006	**Fishbourne**	East-west corridor	0.3																													
HFB0023	**Fishbourne**	East-west corridor	0.3																													
HFU0003a	Funtington	East-west corridor	116																													
HFU0004	Funtington	East-west corridor	12.0																													
HFU0005	Funtington	East-west corridor	6.5																													
HFU0006	Funtington	East-west corridor	5.9																													
HFU0009	Funtington	East-west corridor	5.1																													
HFU0002	Funtington	East-west corridor	3																													
HFU0007	Funtington	East-west corridor	2.7																													
HFU0008	Funtington	East-west corridor	2.2																													
HFU0010	Funtington	East-west corridor	0.2																													
HOV0019	Oving	East-west corridor	110																													
HOV0017	Oving	East-west corridor	49.1																													
HOV0020	Oving	East-west corridor	35.4																													
HOV0005a	Oving	East-west corridor	21.8																													
HOV0007	Oving	East-west corridor	3.1																													

HELAA ref.	Parish	Broad area	Size (ha)	AQMA	SPA	SAC	SSSI	LWS	Ancient woodland	Priority habitat	TPO	Wildlife corridor	Conservation area	G1 listed building	G2* listed building	G2 listed building	RPG	Scheduled monument	Archaeological Record	National park	AONB	Landscape capacity	Flood Zone	SWFR	Agricultural land	Minerals safeguarding	Primary School	Secondary School	Doctors Surgery	Train Station	Bus stop	IMD
HOV0006	Oving	East-west corridor	2.9																													
HOV0011	Oving	East-west corridor	2.9																													
HOV0016	Oving	East-west corridor	2.6																													
HOV0001	Oving	East-west corridor	1.2																													
HOV0023	Oving	East-west corridor	0.8																													
HOV0012	Oving	East-west corridor	0.7																													
HOV0013	Oving	East-west corridor	0.5																													
HOV0015a	Oving	East-west corridor	0.2																													
HSB0037	Southbourne	East-west corridor	118																													
HSB0037a	**Southbourne***	East-west corridor	72.4																													
HSB0047	**Southbourne***	East-west corridor	68.7																													
HSB0037a	**Southbourne***	East-west corridor	12.9																													
HSB0022a	**Southbourne***	East-west corridor	8.3																													
HSB0009	Southbourne	East-west corridor	6.2																													
HSB0007	**Southbourne***	East-west corridor	5.4																													
HSB0037a	Southbourne	East-west corridor	5																													
HSB0015a	**Southbourne***	East-west corridor	4.6																													
HSB0024	**Southbourne***	East-west corridor	4.4																													
HSB0001a	Southbourne	East-west corridor	4.1																													
HSB0012a	**Southbourne***	East-west corridor	3.7																													
HSB0034	**Southbourne***	East-west corridor	2.9																													
HSB0026a	**Southbourne***	East-west corridor	2.8																													

HELAA ref.	Parish	Broad area	Size (ha)	AQMA	SPA	SAC	SSSI	LWS	Ancient woodland	Priority habitat	TPO	Wildlife corridor	Conservation area	G1 listed building	G2* listed building	G2 listed building	RPG	Scheduled monument	Archaeological Record	National park	AONB	Landscape capacity	Flood Zone	SWFR	Agricultural land	Minerals safeguarding	Primary School	Secondary School	Doctors Surgery	Train Station	Bus stop	IMD
HSB0039a	Southbourne	East-west corridor	2.4																													
HSB0048	Southbourne	East-west corridor	2.3																													
HSB0039b	**Southbourne***	East-west corridor	1.4																													
HSB0006a	Southbourne	East-west corridor	1.4																													
HSB0029	Southbourne	East-west corridor	1.1																													
HSB0043	**Southbourne***	East-west corridor	1																													
HSB0005a	Southbourne	East-west corridor	0.9																													
HSB0046	**Southbourne***	East-west corridor	0.9																													
HSB0033	**Southbourne***	East-west corridor	0.7																													
HSB0027	**Southbourne***	East-west corridor	0.7																													
HSB0044	**Southbourne***	East-west corridor	0.4																													
HSB0045	**Southbourne***	East-west corridor	0.4																													
HTG0015	Tangmere	East-west corridor	17.6																													
HTG0013	Tangmere	East-west corridor	11.8																													
HTG0009	Tangmere	East-west corridor	4.9																													
HTG0005	Tangmere	East-west corridor	2																													
HWE0014	**Westbourne**	East-west corridor	7.1																													
HWE0013	**Westbourne**	East-west corridor	5.5																													
HWE0002b	**Westbourne**	East-west corridor	2.2																													
HWE0001	**Westbourne**	East-west corridor	1.9																													
HWE0002a	**Westbourne**	East-west corridor	1.1																													
HWE0004	**Westbourne**	East-west corridor	1.1																													

HELAA ref.	Parish	Broad area	Size (ha)	AQMA	SPA	SAC	SSSI	LWS	Ancient woodland	Priority habitat	TPO	Wildlife corridor	Conservation area	G1 listed building	G2* listed building	G2 listed building	RPG	Scheduled monument	Archaeological Record	National park	AONB	Landscape capacity	Flood Zone	SWFR	Agricultural land	Minerals safeguarding	Primary School	Secondary School	Doctors Surgery	Train Station	Bus stop	IMD
HWE0003	**Westbourne**	East-west corridor	0.4																													
HWH0014	Westhampnett	East-west corridor	14.1																													
HWH0003a	Westhampnett	East-west corridor	10.4																													
HWH0016	Westhampnett	East-west corridor	6.5																													
HWH0004a	Westhampnett	East-west corridor	3.5																													
HWH0012a	Westhampnett	East-west corridor	2.4																													
HWH0007	Westhampnett	East-west corridor	1.2																													
HWH0005a	Westhampnett	East-west corridor	0.8																													
HWH0015	Westhampnett	East-west corridor	0.4																													
HWH0013a	Westhampnett	East-west corridor	0.4																													
HAP0003a	Apuldram	M'hood Peninsula	48.9																													
HAP0003b	Apuldram	M'hood Peninsula	47.7																													
HAP0004	Apuldram	M'hood Peninsula	3.4																													
HAP0005b	Apuldram	M'hood Peninsula	2																													
HAP0005a	Apuldram	M'hood Peninsula	0.5																													
HBI0022	Birdham*	M'hood Peninsula	13.1																													
HBI0023	Birdham*	M'hood Peninsula	8.1																													
HBI0025	Birdham*	M'hood Peninsula	3.9																													
HBI0007	Birdham*	M'hood Peninsula	3.5																													
HBI0029	Birdham*	M'hood Peninsula	2.3																													
HBI0029a	Birdham*	M'hood Peninsula	2.3																													
HBI0012	Birdham*	M'hood Peninsula	1.4																													

HELAA ref.	Parish	Broad area	Size (ha)	AQMA	SPA	SAC	SSSI	LWS	Ancient woodland	Priority habitat	TPO	Wildlife corridor	Conservation area	G1 listed building	G2* listed building	G2 listed building	RPG	Scheduled monument	Archaeological Record	National park	AONB	Landscape capacity	Flood Zone	SWFR	Agricultural land	Minerals safeguarding	Primary School	Secondary School	Doctors Surgery	Train Station	Bus stop	IMD
HBI0028	Birdham*	M'hood Peninsula	1.3																													
HBI0026	Birdham*	M'hood Peninsula	0.8																													
HBI0009	Birdham*	M'hood Peninsula	0.3																													
HE0001	Earnley	M'hood Peninsula	9.5																													
HE0002	Earnley	M'hood Peninsula	9.2																													
HE0003	Earnley	M'hood Peninsula	1																													
HEWB0002a	E Witt'ing' & B'sham	M'hood Peninsula	16.2																													
HEWB0001a	E Witt'ing' & B'sham	M'hood Peninsula	9.9																													
HEWB0008	E Witt'ing' & B'sham	M'hood Peninsula	0.2																													
HHN0016	Hunston*	M'hood Peninsula	15.3																													
HHN0013	Hunston*	M'hood Peninsula	4.5																													
HHN0007	Hunston*	M'hood Peninsula	4.2																													
HHN0015	Hunston*	M'hood Peninsula	2.5																													
HHN0014	Hunston*	M'hood Peninsula	2.4																													
HHN0006	Hunston*	M'hood Peninsula	2.4																													
HHN0012	Hunston*	M'hood Peninsula	1.7																													
HHN0001	Hunston*	M'hood Peninsula	0.7																													
HHN0003	Hunston*	M'hood Peninsula	0.4																													
HNM0017a	North Mundham*	M'hood Peninsula	19.5																													
HNM0019	North Mundham*	M'hood Peninsula	15.4																													
HNM0012b	North Mundham*	M'hood Peninsula	8.0																													
HNM0012a	North Mundham*	M'hood Peninsula	7.4																													

HELAA ref.	Parish	Broad area	Size (ha)	AQMA	SPA	SAC	SSSI	LWS	Ancient woodland	Priority habitat	TPO	Wildlife corridor	Conservation area	G1 listed building	G2* listed building	G2 listed building	RPG	Scheduled monument	Archaeological Record	National park	AONB	Landscape capacity	Flood Zone	SWFR	Agricultural land	Minerals safeguarding	Primary School	Secondary School	Doctors Surgery	Train Station	Bus stop	IMD
HNM0013	North Mundham*	M'hood Peninsula	6.6																													
HNM0021a	North Mundham*	M'hood Peninsula	5.6																													
HNM0008a	North Mundham*	M'hood Peninsula	5.2																													
HNM0020	North Mundham*	M'hood Peninsula	2.5																													
HNM0015	North Mundham*	M'hood Peninsula	2.0																													
HNM0016	North Mundham*	M'hood Peninsula	2.0																													
HNM0003	North Mundham*	M'hood Peninsula	1.4																													
HNM0011	North Mundham*	M'hood Peninsula	0.8																													
HNM0007	North Mundham*	M'hood Peninsula	0.6																													
HNM0011a	North Mundham*	M'hood Peninsula	0.5																													
HNM0009	North Mundham*	M'hood Peninsula	0.3																													
HSY0010c	Selsey	M'hood Peninsula	15.8																													
HSY0010b	Selsey	M'hood Peninsula	11.8																													
HSI0004	Sidlesham	M'hood Peninsula	4.8																													
HSI0002a	Sidlesham	M'hood Peninsula	1.3																													
HWW0002a	West Wittering	M'hood Peninsula	12																													
HWW0009	West Wittering	M'hood Peninsula	1.1																													
HKD0010	**Kirdford***	Northeast	11.1																													
HKD0011	**Kirdford***	Northeast	6.5																													
HKD0001b	**Kirdford***	Northeast	2.0																													
HKD0009	**Kirdford***	Northeast	1.7																													
HKD0007	**Kirdford***	Northeast	1.6																													

HELAA ref.	Parish	Broad area	Size (ha)	AQMA	SPA	SAC	SSSI	LWS	Ancient woodland	Priority habitat	TPO	Wildlife corridor	Conservation area	G1 listed building	G2* listed building	G2 listed building	RPG	Scheduled monument	Archaeological Record	National park	AONB	Landscape capacity	Flood Zone	SWFR	Agricultural land	Minerals safeguarding	Primary School	Secondary School	Doctors Surgery	Train Station	Bus stop	IMD
HLX0016	**Loxwood***	Northeast	56																													
SE part of HLX0016*		Northeast	10.4																													
HLX0013a	**Loxwood***	Northeast	2.9																													
HLX0004	**Loxwood***	Northeast	1.8																													
HLX0007a	**Loxwood***	Northeast	1.2																													
HLX0003	**Loxwood***	Northeast	0.9																													
HLX0005a	**Loxwood***	Northeast	0.8																													
HLX0015	**Loxwood***	Northeast	0.6																													
HLX0006	**Loxwood***	Northeast	0.5																													
HLX0014	**Loxwood***	Northeast	0.2																													
HPI0009	**Plaistow and Ifold***	Northeast	195																													
HPI0002	**Plaistow and Ifold***	Northeast	7.0																													
HPI0004	**Plaistow and Ifold***	Northeast	0.9																													
HPI0010	**Plaistow and Ifold***	Northeast	0.8																													
HWG0011	**Wisborough Grn***	Northeast	5.5																													
HWG0020	**Wisborough Grn***	Northeast	2.3																													
HWG0019	**Wisborough Grn***	Northeast	1.4																													
HWG0004	**Wisborough Grn***	Northeast	1.3																													
HWG0022	**Wisborough Grn***	Northeast	0.6																													

Appendix V: Parish scenarios

Introduction

This appendix supplements Section 5.4, which presents the parish / settlement scenarios that fed into Section 5.5 and, in turn, the two sets of reasonable growth scenarios.

Methodology

This appendix considers all parishes in turn. Consideration is firstly given to parishes in the southern plan area, followed by parishes in the northeast plan area.

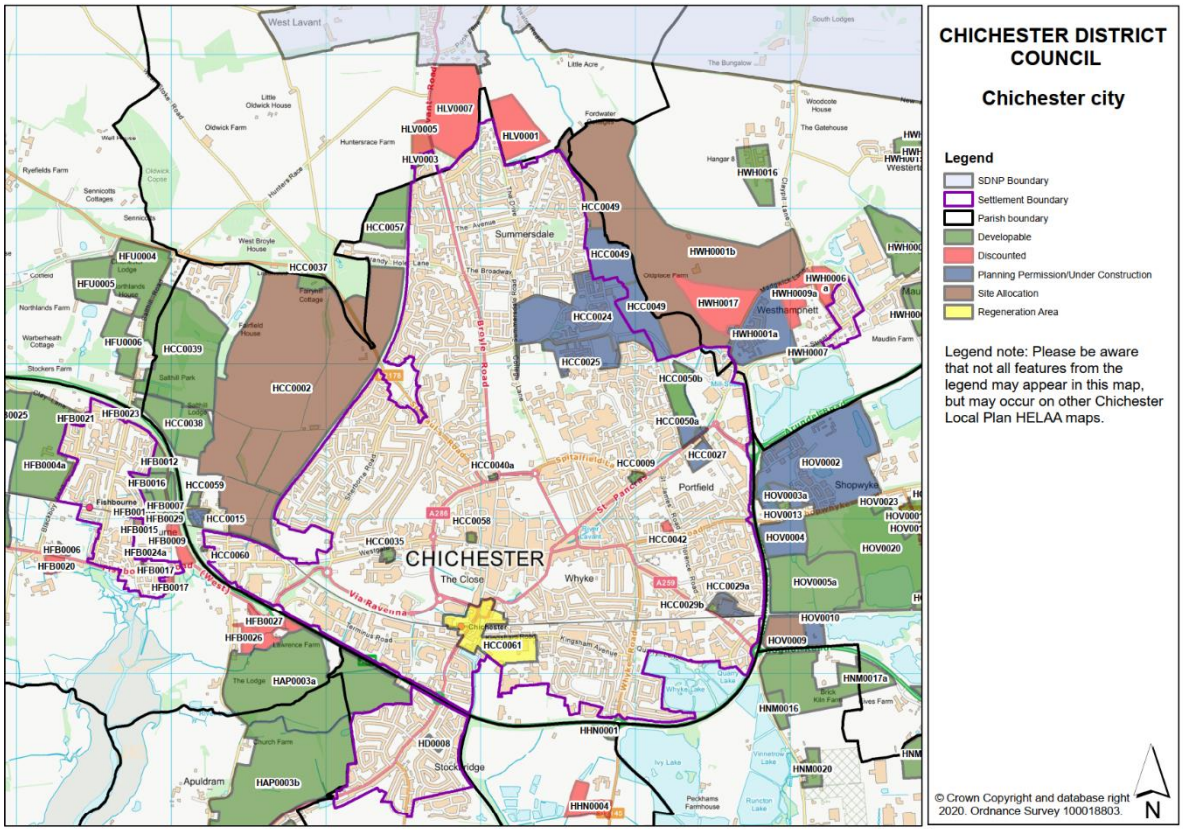
For each parish, the aim is to explore reasonable alternative approaches that might be taken to growth, either through one or more local plan allocations or a parish allocation (there is also a third option, namely a broad location, and the possibility of assigning a single parish both a local plan allocation and a parish allocation cannot be ruled out).

The ultimate aim is to reach a conclusion on parish / settlement scenarios that reasonably need to be taken forward to Section 5.5, where parish / settlement scenarios are combined in order to arrive at final district-wide reasonable growth scenarios. The aim is *not* to present a formal appraisal of reasonable alternatives, nor to discuss all feasible options to the same level of detail. Rather, the aim is to explore those options judged to be a more 'marginal', i.e. where the question of whether or not to take the option forward is finely balanced, mindful of site-specific, settlement-specific and broad strategic considerations. This approach is taken mindful of the legal requirement, which is to explain reasons for arriving at reasonable alternatives in "outline" terms (and mindful that site options are not reasonable alternatives).

Southern plan area

Parishes are considered broadly in order of suitability for growth, particularly mindful of the settlement hierarchy.

Chichester Parish



There is a clear strategic argument for maximising growth within Chichester Parish, which includes the City itself and surrounding land, particularly to the west. This is despite high completions and commitments, with 1,506 homes with planning permission (from 17 sites involving 5 or more homes) as of 1st April 2022.

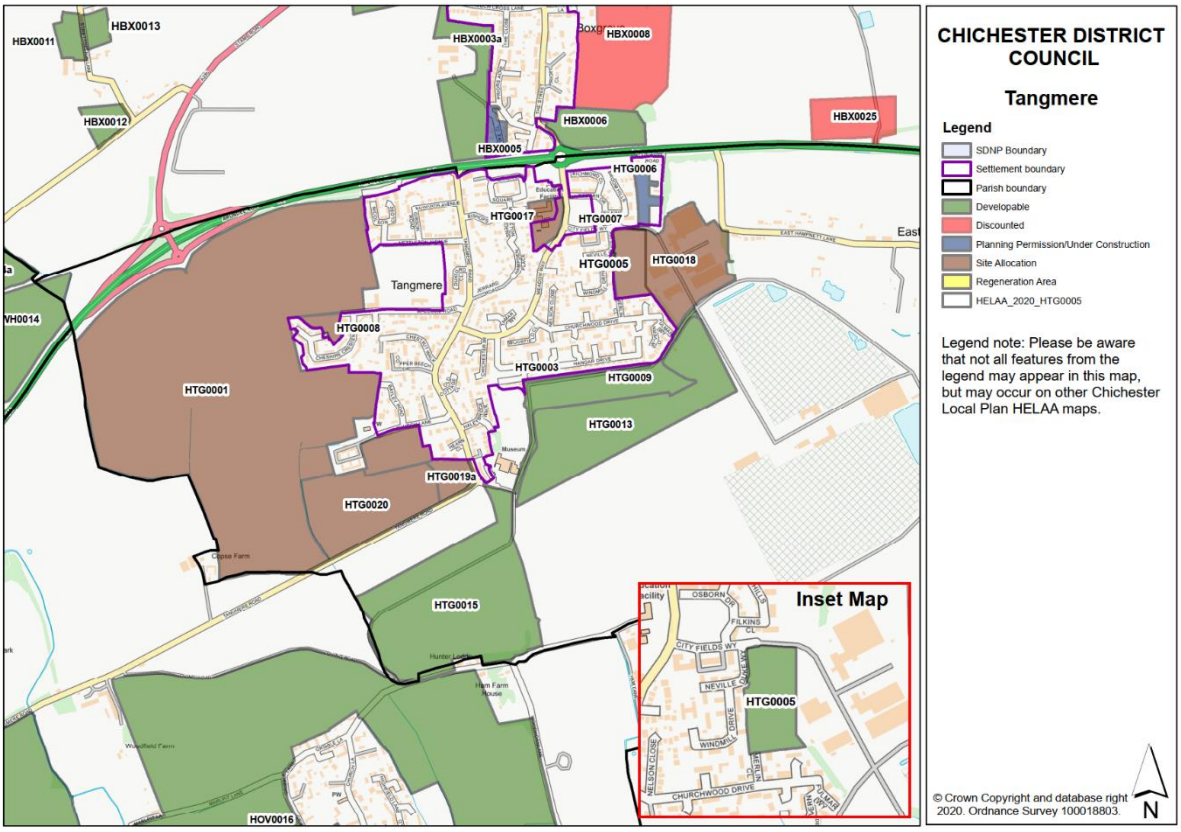
There is clear support for rolling forward the West Chichester SDL allocation, specifically the remaining part of the site (Phase 2) that is yet to gain planning permission. Also, there is strong support for allocating the Southern Gateway (HCC0061), which is a brownfield site previously thought to have capacity for 350 homes, but now with a revised capacity of 180 homes. The site is subject to flood risk, but there is potential for mitigation, e.g. ensuring non-residential ground floor uses.

The next consideration is the four developable HELAA sites to the west of Chichester, which are all now judged to be unsuitable for allocation, primarily because they intersect a proposed Strategic Wildlife Corridor. Also, three would further extend the Chichester West SDL, and the SDL promoters have not provided any information in respect of masterplanning options, and the fourth is located close to the northern extent of Chichester (distant from the train station) and west of the former railway line that is now a cycle path.

The capacity of the remaining developable HELAA sites is judged to be 190 homes, although it is important to note that one of these sites (HCC0050b) is affected by flood risk, which might reduce its capacity. Additionally, in November 2022 an additional site with a capacity of 80 homes was identified, when a planning permission expired, namely Portfield Football Club (N.B. these expired permission is not counted in the commitments figure, i.e. there is no double counting). On this basis, the HELAA capacity of sites other than Southern Gateway is 270 homes. If further capacity issues are identified then Chichester Parish could undertake a further site selection process.

In **conclusion**, there is only **one scenario** for Chichester Parish, involving completions, commitments and windfall plus allocation of the Southern Gateway for 180 homes *and* a parish allocation for 270 homes (450 homes in total).

Tangmere



The Tangmere Strategic Development Location (SDL) allocation from the adopted local plan now has a resolution to grant outline planning permission for 1,300 homes, subject to a Section 106 agreement. There is also a further site with planning permission for 38 homes, and two further neighbourhood plan allocations for a total of 27 homes.

There is a high-level water quality / nutrient neutrality argument for considering the possibility of additional growth, with the aforementioned strategic infrastructure update presented to Members on 29 July 2021 explaining (page 13): *"The EA confirm that new development should ideally look for connection to Tangmere WwTW."*

However, on the other hand, an important high level consideration is the lack of a train station at Tangmere, distance to Chichester and the fact that car journeys to Portsmouth and Southampton involve passing through all of the problematic A27 junctions. This is an important broad strategic consideration, as discussed in Section 5.2.

Also, at a more local level, additional growth would risk over-development, noting committed and potential locations for additional growth relatively nearby, to the east of Chichester. The Parish Council has engaged proactively with planning for the SDL, with the made Tangmere Neighbourhood Plan (2016) setting out a series of masterplanning principles for a 1,000 home scheme (the capacity of the SDL in adopted plan), before the Preferred Approach consultation document proposed increasing the capacity to 1,300 homes. The option of additional growth beyond 1,300 homes has not been considered at any point along the course of the plan-making / SA process to date.

With regards to the possibility of higher growth, considerations include:

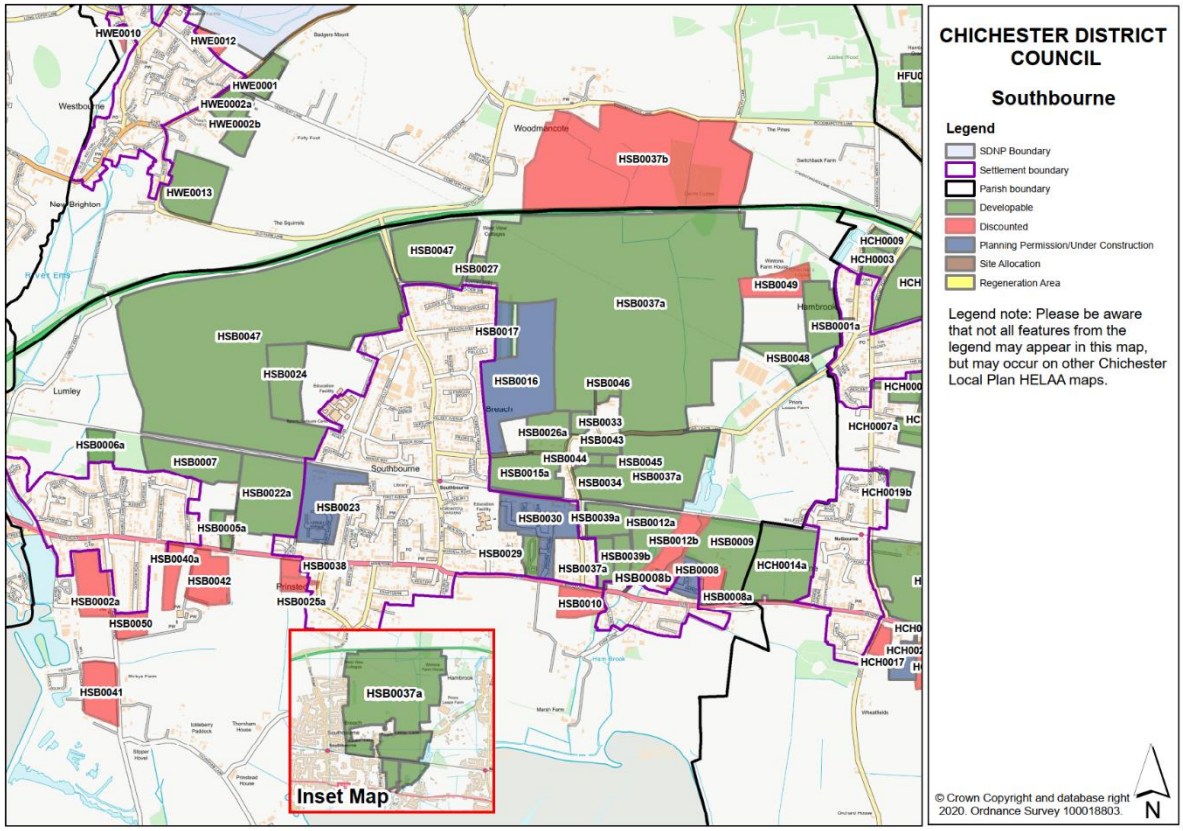
- Land is available to the south of the SDL (HTG0015; Land at Tangmere Airfield) that could feasibly form part of a southern extension. However, this would significantly impact the landscape gap to Oving, where there is the option of strategic growth to the north (i.e. in the direction of Tangmere), as discussed below.

  A more logical direction for expanding the SDL could potentially be to the west, in the direction of Chichester; however, there is no developable HELAA site here, and any further expansion would lessen the gap to Chichester and risk loss of grade 2 quality agricultural land (the land in question has been surveyed in detail).

  More generally, further expansion of the SDL would risk conflict with the agreed masterplan, including the key masterplanning principles, including the 'one village vision' discussed within the Design and Access Statement submitted as part of the current planning application. The current western boundary is a fairly strong hedgerow.
- The only other potential location for a strategic allocation is to the southeast of the village, where there are two adjacent HELAA sites that comprise the northern extent of the former Tangmere airfield, with the smaller of the two sites comprising hardstanding (the larger site is currently under arable production, but is shown as non-agricultural land by the nationally available agricultural land quality dataset). The option of a further strategic scheme here, in addition to the Tangmere SDL is not supported, for the reasons given above, plus this location is relatively poorly connected in transport terms and forms part of a designated Horticultural Development Area.
- The final HELAA site (HTG0005) is a smaller site (1.92 ha) that relates well to the existing village edge, but is better suited to employment land, forming part of an employment allocation in the adopted local plan. Specifically, the intention is for this land to deliver an extension to Chichester Business Park.

In **conclusion**, there is only **one scenario** for Tangmere, involving completions, commitments and windfall only.

Southbourne



There is *relatively* low committed growth here, in comparison to Tangmere. Specifically, commitments total 246 homes from four sites, although there have been notable recent completions, with modest expansions to the west (notably affecting the landscape gap to Emsworth), east and north (still under construction). A key committed site is a 199 home scheme that gained permission at appeal in March 2020 (ref. 18/03145/OUT).[29]

As such, there is a strategic argument for directing a good proportion of growth to Southbourne through the local plan, i.e. a good proportion of ~2,450 home target figure that is arrived at by deducting supply from completions (658 homes), commitments (5,476 homes), windfall (595 homes) and new supply from Chichester Parish (450 homes) from the 9,630 target figure for the southern plan area (535 dpa 'cap' x 18 year plan period). N.B. there is also a need to consider the possibility of a supply buffer, such that the 9,630 home figure is perhaps a minimum.

As well as being a settlement hub on the east-west corridor, Southbourne benefits from a rail station and relative proximity to Portsmouth and Southampton. This is an important broad distribution consideration, as discussed.

The area is also subject to relatively low environmental constraint in some respects (focusing on land to the north of the AONB, and given an understanding of limited AONB setting concerns). In particular, there is low historic environment constraint, and limited priority habitat (Brent Geese foraging/roosting is a constraint to the west).

However, on the other hand, there is a need to demonstrate nutrient neutrality, and Southbourne drains to Thornham wastewater treatment works, which is heavily constrained, with the SoCG between CDC, the Environment Agency and Southern Water (2021; also note there was a 2022 capacity update) explaining:

"… whilst no definite showstoppers to treating wastewater from new homes across the plan period have been established, it is clear that providing significant additional capacity at Thornham WWTW is dependent upon significant infrastructure improvements… Therefore, local plan development in this area will need to be phased…"

Also, the nationally available 'provisional' agricultural land quality dataset shows extensive grade 1 quality land in the vicinity of Southbourne, although very little land has been surveyed in detail.

The Preferred Approach consultation document (2018) assigned a 1,250 home parish allocation to Southbourne, and this same figure was the assumption at the subsequent 'Revised Distribution' stage and also in January 2022, when there was a further targeted informal consultation.

Following the Preferred Approach consultation, the Parish Council prepared and submitted a neighbourhood plan, proposing allocation of a 1,250 home scheme to the east of the village (1,050 homes plus site HSB0016, which is committed for 199 homes), after having gone through a process to consider the alternative of grow to the west.

However, the neighbourhood plan Examiner subsequently found the plan to be premature, due to uncertainties around the emerging Chichester local plan, and the neighbourhood plan was withdrawn. N.B. the examination did not progress as far as to consider substantive matters regarding the proposed growth scale or location.

At the current time, it remains appropriate to direct a significant amount of growth to Southbourne. However, rather than a parish allocation, there is a desire to achieve greater delivery certainty by allocating a broad location for development through the local plan, in accordance with NPPF paragraph 68.

There is feasibly the alternative of a detailed local plan allocation. However, there would be a need to go through a site selection process that would risk delaying the plan (recalling that a decision to withdraw the plan was made in April 2022). Also, a detailed allocation is not necessary, because any scheme would need to come forward later in the plan period, following upgrades to Thornham wastewater treatment works.

With regards to the extent of the broad location, this matter is considered fairly uncontentious (for the current purposes of arriving at reasonable growth scenarios). Specifically, the proposal is to identify an area of search that includes developable HELAA sites that relate relatively well to the Southbourne settlement edge and avoid the Strategic Wildlife Corridor associated with the Ham Brook, also naturally mindful of the need to maintain a landscape gap to settlements within Chidham and Hambrook Parish, to the east. It is important to note that the total theoretical capacity of developable HELAA sites within this broad area is far in excess of the number of homes that would need delivered under any reasonably foreseeable scenario.

The broad location provides flexibility to identify a detailed allocation either through a Site Allocations Plan or, should the Parish Council wish to do so, a revised Southbourne Parish Neighbourhood Plan. Site selection considerations will likely include: transport and access (including mindful of links to the train station and by car to Portsmouth); accessibility and community infrastructure (mindful of the secondary school, recreation ground and employment area at the western edge of the village); heritage (e.g. there is a historic rural lane to the east,

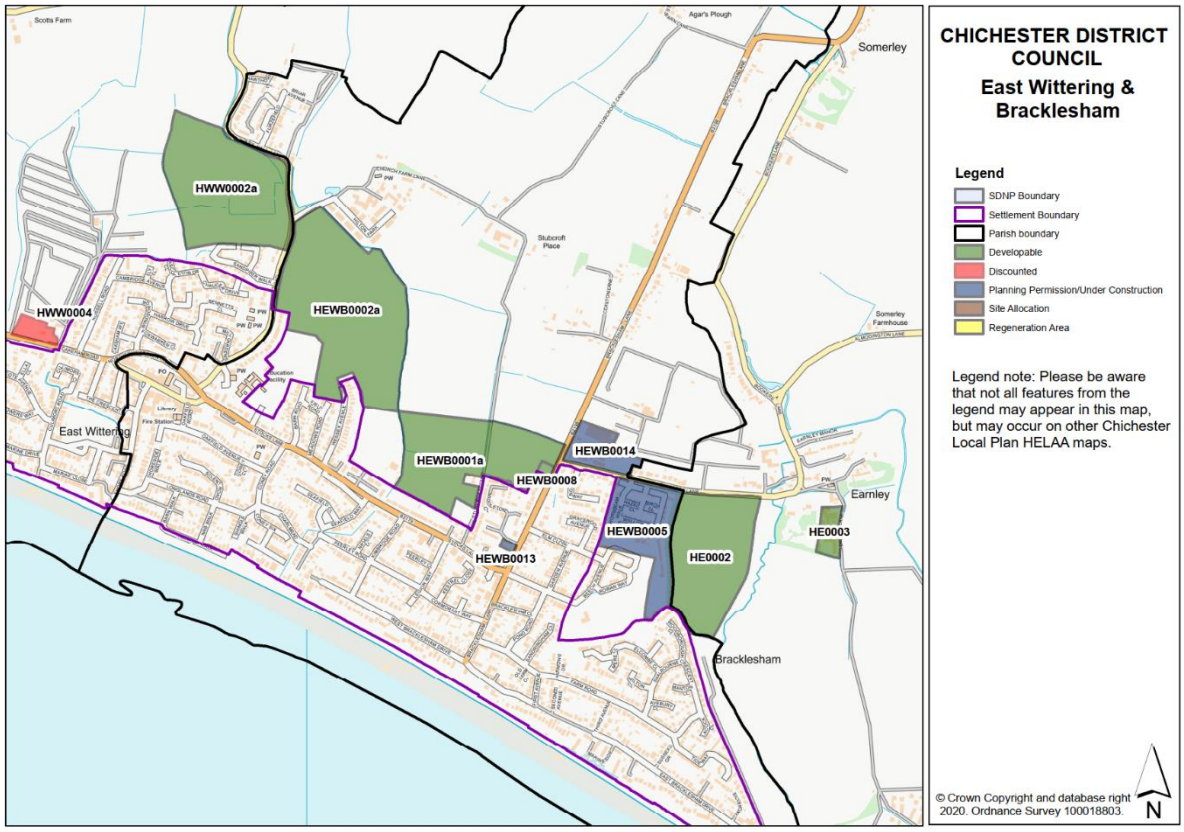
[29] A draft neighbourhood plan was published in 2022 explaining: *"The new NP recognises the permissions that have been granted at Breach Avenue, Cooks lane and Wayside since the original NP was made [in 2015]… It does not allocate any… new sites because Southbourne is already accommodating over 250 dwellings more than the 350 allocated in the LP 2015."*

associated with two listed buildings), topography and landscape (including any visual links to the SDNP and/or the AONB) and the potential to secure a strategic scheme that delivers more than just new market homes, and potentially significant 'planning gain' for the local community.

With regards to the number of homes that should be supported, there is logic to further exploring the scale of growth that was previously considered through the now withdrawn Southbourne NP, and it is not clear that there is an argument for considering lower growth. Additionally, there is a clear argument for exploring the possibility of higher growth, to ensure a suitably comprehensive scheme, with a high level of 'planning gain'.

In **conclusion**, there are **two scenarios** for Southbourne Parish, namely completions, commitments and windfall plus either: **1)** a broad location for 1,050 homes; or **2)** a broad location for ~1,500 homes.

East Wittering and Bracklesham Parish



The final two settlement hubs – East Wittering and Selsey – are both located at the southern extent of the Manhood Peninsula, such that they are relatively poorly connected in transport terms (see Section 5.2), which serves as a broad strategic argument against higher growth, relative to Chichester Parish, Tangmere and Southbourne.

The proposal in 2018 was to assign East Wittering a parish allocation for 350 homes. However, this approach was revised at subsequent stages, and a significant number of homes subsequently gained planning permission at appeal. The latest situation is that there is committed growth of 256 homes across five sites (across three parishes, but focused on East Wittering), plus there are two pending planning applications for a total of ~340 homes, which could conceivably gain permission at appeal, even if the Council refuses permission. Furthermore, one of the sites currently the subject of a pending planning application is associated with a potential expansion (discussed below).

There is a strong argument to suggest that committed growth is sufficient, given that:

- committed growth is close to - and may exceed - the level of growth directed to East Wittering at the Preferred Approach (PA) stage, when the proposal was for a higher growth strategy across the southern plan area;
- there is now understanding that Stockbridge and Whyke junctions are unlikely to be upgraded in the plan period, and there has generally been an evidenced shift towards an increased focus on the east-west corridor;
- there are now generally higher concerns regarding flood risk, with a need to be mindful of expanded flood risk zones under climate change scenarios. The most recent Strategic Flood Risk Assessment (SFRA) shows extensive tidal flood risk across East Wittering under climate change scenarios.

However, on the other hand, there is a need to ensure a level of growth commensurate with East Wittering's position in the settlement hierarchy. It is recognised that Selsey and East Wittering are associated with 'local centres' in the retail hierarchy, whilst the other two settlement hubs – Tangmere and Southbourne – have 'village centres'.

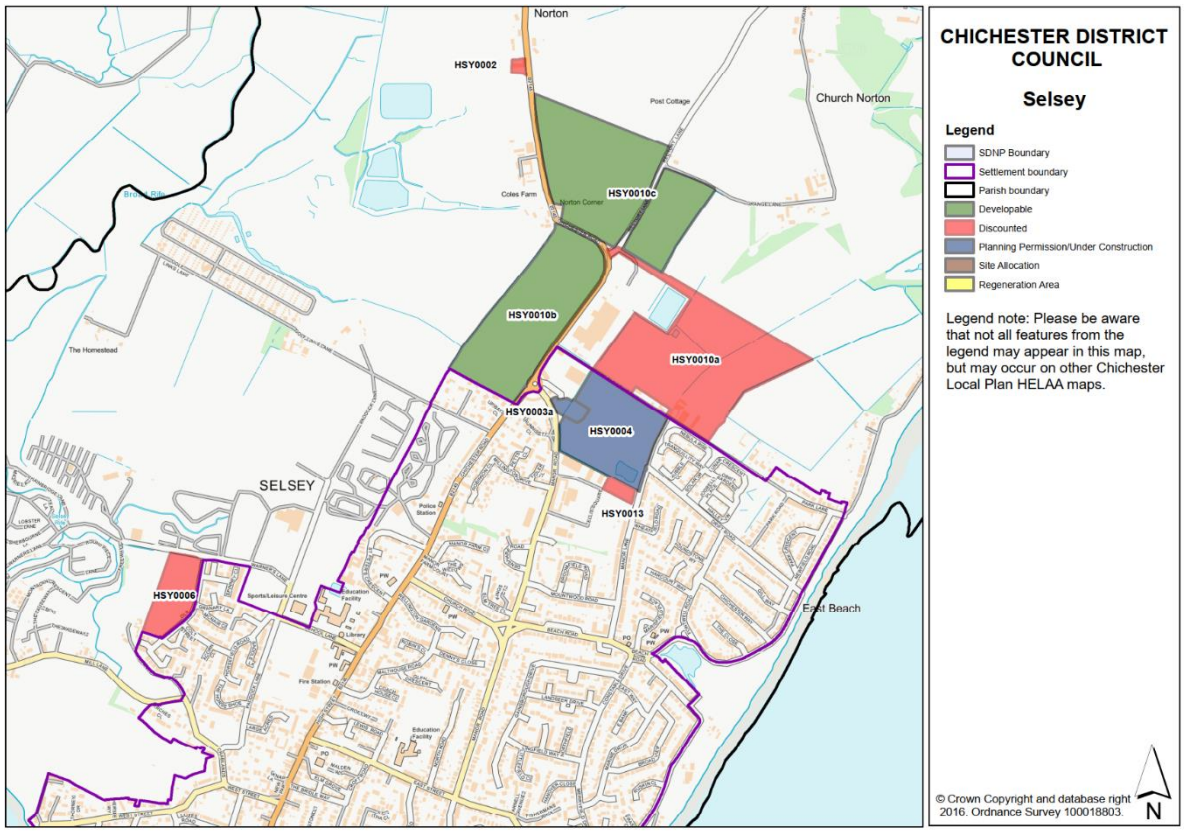
With regards to the four developable HELAA sites directly abutting East Wittering, one is now committed and another is part committed for 70 homes, with the remaining part of the site considered to perform relatively poorly, nothing that it comprises a landscape parcel judged to have 'low' capacity by the Landscape Capacity Study (2019).

Focusing on the remaining two sites, these are both the subject of pending planning applications, namely:

- Land at Bracklesham Lane (south) (HEWB0001a) – the HELAA identifies capacity for 200 – 300 homes, but the current planning application is for 62 homes on part of the site, with the Design and Access Statement explaining that the remainder of the site could be developed in due course.
- Land at Bracklesham Lane (north) (HEWB0002a) – the HELAA identifies capacity for 300 homes, but the planning application is for 280 homes, along with a community building, office space and sheltered housing.

In **conclusion**, in light of the latest flood risk evidence, there is only **one scenario** for East Wittering and Bracklesham Parish, involving completions, commitments and windfall only.

Selsey Parish



The constraints to growth discussed above in respect of East Wittering also apply to Selsey, although: the flood risk constraint is notably different, in that the risk relates to flooding of the roads into / out of Selsey more so than the site options reasonably in contention for allocation; and the transport / traffic constraint is *potentially* somewhat lower, given some potential to make use of the Bognor Road A27 junction, or, at least, avoid Stockbridge junction.

With regards to commitments, the situation is similar to East Wittering, with 237 homes set to come forward at committed sites. Of these, 231 homes are set to come forward at two adjacent sites to the north of the village, which will serve to extend a recently completed scheme.

However, unlike East Wittering, the situation in respect of commitments is not significantly changed since 2018, when the Preferred Approaches consultation document proposed a 250 home allocation (North of Park Farm).

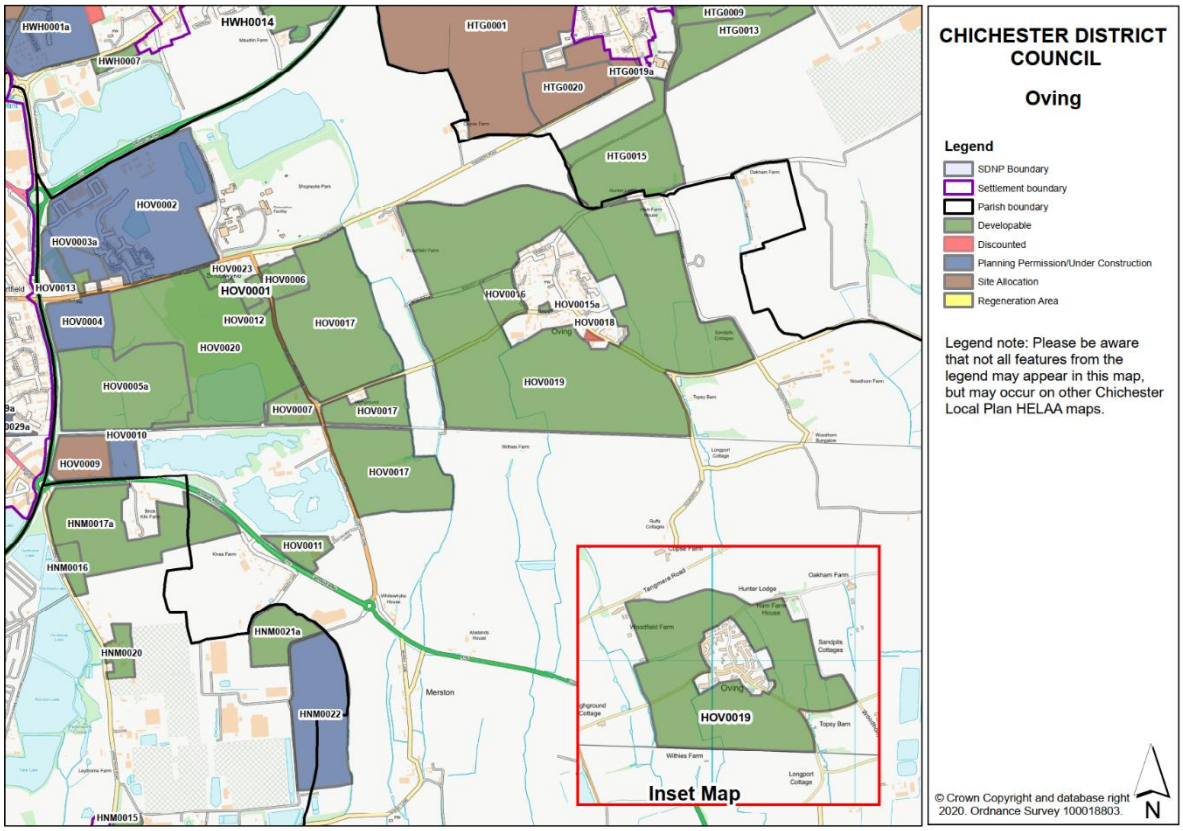
This allocation would have comprised a further northwards extension of the aforementioned committed / recently completed northern extension to the village. However, the site in question was discounted as unacceptable through the HELAA in 2021, on account of flood risk.

There are only two developable HELAA sites at Selsey, of which one is preferable, on account of its relationship to the existing / committed settlement edge. This is Land West of Park Farm, which has a capacity of 264 homes. It is less constrained in flood risk terms, relative to North of Park Farm, reflecting its position adjacent to the Chichester Road, which is associated with slightly raised ground.

In this light, close consideration was given to the option of allocating Land West of Park Farm (HSY0010b) over the course of 2022. However, the 'reasonableness' of considering this site for allocation was always considered to be marginal, and then in late 2022, in light of the Level 2 SFRA (December 2022), it was ultimately determined there is no reasonable growth scenario involving allocation of this site (the situation could be revisited in the future, in light of any improvements to flood defences or road infrastructure, noting that the SFRA explains *"Chichester District Council plans to promote the… Selsey Coastal Defence & Flood Scheme"*). The SFRA Level 2 explains: "*Selsey is considered to be a dry island in the event tidal flooding. Therefore, whilst the risk of flooding to the site itself is low, consideration must be given to the ability of emergency services to reach the site, or for residents to seek help should flooding occur in line with paragraph 047 of the PPG Flood Risk and Coastal Change... access to and from the site is an important consideration as this is severely limited during climate change scenarios"*. Under a worst case scenario, the flood depth could be as much as 2.6m for a 4-6 hour period, and the flow of water could damage the road.

In **conclusion**, in light of the latest flood risk evidence, there is only **one scenario** for Selsey Parish, involving completions, commitments and windfall only.

Oving Parish



Having now considered the five higher order settlements, the next logical port of call is Oving Parish, to the east of Chichester, as this is the sequentially preferable location for an urban extension of Chichester into another parish. This reflects an understanding that the following Chichester urban extension options are unreasonable:

- Northwest – the option of a further expansion of the West Chichester SDL, involving developable HELAA sites within Chichester Parish, has already been discussed above, and ruled out as unreasonable.
- Southwest – the Preferred Approach consultation document proposed a large employment-led mixed use allocation (AL6), to include a new 'Stockbridge link road' between the A286 and the Fishbourne roundabout (discussed in Section 5.2). However, the link road is now known to be undeliverable. Also, there is now known to be "no environmental capacity" at Apuldram wastewater treatment works, according to the 2021 SOGC

between CDC, the Environment Agency and Southern Water.[30] Furthermore, this sector of land is subject wider constraint, perhaps most notably in terms of flood risk (the River Lavant passes through the site), but also in terms of biodiversity (nearby Chichester Harbour SPA/SAC and priority habitat along the River Lavant), landscape (nearby Chichester Harbour AONB, a public footpath along the River Lavant) and also (to a lesser extent) the historic environment (two grade 1 listed buildings at nearby Apuldram alongside with four grade 2).

A housing only scheme at the eastern extent of the site, in the form of a western extension to Stockbridge, could be an option, noting that this land here is relatively unconstrained (including in terms of agricultural land quality, according to the nationally available provisional dataset), but it is not clear that the land would be made available for a reduced scheme of this nature, and Stockbridge roundabout and wastewater constraints would remain. Stockbridge is service village, and benefits from good proximity to Chichester rail station and the city centre, but the A27 and employment land are a barrier to movement, and there is no local primary school.

- Southeast – there is a developable HELAA site at the junction of the A27 and the A259 Bognor Road; however, the HELAA records this land as suitable only for employment. The current proposal is to allocate this site for employment (see discussion in Appendix II).

A new urban extension of Chichester into Oving Parish would comprise land bounded: to the west by the A27; to the north by Shopwhyke Road where the allocation at 'Land at Shopwyke' lies to the north, which is currently under construction for 585 homes; to the east by an area that forms part of a Strategic Wildlife Corridor and to the south by the railway line. The site is not as well located in transport terms as the committed Land and Shopwyke site, given its position between the main road corridors (along which there are high quality cycle lanes), but A27-bound traffic would make use of A27 / B2144 (Oving Rd) junction, which is understood to be one of the less problematic A27 junctions, and the site is thought likely to benefit from reasonably good connectivity in terms of walking and cycling, with the Chichester Local Walking and Cycling Implementation Plan (LCWIP) showing a route along the B2144. Also, the site has relatively high landscape capacity, according to the Landscape Capacity Study (2019).

Furthermore, as a strategic site there will be the potential to deliver a mix of uses onsite, and a range of infrastructure alongside housing. There have been ongoing discussions and work to consider the appropriate extent and capacity of the site, with 600 homes proposed at the Preferred Approaches stage, followed by consideration of up to 1,000 as part of the subsequent investigative work. However, at the current time, there is confidence in an assumed capacity of ~700 homes, to balance the need to avoid impacting the Strategic Wildlife Corridor with a desire to ensure a suitably comprehensive masterplanned scheme with economies of scale.

Finally, there is a need to note that around 2/3 of the site comprises former landfill. On the one hand this creates a challenge, as there is a need to ensure that the land is appropriately remediated (which could lead to a cost and, in turn, an argument for supporting a larger or higher density scheme). However, on the other hand, there are arguments for making best use of degraded land, in order to minimise pressure on high quality agricultural land.

Significant completions and commitments plus a new strategic allocation for ~700 (680) homes is sufficient for Oving Parish, noting that Oving is a historic village that has expanded little itself beyond its designated conservation area and remains associated with a strong rural agricultural setting, in contrast to nearby Tangmere and Boxgrove. Landscape capacity is lower around Oving, in comparison to land directly to the east of Chichester / west of the Strategic Wildlife Corridor, and there is a strategic argument for maintaining the rural character of this broad area between the strategic road corridors, and perhaps increasing accessibility to this area (there are limited footpaths / bridleways). Also, the nationally available provisional agricultural land quality dataset shows extensive grade 1 quality agricultural land in the vicinity of Oving, and this has been confirmed by field surveys (the 'post 1988 criteria' dataset) in some places (although in other places detailed field surveys have found the quality to be grade 3b).

In turn, it is reasonable to rule out the remaining developable HELAA sites in Oving Parish, recalling the strategic context, in respect of the 535 dpa cap on growth and alternative locations for growth. It is noted that there is no primary school at Oving, and that the scale of the 'Land surrounding Oving' developable HELAA site is certainly sufficient to deliver one (1,440 homes), but this scale of growth is unreasonable in the context of the current plan.

In **conclusion**, there is only **one scenario** for Oving Parish, involving completions, commitments and windfall plus a strategic allocation for ~700 homes.

Overview of service villages

The discussion above has served to identify 'new' supply of ~2,200 homes, which combined with completions, commitments and windfall (6,729 homes) brings the total supply identified, on the basis of the discussion so far, to ~8,930 homes). This is only ~700 homes short of the 9,630 homes target figure (535 dpa x 18 year plan period).

[30] The SOGC discusses the potential for the new Chichester to Tangmere pipeline to transfer wastewater from Chichester to Tangmere treatment works, but this runs north of Chichester, such that it could potentially be a challenge to connect to.

Furthermore, under a scenario whereby higher growth is supported at Southbourne, the residual target figure – to be met through new supply at service villages - would reduce further, to ~250 homes.

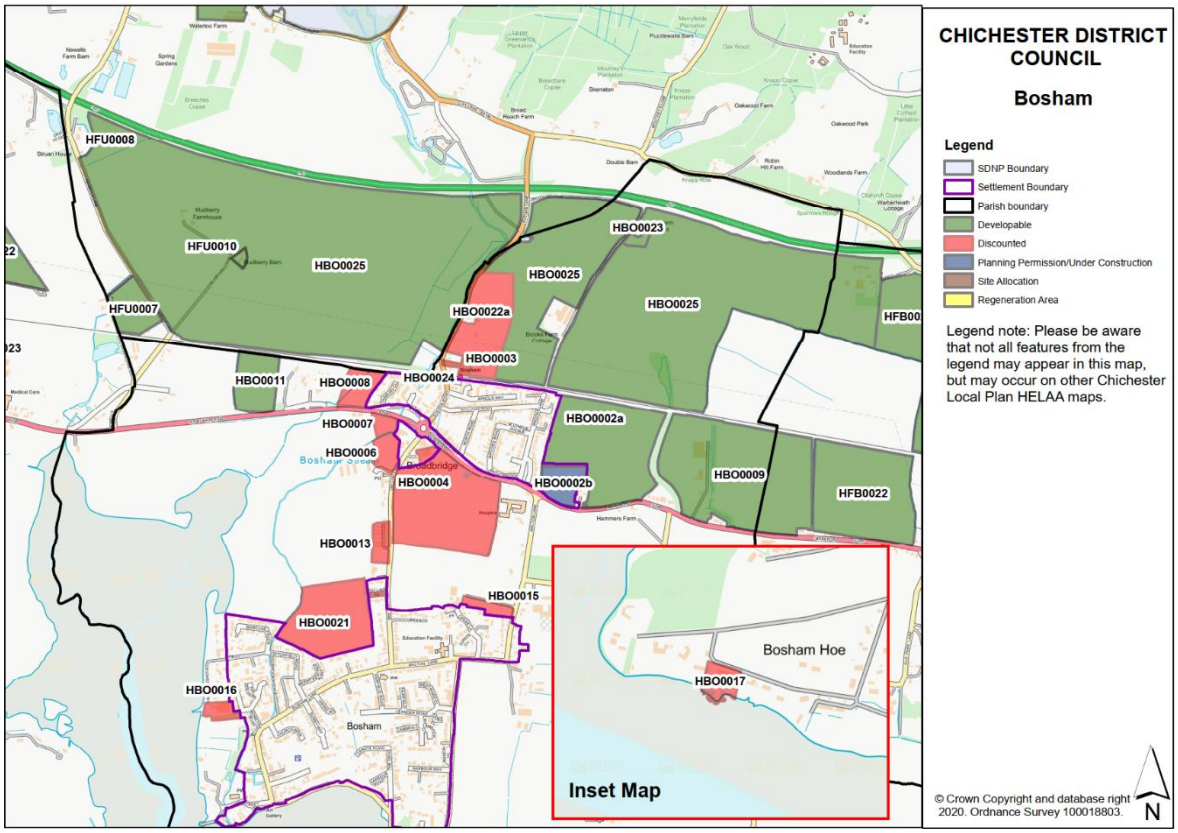
In seeking to identify site and/or parish allocations to meet the residual target figure, attention focuses on the better connected service villages not subject to headline constraints, namely:

- Hambrook / Nutbourne;
- Fishbourne;
- Westhampnett; and
- Bosham / Broadbridge.

There are broad strategic arguments for and against growth at each of the four settlements. Therefore, as a logical starting point, it is reasonable to consider the possibility of distributing growth across these four villages, e.g. delivering in the region of 150 to 200 homes each.

The four parishes are considered below in alphabetical order.

Bosham Parish



As discussed, attention focuses on Broadbridge, which is located outside of the AONB and benefits from a train station. Other considerations include: transport (growth to the west of Chichester is broadly supported, but all Chichester-bound traffic would pass through the Fishbourne roundabout); landscape (all land in question has medium/low capacity, such that it is relatively constrained, in the context of most locations under consideration for allocation); and wastewater (Bosham treatment works is understood to be *relatively* unconstrained).

A 250 home allocation (Highgrove Farm) has been proposed since the Preferred Approach stage 2018, such that it benefits from having been consulted-on quite extensively (at least with the key stakeholder organisations, importantly including the Environment Agency and Southern Water in respect of wastewater).

This would involve an extension to a committed site for 50 homes, which gained permission in 2019 (ref. 17/03148/FUL) following an allocation in the Site Allocation Development Plan Document 2014 – 2029 (2019).

There is currently a pending planning application for 300 homes across the entire site (i.e. sites 2a and 2b), and the proposed scheme would notably deliver a community hall, allotments and a significant landscape buffer to the east, such that the scheme might serve to ensure a long term defensible eastern boundary to Broadbridge.

The site, taken as a whole, is clearly subject to landscape constraint, but the committed site (at the southwest extent of the wider site, i.e. adjacent to the AONB) potentially serves to reduce concerns somewhat. There is good

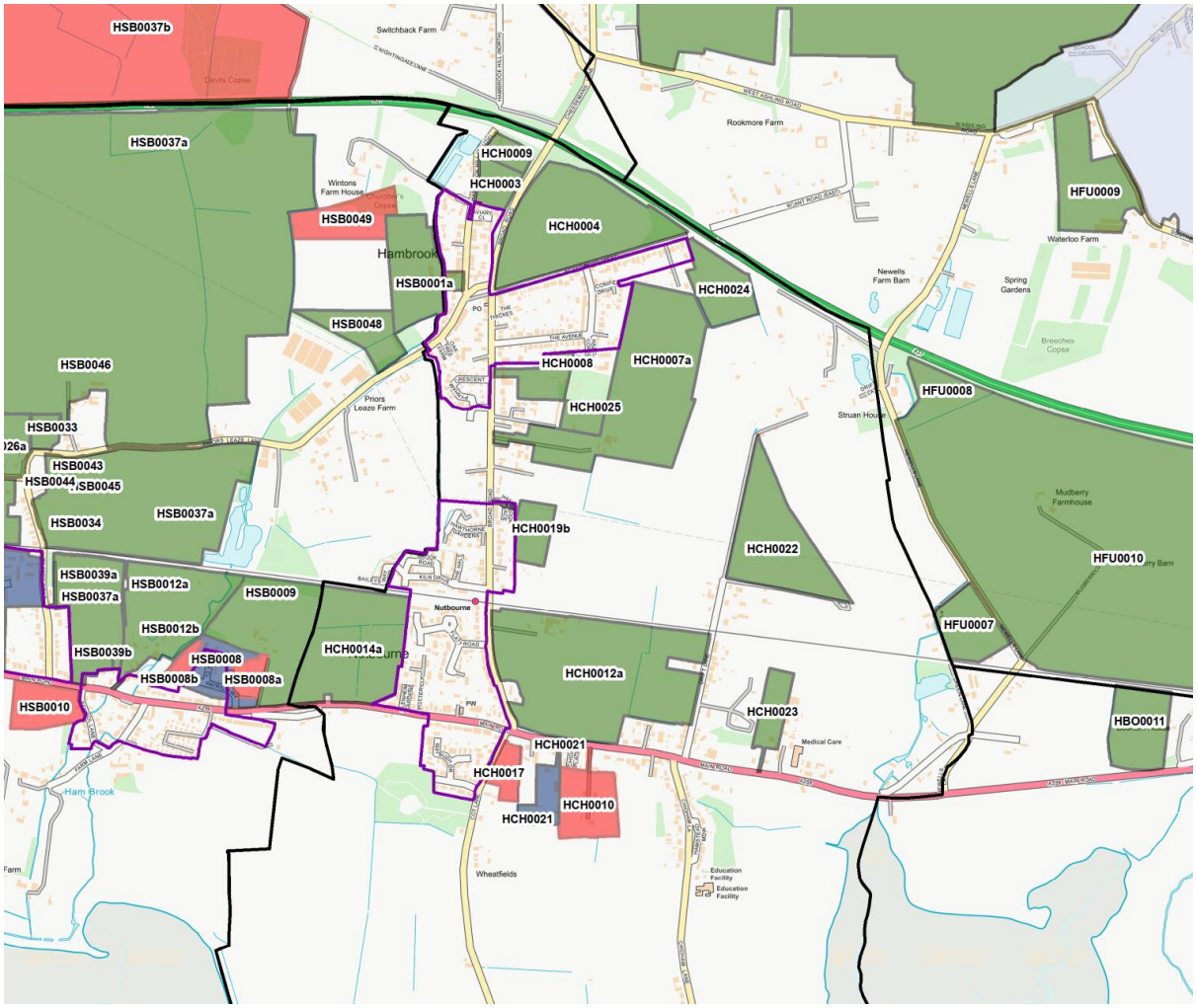
proximity to the train station, and also to the local primary school at Bosham, and there would be direct access onto the A259. Also, there are clear benefits associated with a larger comprehensive scheme in place of the smaller committed scheme, which would lead to a clear risk of further piecemeal growth in the future.

There is feasibly the alternative of directing growth to the north of the railway line, where a significant amount of land is available and identified as developable by the HELAA. In particular, land is available directly to the north of the village, between Ratham Lane and Brooks Lane. However, not all land is available, and the available land is across two sites, suggesting land in different ownership, also: there could well be a road infrastructure constraint, noting the narrow nature of the junction between the B2146 and the A259; land here is located on the opposite side of the A259 to Bosham (including the primary school); the nationally available provisional agricultural land quality dataset suggests extensive grade 1 quality land to the north of the railway, whilst the Highgrove Farm site has been surveyed in detail and been found to comprise grade 2 and grade 3a quality land (which is still 'best and most versatile'); and there is a more general argument for ensuring that any growth to the north of the railway line is suitably comprehensive, involving significantly more than 200 homes, e.g. feasibly involving a new A27 junction. There would also be a need to consider the SDNP constraint, with the Landscape Capacity Study (2019) notably identifying land to the north of the railway line as having 'low / moderate' capacity (as per land to the south).

There is also feasibly the alternative of allocating both sites, leading to growth at Broadbridge in the region of perhaps 500 homes. This could feasibly assist with infrastructure delivery, but it is not clear that there are any major opportunities to be realised. One issue has been funding a replacement bridleway crossing over the railway line; however, latest understanding is that this issue has now been resolved.

In **conclusion**, there is only **one scenario** for Bosham Parish, involving completions, commitments and windfall plus an allocation for 250 homes.

Chidham and Hambrook Parish



The parish comprises three distinct settlement areas, most notably Chidham, Hambrook and Nutbourne East, with Chidham within the AONB and so not considered further. There is a case for suggesting Nutbourne East as broadly the most suitable location for growth, given proximity to the rail station and direct access to the A259. It is also noted that the local primary school is located between Nutbourne east and Chidham.

The parish has a made neighbourhood plan, and the intention since the Preferred Approach stage (2018) has been that further growth would be delivered through a neighbourhood plan review. The parish consulted on an early 'strategy' document in early 2022, which presented important analysis of potential growth locations (and envisaged making provision for 400 homes).

The Preferred Approach consultation document proposed a 500 home parish allocation, and emphasised the need for "a high quality development to be masterplanned" so as to deliver a relocated primary school and *"improved community facilities including recreation, open space, allotments and a convenience store."*

Subsequently, the parish strategic location figure was reduced to 400 homes at the Revised Distribution stage, mindful of increased understanding of constraints to growth along the A259 corridor (see Section 5.2). Subsequently, a scheme for 118 homes, at the northern extent of the parish (i.e. north of Hambrook) gained permission at appeal in November 2021 (ref. 20/01826/FUL). Subsequently, the proposed strategic location figure was reduced to 300 homes at the time of the targeted consultation with stakeholder organisations in early 2022.

Furthermore, there is a need to be mindful of six significant pending planning applications, two of which are currently at the appeal stage. There is a high likelihood of one or more of these being ultimately allowed, given that the Council is currently unable to demonstrate a five year housing land supply, such that the NPPF's presumption in favour of sustainable development (paragraph 11) applies.

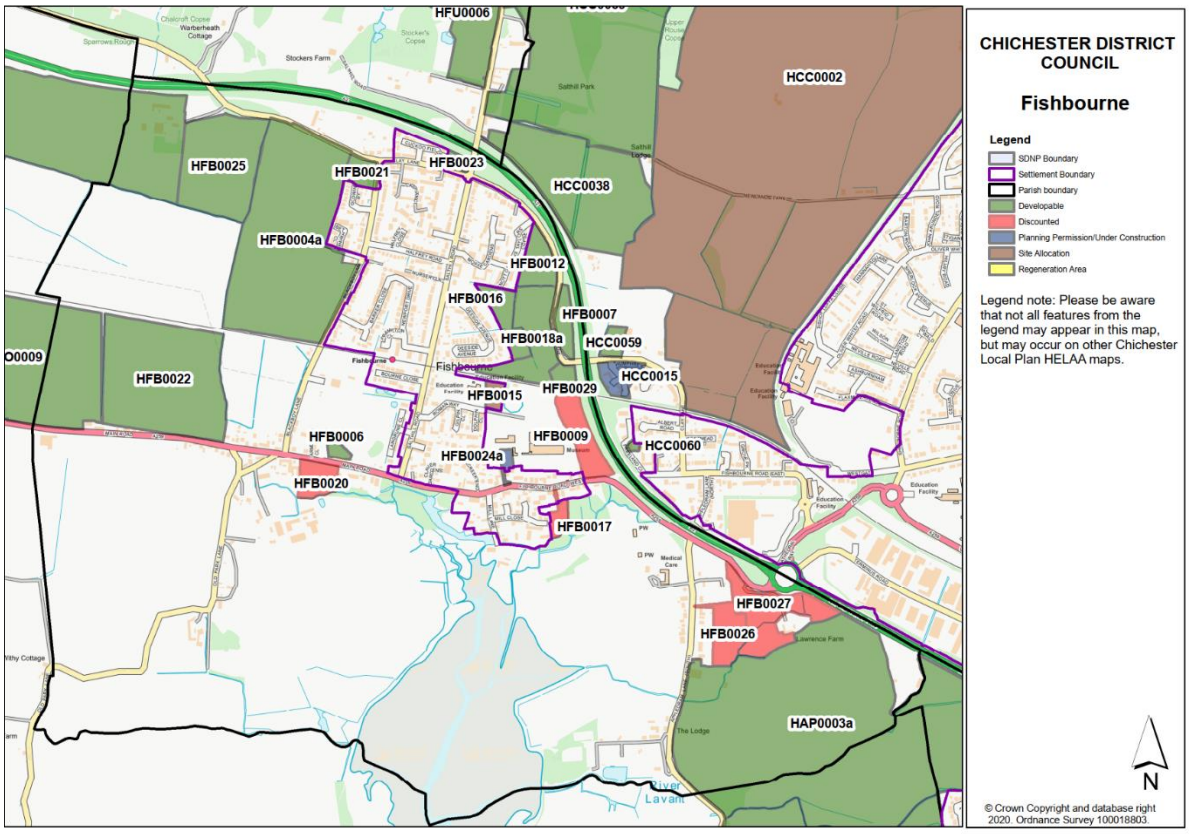
It could be the case that growth without a new primary school leads to significant issues, noting the following statement from the Chidham and Hambrook Neighbourhood Plan 'Strategy' consultation document:

"The emerging Chichester Local Plan (at Draft Policy AL10) requires that land be allocated for a two form primary school in the Parish. However, the Chichester Infrastructure Delivery Plan (IDP) notes that although additional school places may be required, the primary school does not have the capacity to expand, and that, instead, contributions should be made towards the building of a new primary school in Southbourne. Representations made by West Sussex County Council (as Local Education Authority) confirm that, combined, growth across Chidham & Hambrook, Bosham and Southbourne will require delivery of new primary school provision, though there is currently no certainty as to where this will be provided."

However, on the other hand, Nutbourne East benefits from a train station, and the Parish Council is well placed to allocate land for a significant number of homes, with the Strategy document from earlier in 2022 envisaging making provision for 400 homes. With regards to wastewater treatment, it is not entirely clear whether wastewater would be treated at Thornham or Bosham treatment works.

In **conclusion**, there is a need to progress two scenarios for further consideration, namely completions, commitments and windfall plus either: **1)** a 150 home parish allocation; or **2)** a 250 home parish allocation.

Fishbourne Parish



The village is notable as a historic settlement directly on the A259, as reflected in a designated conservation area and also a series of scheduled monuments, including Fishbourne Roman Palace. However, it is not necessarily the case that the historic environment constraint is a significant barrier to growth, in comparison to Broadbridge to the west, as growth at Broadbridge would likely lead to similar rates of traffic through the conservation area.

The village has expanded significantly to the north of the historic core, including significant 20th and 21st century expansion to the north of the railway line / station. There has been limited recent growth, and there is low committed growth, most notably from a Fishbourne Neighbourhood Plan allocation for 15 homes. It is also the case that there are no major current planning applications, in contrast to the settlements along the A259 corridor to the west.

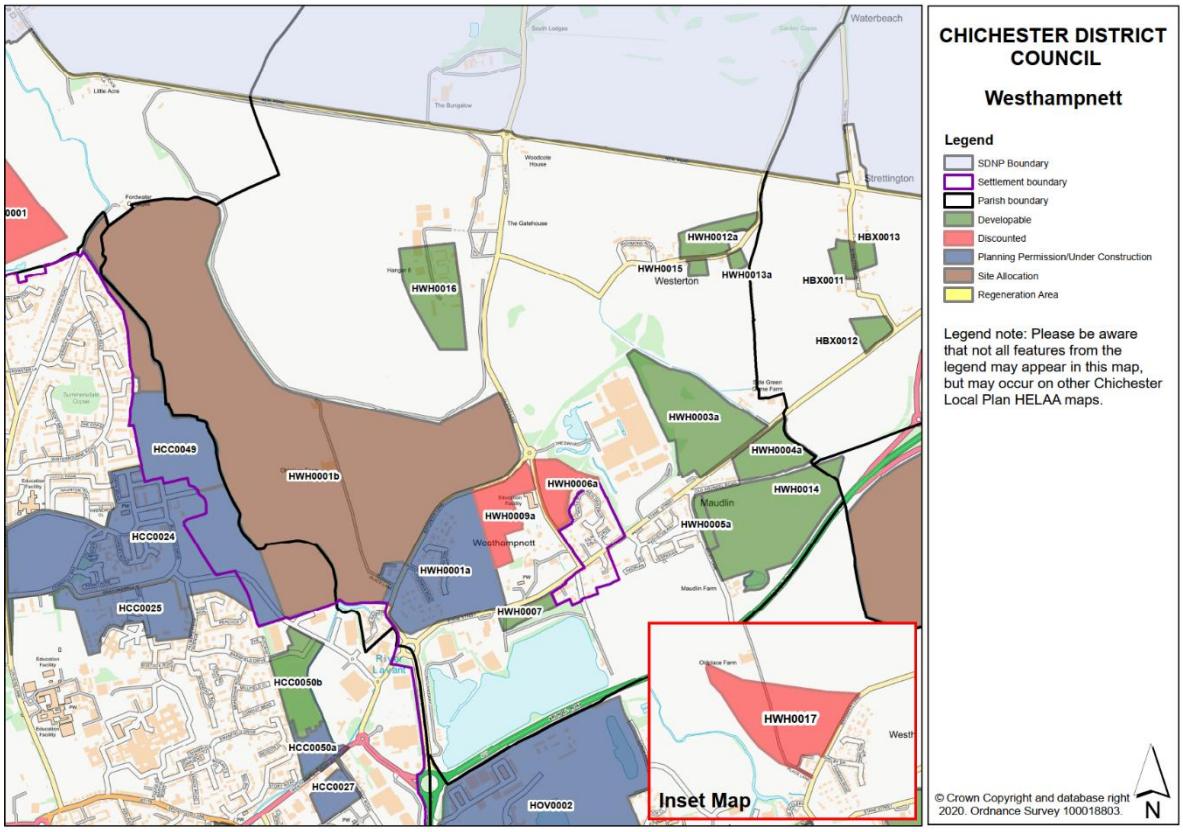
The Preferred Approach consultation document (2018) proposed a parish allocation of 250 homes. However, this was revised down to 40 at the Revised Distribution stage (2019), and then down to 30 in January 2022, particularly on the basis of the identified Strategic Wildlife Corridor that runs between the eastern edge of the village and the A27. This serves to rule out the option of significant growth across the cluster of HELAA sites east of the village.

There is also the option of growth to the west of the village, and attention focuses on HFB0004a, which relates quite well to the existing settlement edge. The landscape study identifies relatively good capacity here; however, there would be a risk of future creep / sprawl to the west. Transport connectivity is potentially also a constraint, noting the most direct route to the A259 involves a level crossing of the railway line; however, on the other hand, there is an alternative route to Chichester, via Clay Lane. The HELAA identifies capacity for 100 – 250 homes, and there was a recent EIA Screening Opinion requested for a 230 home scheme.

Overall, there is not support for allocation of HFB0004a, or a parish allocation with HFB0004a in mind. This reflects site-specific constraints, but also broad strategic constraints in respect of wastewater treatment (given an assumption that growth west of Fishbourne would be in addition to 300 homes at Highgrove Farm, Broadbridge, and given a risk of wastewater needing to be directed to Chichester (Apuldram) treatment works) and capacity at the Fishbourne Roundabout (mindful that a high proportion of car trips would be to Chichester, given proximity).

In **conclusion**, there is only **one scenario** for Fishbourne Parish, involving completions, commitments and windfall plus a parish allocation for ~50 homes (rounded to the nearest 50).

Westhampnett Parish



The Preferred Approach consultation document allocated 'Land at Westhampnett/North East Chichester' for 500 homes, with the site now under construction.

Subsequently, a new site was identified as available and its suitability tested. The initial proposal was for 300 homes, but latest understanding indicates capacity of 270 homes.

This site (HWH0014; Maudlin Farm) is judged to perform strongly in a number of respects, with good landscape capacity, good proximity to a primary school, good access to employment (Rolls Royce, the Goodwood Estate, Chichester Business Park and Chichester), a good cycle route into Chichester along the A285 and good access to the A27. Furthermore, as a location to the east of Chichester, there are no nutrient neutrality concerns.

However, on the other hand, it is recognised that Westhampnett is distant from a rail station, and that Portsmouth-bound trips will involve passing through all problematic A27 junctions. Furthermore, a 165 home scheme in the Parish recently gained permission at appeal, which serves as a reason for a more modest allocation at Westhampnett; however, on the other hand, the effect of the recently permitted scheme will be to increase the extent to which Westhampnett can be considered to represent the north-eastern extent of Chichester.

With regards to alternatives to HWH0014 (Maudlin Farm), attention focuses on a smaller site adjacent to the north (HWH0004a), which is likely to be preferable in transport connectivity / accessibility terms, as it is located directly on the A285. However, it is potentially less well contained in landscape terms than HWH0014.

There is also feasibly the potential for supporting a more modest scheme at HWH0014 (Maudlin Farm), noting the possibility of a degree of transport accessibility constraint (mindful of a cluster of three grade 2 listed buildings), and also with a view to securing a landscape buffer at the eastern edge of the site, to bound the eastwards expansion of Westhampnett, and also potentially with a view to targeted habitat creation, noting that the originally proposed Strategic Wildlife Corridor passed through this area, prior to being moved to the west following the technical consultation held in 2021. Also, the possibility of allocating both sites could be considered.

Finally, there is a need to note a large HELAA site to the north, which is suitable only for employment.

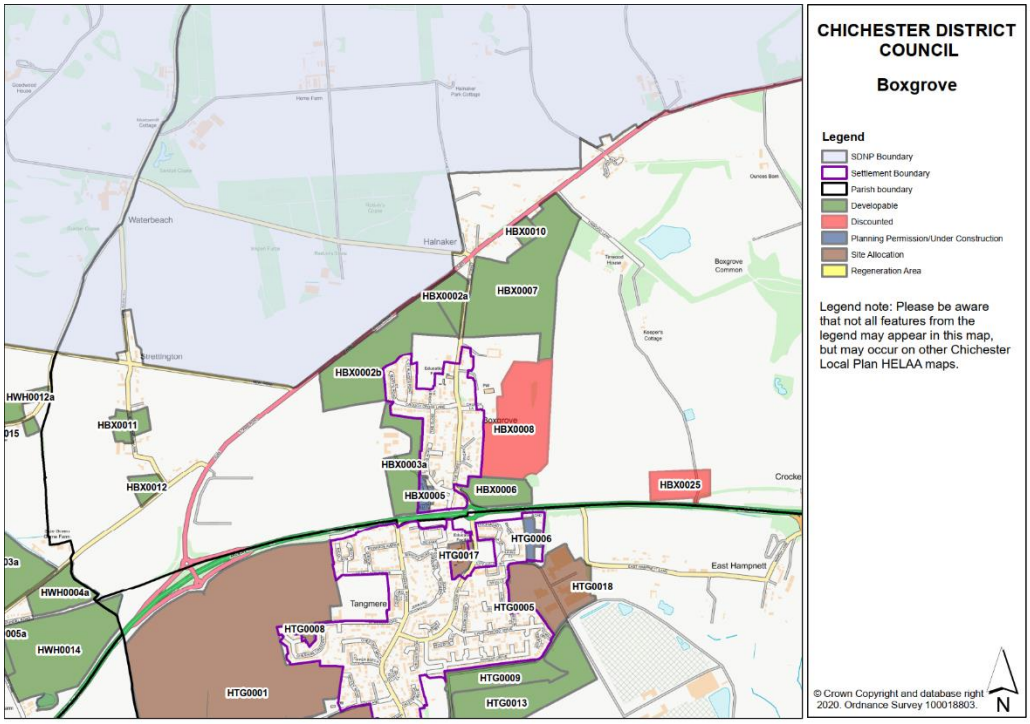
Overall, it is considered reasonable to progress alternative scenarios for further consideration, but a challenge arises in that numerous scenarios can be envisaged.

In **conclusion**, two scenarios are progressed for further consideration, namely **1)** completions, commitments and windfall only; and **2)** completions, commitments and windfall plus allocation of HWH0014 only for 270 homes.

Overview of the remaining parishes

The remaining parishes can be discussed more briefly, as there are fewer strategic arguments for growth.

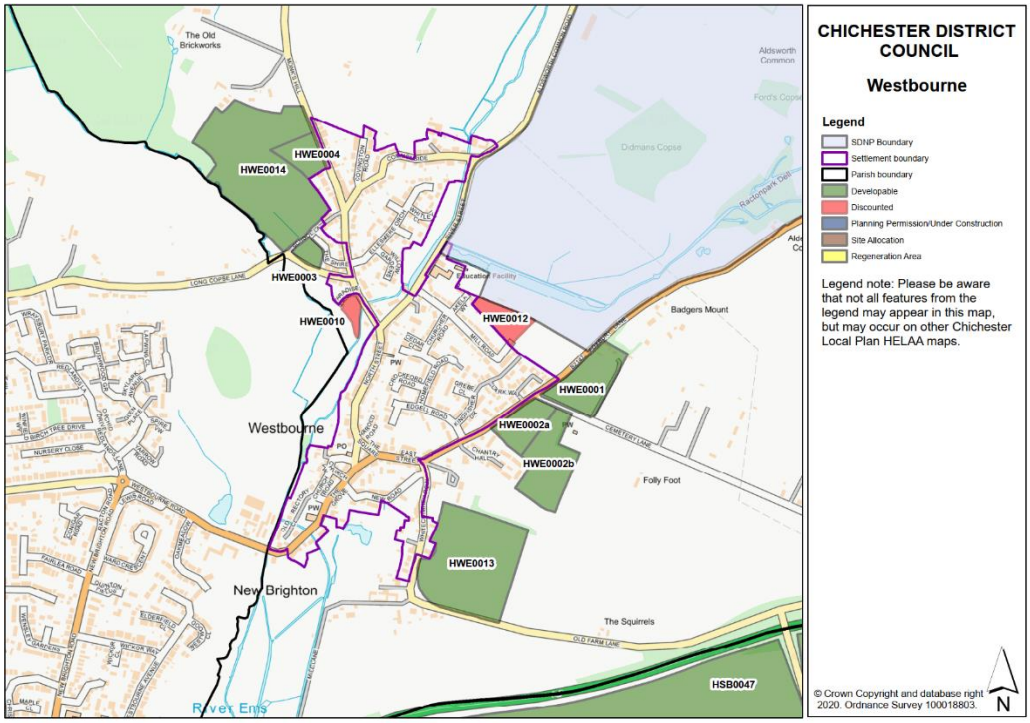
Boxgrove



Boxgrove is adjacent to Tangmere, but separated by the A27. There are broad strategic arguments in favour of directing a proportion of growth to this area, e.g. relating to nutrient neutrality and wastewater treatment. However, on the other hand, Boxgrove is distant from a train station, and there is an extensive conservation area, including the ruins of Boxgrove Priory alongside a grade 1 listed parish church. A modest parish allocation of 50 homes was consulted-upon in early 2022, and this approach is remains appropriate at the current time.

In **conclusion**, there is only **one scenario** for Boxgrove Parish, involving completions, commitments and windfall plus a parish allocation for ~50 homes.

Westbourne

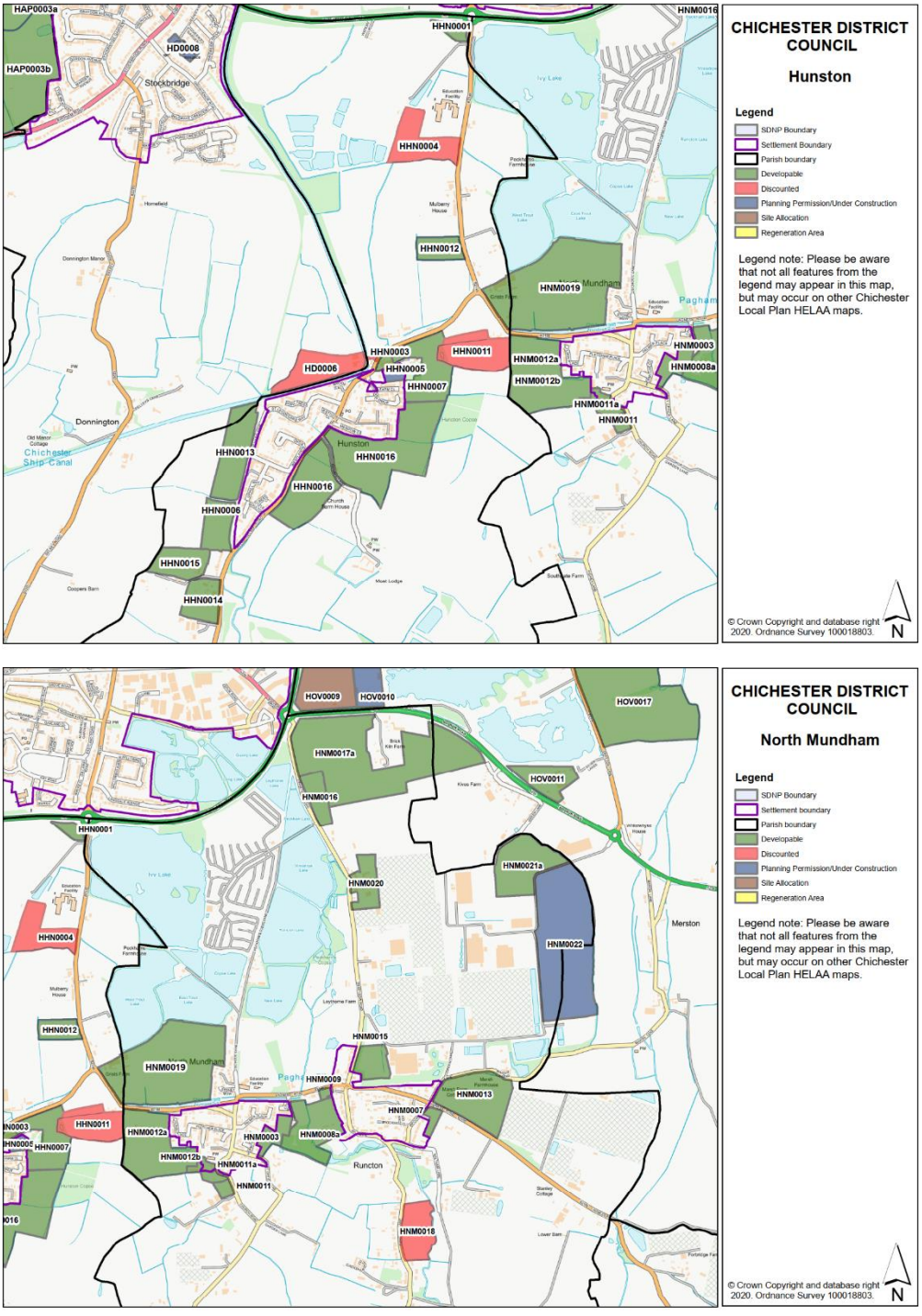


Westbourne is located at the western extent of the east-west corridor, and is poorly connected in some ways, in that it is not located on an A-road nor is there a railway station; however, Emsworth is in close proximity to the south. Westbourne is a historic village on the River Ems, with a conservation area containing a notably high density of listed buildings; also the SDNP is adjacent to the north.

The proposal at the Preferred Approach stage was for no growth (beyond completions and commitments), but the Revised Distribution the proposed 50 homes, with this revised down to 30 homes in January 2022. The made neighbourhood plan allocated two sites for a total of 12 homes, and so a target of 30 homes is considered appropriate for the neighbourhood plan review.

In **conclusion**, there is only **one scenario** for Westbourne Parish, involving completions, commitments and windfall plus a parish allocation for ~50 homes (rounded to the nearest 50)

Hunston and North Mundham

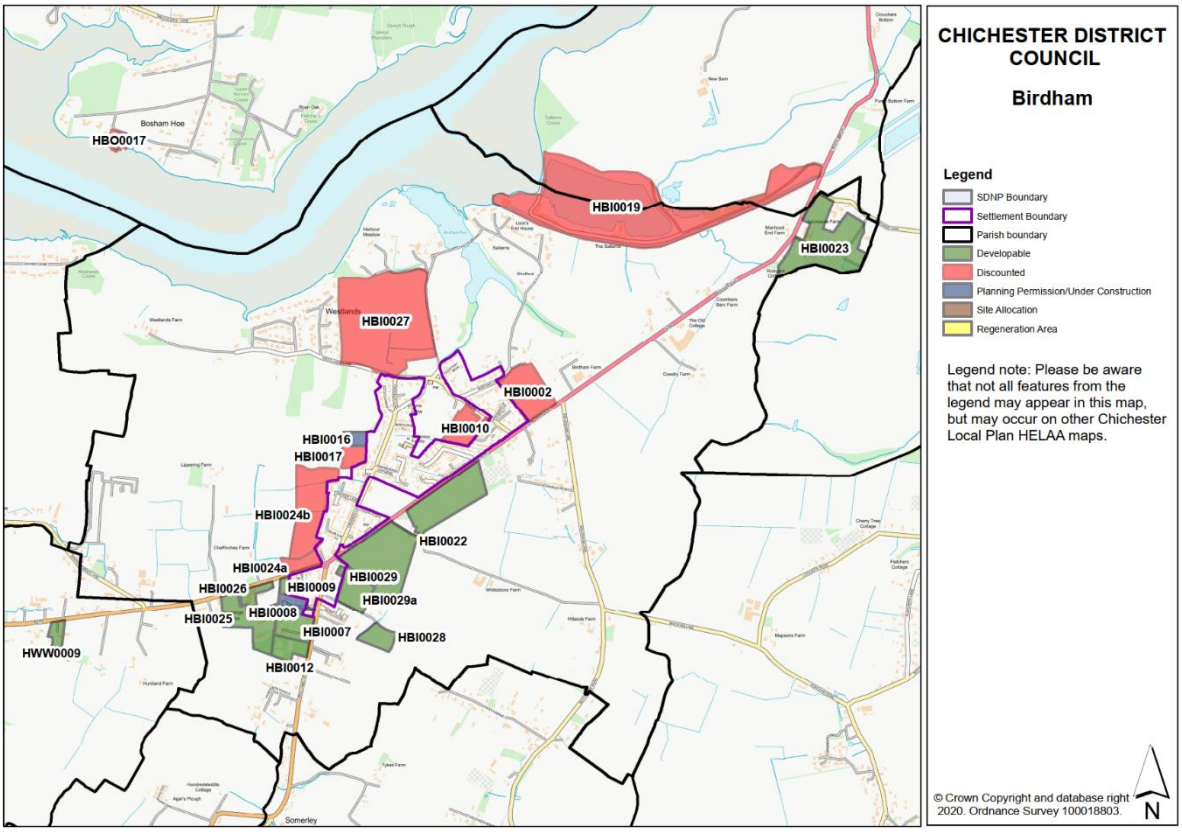


Hunston and North Mundham are closely linked parishes, to the south of Chichester / at the northern extent of the Manhood Peninsula, containing the service villages of Hunston and North Mundham / Runcton. The Preferred Approach consultation document suggested parish allocations for a total of 300 homes, with a particular focus on Hunston Parish. However, the approach to growth was revised downwards at subsequent stages, to the point where parish allocations for a total of 200 homes were proposed in January 2022.

West Sussex County Council (WSCC) then objected through the January 2022 consultation, on the basis that there is no primary school capacity, and no potential for capacity expansion. Subsequently, a site for 66 homes at North Mundham received a resolution to grant planning permission, subject to S106 (ref. 20/02989/FUL), potentially worsening the primary school capacity constraint. WSCC had originally objected to the application in December 2021, but then withdrew their objection in May 2022, on the basis of revised pupil projections, but it is fair to assume that a significant primary school constraint remains. There is also a need to consider relatively poor transport connectivity, and a need for car traffic to join or cross A27 junctions.

In **conclusion**, two scenarios are progressed for further consideration, namely **1)** completions, commitments and windfall only; and **2)** completions, commitments and windfall plus a parish allocation for 50 homes.

Birdham



Birdham is a service village located on the A286 between East Wittering and Chichester. The option of a significant parish allocation has been considered in the past; however, there is no greatly reduced argument for growth, given A27 junction capacity issues. The Landscape Capacity Study records a degree of capacity, but the developable HELAA sites mostly relate poorly to the main / historic settlement core. There is also a need to consider the landscape setting of the Somerley Conservation Area, to the south, and more generally avoid the risk of 'sprawl' across the flat landscape of the Manhood Peninsula.

In **conclusion**, two scenarios are progressed for further consideration, namely **1)** completions, commitments and windfall only; and **2)** completions, commitments and windfall plus a parish allocation for 50 homes.

Other parishes

These are either relatively poorly suited to growth or are set to see sufficient growth through completions / commitments; and/or have no uncommitted developable HELAA sites reasonably in contention for allocation (or it is the case that sites have already been discussed above).

Northeast plan area

Reaching a decision on reasonable growth scenarios for the northeast plan area and, in turn, a decision on a preferred approach to growth, is inherently challenging, in comparison to the southern plan area:

- The range of potential total growth quantum figures that warrant consideration is broad, from perhaps 200 homes new supply through the local plan (which, when combined with completions / commitments windfall totalling 315 homes, would mean that the area delivers around 4% of total growth over the plan period, in line with the proposal in 2018, at the time of the Preferred Approach consultation), to total new supply of ~1,800 homes, which is the level of growth assumed within the Water Neutrality Mitigation Strategy (see Section 5.2).
- There are relatively few clear cut strategic distribution factors, with all four/five settlements placed in the same tier of the settlement hierarchy, and the two other primary factors that apply in the southern plan area, namely nutrient neutrality and A27 capacity constraints, do not apply in the northeast plan area.

In this light, the following bullet points introduce some key issues (supplementing the discussion Section 5.2):

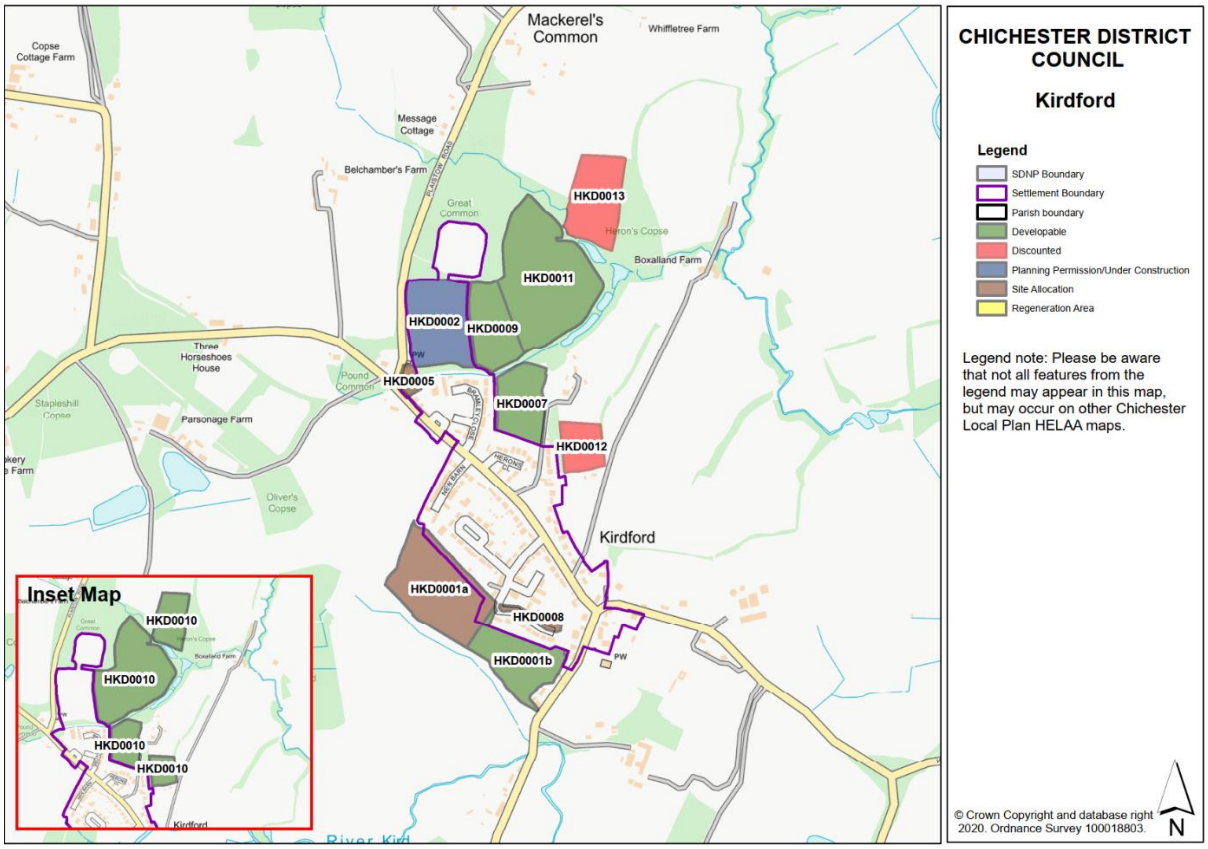
- Water neutrality – is a key issue, discussed in Section 5.2, but it is difficult to draw strong implications for reasonable growth scenarios, at least in terms of how growth might / should be distributed.
- Connectivity to higher order settlements – Loxwood and (in particular) Wisborough Green are best connected to both Billinghurst and Horsham, with the other villages more distant and connected by minor roads. This is simply in terms of road connectivity, but there is also a need to consider speed and frequency of bus services.
- Landscape – the Capacity Study (2019) is a key source of evidence, with a summary map available here.
- Waste water treatment – the waste water treatment works (WwTW) at Loxwood, which also serves Plaistow and Ifold, is currently operating above capacity, but there is understood to be potential for upgrades, such that this is an issue for the phasing of development more so than spatial strategy / site selection.
- Other environmental constraints – ancient woodland is widespread, including nationally designated SSSIs, and four of the five villages are associated with river corridors. Wisborough Green is closest to the SDNP and also the Mens Special Area of Conservation (SAC), which falls within the SDNP and is associated with a sensitive bat population known to forage across landscape scales. However, visual and footpath/bridleway links to the SDNP are limited. In contrast, the three northern villages are all associated with important footpath/bridleway routes associated with the River Arun corridor and/or linking to open access common land / woodlands.
- Other parish / village specific considerations:
  - Kirdford – there is a village shop, but no primary school, with the nearest at Plaistow, ~5km to the north. The village is located on minor roads, but the A272 at Wisborough Green is ~4.5km distant, which links to Billinghurst (~9km). Kirdford is a historic village associated with the River Kird, with a designated conservation area and grade 1 listed church, plus there is landscape and biodiversity constraint, including associated with ancient woodland and common land. The village has expanded modestly beyond the conservation area, and there is a need to consider further expansion, despite clear constraints.
  - Loxwood – is classed as a service village, as per Kirdford, but is considerably larger, with a primary school and a GP surgery (although the retail offer is similar to Kirdford). The village has expanded well-beyond the historic core, predominantly to the east, and there are *relatively* few environmental constraints to further expansion, plus Loxwood is also *relatively* well-connected in transport terms, being located on the B2133. Primary considerations include the river/canal corridor to the south and west, and rising land to a woodlands complex to the east. There is a clear linear historic core, associated with a historic crossing point over the River Arun / canal, but the village does not have a designated conservation area.
  - Plaistow & Ifold – two villages that function generally together, located to the west of Loxwood. Beginning with Plaistow, this is a historic village, associated with a raised wooded landscape, that has expanded very little beyond its conservation area. There is a primary school and a small village shop, but Plaistow is located on minor roads, with residents likely to look west to Haslemere (~12km) and, in the future, north to the new settlement at Dunsfold Aerodrome (~11.5 km). Rurality and constraints combine to suggest limited growth potential, but options must be closely examined nonetheless, given the strategic context. Also, the village is unique, amongst those discussed here, in that there is no defined settlement policy boundary.

    With regards to Ifold, this is a new area of settlement built within the grounds of the Ifold Estate, with plots first laid out in the 1930s. The settlement area formerly comprised an extensive woodland, and this is reflected in the character of the built-up area and its surrounds. The land rises to the west (towards Plaistow), but is otherwise notably flat, with limited landscape sensitivity, and there is little or no historic environment constraint. Ifold is the largest of the villages currently under consideration by settlement area, but has very few services and facilities (a village hall and a small shop; no recreation ground or playground).

- Wisborough Green – there is an extensive conservation area, including a prominent grade 1 listed church, and there is a need to consider ways in which the significance of the conservation area relates to the current village built form and links to the surrounding in the rural landscape. As discussed, there is also a need to consider links to the nearby Mens SAC, the SDNP and the Upper Arun SSSI. However, the village is *relatively* suited to growth in certain respects, in that it is well-connected by road to Billinghurst, and Horsham beyond, and there are a number of local services and facilities (although there is no GP surgery).

The four parishes in this area are discussed in alphabetical order.

Kirdford



There is significant committed growth at Kirdford, with HKD0002 having planning permission for 54 homes (ref. 19/00086/FUL); HKD0001a an allocation in the made neighbourhood plan (2014) for 10 homes plus community uses; and HKD0008 also an allocation in the made neighbourhood plan, for nine homes. In total, therefore, there is committed growth for 73 homes, which amounts to a significant level of growth for a small village such as Kirdford.

With regards to potential options for further growth, a first port of call is land to the south of the village, namely adjacent sites **HKD0001a** (discussed above) and **HKD0001b**, which the HELAA identifies as having capacity for 40 homes. There is currently a live planning application for **70 homes** across the two adjacent sites, which form a single field, and this is considered a reasonable option to test, as this land does relate well to the village.

However, there is also an argument for more modest housing growth here, e.g. **50 homes**, potentially alongside community infrastructure, including given: the adjacent conservation area; the public right of way through the site (plus the wider site appears to be informally accessed, e.g. for dog walking); and possible onsite biodiversity value.

Moving on to site options to the north of the village, this is broadly considered to be a sequentially less preferable direction for growth, given that: the sites are less well connected to the village and road network; there is a high density of woodland, mature hedgerows and PRoWs; and committed site HKD0002 is nearby.

Several different configurations of growth might be envisaged across **HKD0007**, **HKD0009** and/or **HKD0011**, involving up to **250 homes**, which is the combined HELAA capacity of these three sites. However, access is a key issue, e.g. it seems likely that sites would require access from one another (it seems likely that HKD0007 would require access from HKD0009, via a small stream / surface water flood channel). Another consideration is the lack of any field boundary between HKD0009 and/or HKD0011.

Looking **beyond HELAA sites**, it is difficult to envisage a higher growth scenario that delivers a primary school. The Landscape Capacity Study notably identifies land to the east of the village as having relatively high landscape capacity; however, in addition to the land in question not having been made available, there would be a concern regarding long term development creep east across a flat and relatively featureless landscape.

With regards to reasonable growth scenarios, as an initial step it is fair to rule-out, as 'unreasonable', the **lowest growth scenario**, i.e. growth at committed sites only. There is a clear argument for growth at Kirdford over-and-above commitments, given: A) the strategic context (i.e. the ~1,800 home target figure for the northeast plan area); and B) significant capacity at sites found to have capacity through the HELAA.

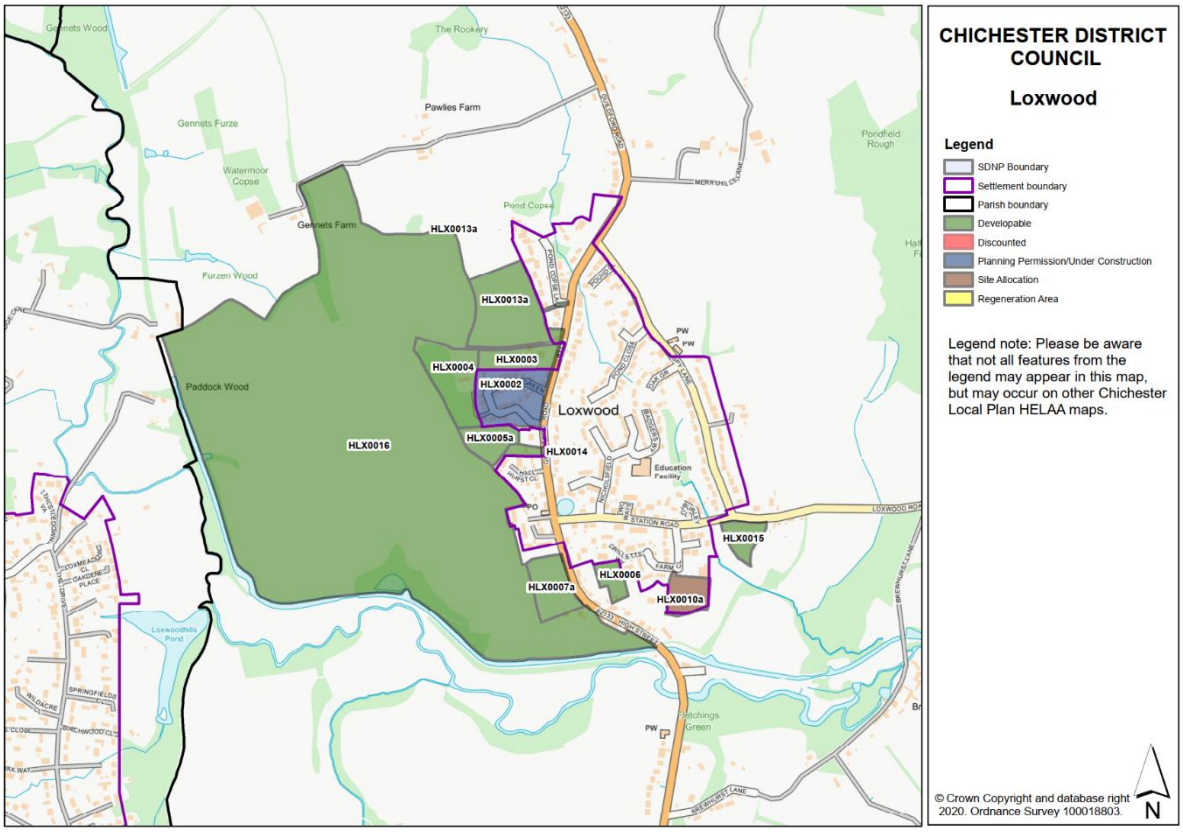
With regards to the **highest growth scenario**, namely a scenario involving commitments plus up to an additional 70 homes to the south of the village plus up to an additional 250 homes to the north of the village, there is an argument for ruling this out as unreasonable, because Kirdford is poorly connected and does not benefit from a primary school, aligned with the fact that there is seemingly no potential to deliver a new school. However, on the other hand, there is a need to consider the strategic context, plus a view that development of HKD0009 would, in turn, lend support for additional allocation of HKD0011, because of the lack of an intervening field boundary.

In conclusion, **three growth scenarios** emerge, namely completions, commitments and windfall plus:

- **Scenario 1** – 50 homes, assumed likely to involve a southern focus.
- **Scenario 2** – 150 homes, assumed to involve up to 70 homes to the south plus limited growth to the north (presumably to include HKD0009).
- **Scenario 3** – 300 homes, assumed to involve up to 70 homes to the south plus up to 250 homes to the north.

Under the first two scenarios it is fair to assume that the task of allocation would be delegated to the Parish Council, given a range of detailed site specific considerations that will have a bearing on appropriate site capacities / densities, and given that the Parish Council has a track record in respect of neighbourhood planning. However, under the highest growth scenario there would be a strong argument for allocation through the local plan, given the number of homes involved, and given limited choice in respect of site selection.

Loxwood



Beginning with HLX0002, which is shown as benefiting from planning permission in the figure above, this site has now delivered in full, with all homes coming forward prior to the start of the plan period (1st April 2021).

The other committed site shown in the figure above is HLX0010a, which is a neighbourhood plan allocation for 17 homes, plus three of the sites shown as developable (HLX0007a, HLX0013a and HLX0014) have gained planning permission since the HELAA was published. As such, the total commitments figure is 95 homes.

With regards to new allocations, the first port of call is the following series of sites that relate well to the existing settlement boundary and, indeed, are included within the revised settlement boundary presented within the version of the Loxwood Neighbourhood Plan Review published for consultation in 2020: **HLX0003**; **HLX0004**; **HLX0005a** and **HLX0006**. The assumed capacity of these sites is 70 homes.[31]

The next site to consider is **HLX0015**, which was not supported by the neighbourhood plan published for consultation in 2020. This site is adjacent to a stream corridor / flood risk zone, and there are two near adjacent grade 2 listed buildings that contribute to an attractive eastern 'gateway' to the village. However, the site could be considered to relate well to the village edge in built form terms. The HELAA capacity is 15 homes.

Finally, there is a need to consider **HLX0016**, which the HELAA supported through round 1 (as per all of the other sites discussed above) and suggested might have a capacity of ~**1,000 homes**, reflecting of the capacity figure suggested by the site promoter at that time.

There are clear arguments for giving close consideration to the option of a strategic scheme here, with a view to delivering: a good mix of housing (possibly to include an element of specialist housing); a good amount of land given over to green / blue infrastructure and other non-housing uses onsite (the HELAA discusses the potential for employment land); and possibly investment in offsite infrastructure. These arguments relate to the limited environmental constraints affecting the area, combined with the strategic context, namely the ~1,800 home target figure for the northeast plan area. The site is bounded to the west by the river / canal corridor, which is a clear sensitivity, but could also potentially represent something of an opportunity.

However, latest understanding is that access constraints could rule-out the option of a strategic scheme involving the entire site. Specifically, whilst there is access from the B2133 at the southern extent of the site, there is no clear means of accessing the B2133 from the north, given land availability. There is a farm track linking the northern extent of the site to the B2133, but it is not clear that transforming this into an access road for a strategic scheme would be achievable, including as the track is a PRoW and there are two grade 2 listed buildings at the junction of the track and the B2133. For these reasons, the current view of the site promoters is that only the very southeast part of the site is developable within the plan period, with a capacity of **up to 400 homes**.[32]

Looking **beyond HELAA sites**, the possibility of more comprehensive growth to the west of the village additionally including the parcel of land to directly to the north of the village and west of the B2133 might be envisaged. This would be supported from a transport perspective, and the possibility of growth integrating well with the adjacent village hall might be envisaged. However, aside from this land being unavailable, an important constraint relates to the small patch of ancient woodland found within this parcel of land.

With regards to land to the east of Loxwood, attention focuses on land to the north of the village, as there would be the potential for direct access onto the B2133, and also avoid the risk of the settlement expanding towards sensitive woodlands to the east. However, the strategic growth to the west is the sequentially preferable option, not least given land availability, and further strategic growth to include land to the east of the B2133 would risk an unreasonably high growth strategy. It is not clear that there are any particular opportunities that might be realised via a very high growth strategy, aside from delivering housing to meet the plan area needs.

With regards to reasonable growth scenarios, as an initial step it is fair to rule-out the **low growth scenarios**, specifically a scenario involving committed sites only and scenarios involving fewer than 70 homes across sites HLX0003; HLX0004; HLX0005a and HLX0006 (i.e. the sites supported by the draft neighbourhood plan in 2020). Assuming that wastewater treatment constraints can be overcome, then there is a clear argument for significant growth at Loxwood, given strategic, settlement specific and site-specific factors.

In conclusion, **three growth scenarios** emerge, namely completions, commitments and windfall plus:

- **Scenario 1** – 75 homes, assumed to involve the 70 homes at the sites supported by the draft neighbourhood plan in 2020 and potentially also HLX0015 to the east (a small site of fairly limited significance).
- **Scenario 2** – 450 homes, assumed to involve Scenario 1plus up to 400 homes within HLX0015.

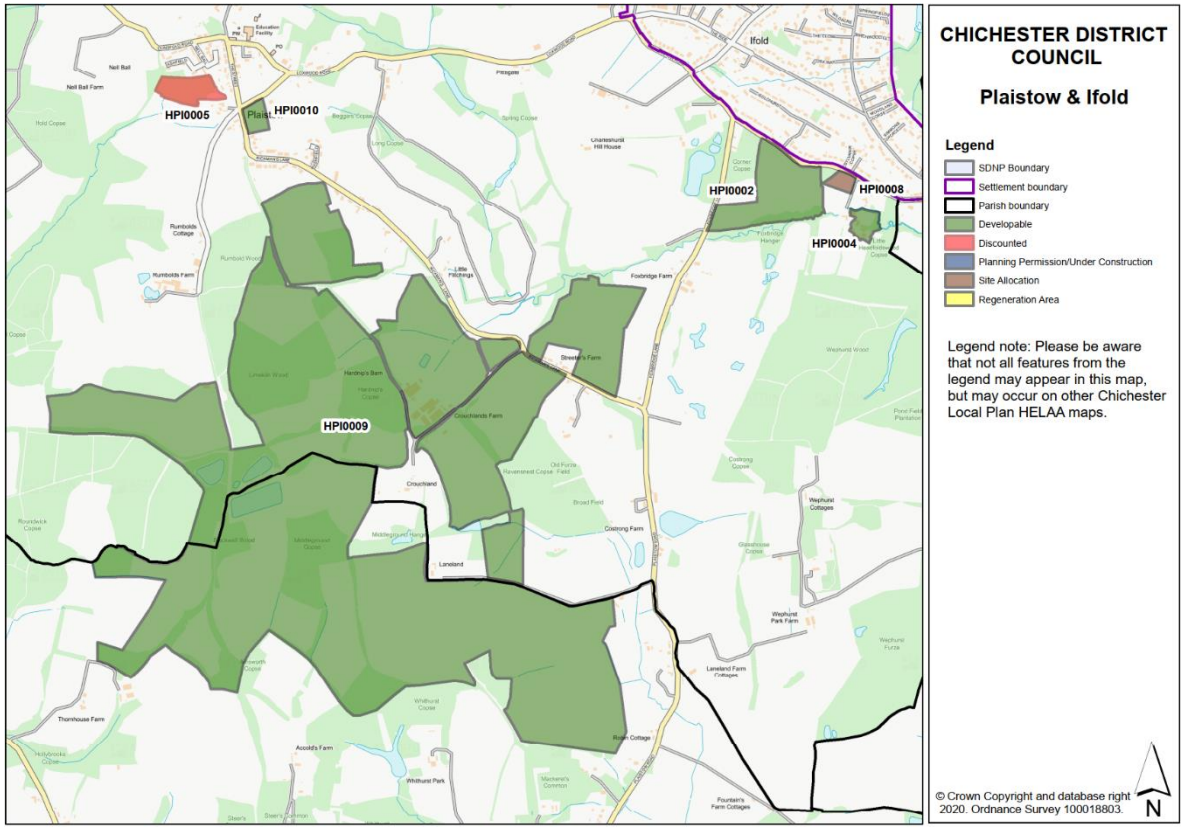
[31] HLX0003 – 10 homes on the basis of pre-application discussions, although there has been a refused application for 18 homes; HLX0004 – 32 homes in line with the HELAA and the allocation in the emerging NP; HLX0005a – 25 homes in line with the HELAA, although an allocation in the emerging NP for 22 homes and a pending application for 29 homes; HLX0006 – 5 homes in line with a pending application, although the HELAA says 10 homes.

[32] The promoters now identify capacity of 325 homes.

- **Scenario 3** – 1,050 homes, assumed to involve Scenario 1 plus HLX0016 in full. Whilst this may not be achievable, it is considered appropriate to explore the option nonetheless.

Under all of these scenarios there would be an argument for allocations being made through the local plan, with a view to avoiding the risk of delays through a neighbourhood plan, recognising that: A) the smaller sites in question appear relatively clear cut; and B) any scheme within HLX0015 would be of strategic importance to the district. However, on the other hand, the Parish Council has a strong track record of neighbourhood planning and has demonstrated its ability to deliver growth broadly as per Scenario 1, via the draft neighbourhood plan published for consultation in 2020.

Plaistow and Ifold



There has been relatively little recent housing growth within the parish, and there is only one small committed site, namely HPI0008, which is an allocation in the 2014 sites DPD for 10 homes. It is counted as a commitment in the HELAA; however, as it has not progressed since 2014, such that it is fair to assume some deliverability issues.

The next site to consider is **HPI0010**, at Plaistow. The site was supported as an allocation for 11 homes in a recent a draft neighbourhood plan submitted for examination in 2020; however, that plan has now been withdrawn from examination. The HELAA identifies a capacity of **30 homes**. It is also noted that the site comprises part of a larger field, and the potential to develop the field as a whole, e.g. for 50 homes, can be envisaged.

The next two sites to consider are **HPI0002** and **HPI0004**, at the southern edge of Ifold. The former site has been promoted for 200 homes, but the HELAA identifies a capacity of **150 homes**, with this lower capacity supported given adjacent woodland (also potentially onsite mature trees) and an adjacent listed building. The latter site is separated from the settlement boundary (and, indeed, is separated by a stream corridor), with the HELAA identifying a capacity of up to **15 homes**, but there are arguments for more modest growth. Ideally, a strategic approach to growth would be taken in this sector of land, also accounting for committed site HPI0008.

Finally, there is a need to consider **HPI009**, which is being actively promoted for around 600 homes plus land for a new primary school, with the proposal to deliver development only within the eastern-most parcels of land shown within the figure above. As such, the proposed scheme would be in the form of a new settlement, separated from Plaistow to the north. A request for an EIA Scoping Opinion was submitted in July 2022 (22/01754/EIA). Also, and importantly, there is a separate scheme being promoted that would involve implementing a Whole Farm Plan without housing (22/01735/FULEIA).[33]

[33] The Whole Farm Plan proposes commercial and high welfare, low impact and low intensity farming activity, the gradual development of a rural enterprise centre, a rural food and retail centre, equestrian centre, and glamping site.

Looking beyond HELAA sites:

- At Plaistow there are small fields / parcels of land surrounding the village that might possibly be considered for housing, and attention potentially focuses on land to the north and west of the village, given heritage and biodiversity constraints, and topography here could serve to contain expansion. However, it is not possible to envisage any reasonable scenario that would deliver significant additional growth, given the constrained and poorly connected nature of the village (albeit it does benefit from a primary school, and will benefit from good road access to Dunsfold Aerodrome in the future).
- With regards to Ifold, there is a growth related opportunity around delivering new community infrastructure. However, it is difficult to envisage a direction for significant expansion. Attention potentially focuses on land to the east, adjacent to the north of the Plaistow Road (and therefore relatively well connected to the B2133), but this parcel of land would not connect well to the existing area of settlement, including given an intervening band of ancient woodland, and there is low landscape capacity. The only other broad sector of land not heavily constrained by woodland is land to the west; however, this is rising land that contributes to the gap to Plaistow.

With regards to reasonable growth scenarios, as an initial step it is fair to rule-out the **lowest growth scenario**, i.e. growth only at committed site HPI0008. Assuming that wastewater constraints can be overcome, then there is a clear argument for growth at Plaistow and Ifold, over-and-above commitments, mindful of the strategic context.

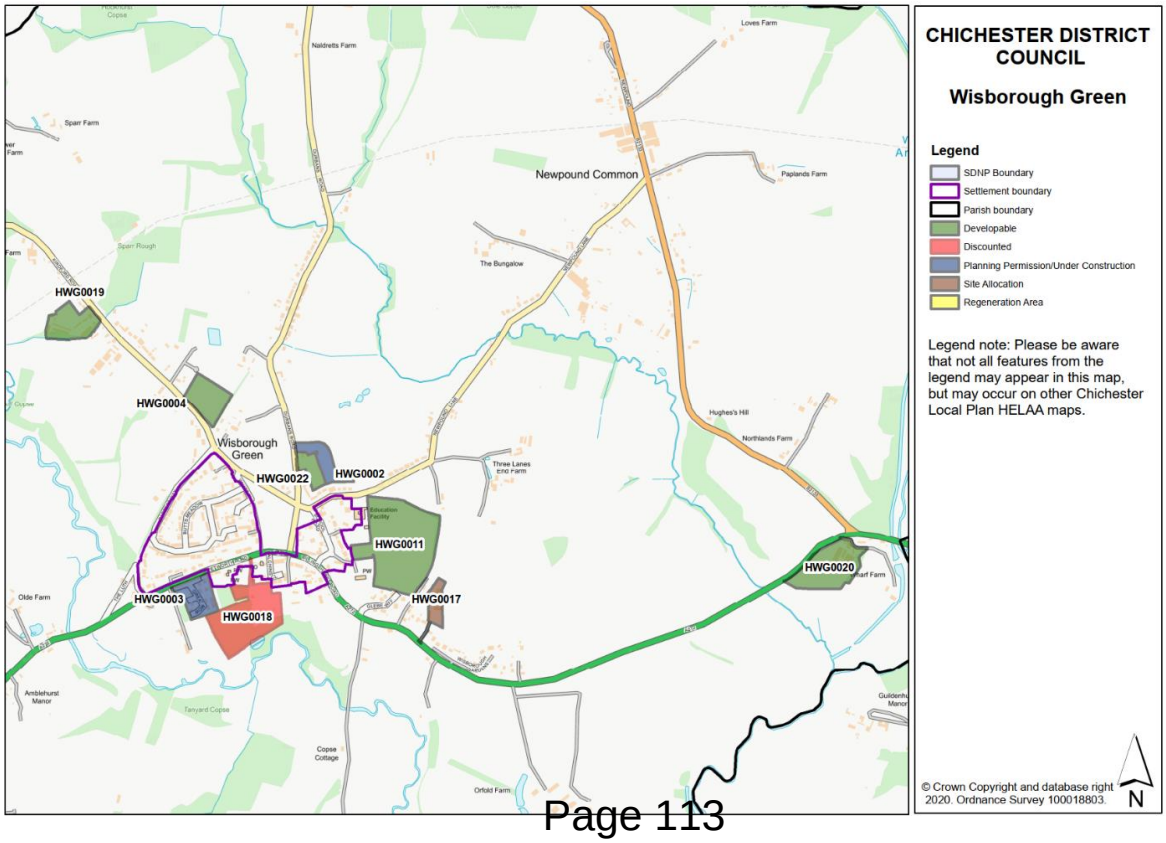
In conclusion, **three growth scenarios** emerge, namely completions, commitments and windfall plus:

- **Scenario 1** – 25 homes, assumed to involve either allocation of just HPI0010 (Plaistow) or allocation of HPI0010 in combination with HPI0004.
- **Scenario 2** – 150 homes, assumed to involve allocation of HPI0002 although, in practice, there would be flexibility to consider also allocating HPI0010 and/or HPI0004.
- **Scenario 3** – 175 homes, involving allocation of all three sites discussed above.

Under all scenarios there would be a strong argument for allocations to be made through a neighbourhood plan, as the Parish Council would be well placed to make a final decision on how to distribute growth across sites. The Parish Council has unfortunately not been in a position to move to a successfully 'made' neighbourhood plan to-date, but did progress a plan to examination.

Finally, with regards to **HPI009**, namely the option of a new settlement at Crouchlands Farm, there is a clear need to test this option, but it requires stand-alone consideration, as opposed to consideration alongside the other site options at Plaistow and Ifold. It is discussed further in Section 5.4.

Wisborough Green



There has been significant recent housing growth, with HWG0003 delivered just prior to the start of the plan period (22 homes) and HWG0002 having delivered in the first year of the plan period (25 homes). Also, HWG0017 is an existing allocation for 11 homes. As such, the existing supply for the plan period is 25 + 11 = 36 homes. Also, whilst not shown on the map above, it is noted that a site for 10 residential caravans was delivered in 2016/17.

With regards to potential allocations, the first three sites to consider are HWG0004, HWG0019 and HWG0022, as these sites were proposed for allocation in a draft version of the Wisborough Green Neighbourhood Plan Review published for consultation in 2021. Considerations are as follows:

- **HWG0004** – the assumption within both the draft neighbourhood plan and the HELAA is delivery of **10 homes** plus ~0.9 ha of open space. There is feasibly the potential to deliver housing across the entire site, which could lead to a capacity of up to 40 homes (and there is also land directly to the northeast of the site that might additionally come into consideration, were it to be made available). An Inspector gave clear reasons for dismissing an appeal for a larger scheme in 2018 (16/02717/OUT).
- **HWG0019** – the assumption within both the draft neighbourhood plan and the HELAA is delivery of **18 homes** plus three employment units, in order to demonstrate no net loss of employment. This site is clearly some way distant such from the village core, such that it was supported only through round 2 of the HELAA. The neighbourhood plan sets out that there would be a need to deliver a footpath between the site and the village core, in order for the site to come forward, which could potentially create a delivery challenge.
- **HWG0022** – the HELAA assumes 10 homes, whilst the draft neighbourhood plan sets out that the latest proposal from the site promoter is for 8 homes. This site is sensitive on account of the conservation area.

A further site is also available, and supported within the draft neighbourhood plan, known as **Tanglewood Nursery**. This is a current nursery site located between HWG0004 and HWG0019 and is proposed for **9 homes**.

Finally, there is a need to consider **HWG0011** (N.B. HWG0020 is proposed only for employment, and so need not be considered further here). This site is not supported by the Parish Council, and is clearly sensitive in historic environment terms, as it intersects the conservation area and the grade 1 listed parish church, which is prominent on raised ground, is near adjacent. There are also historic field boundaries and PRoW running through and adjacent to the site. However, sensitive views into and across the site are limited, specifically primarily limited to the PRoW (also potentially Newpound Lane, subject to hedgerow height), and a sensitively masterplanned scheme could relate quite well to the existing built form of the village. The HELAA identifies a capacity of **80 homes**, which amounts to a gross density of 14.5 homes per hectare, which is assumed to be a suitably low density. However, it is recognised that detailed work could serve to highlight the need for fewer homes given the sensitivities.

Looking **beyond HELAA sites**, it is difficult to envisage the potential for further strategic growth. Attention focuses on the arc of land to the north and east of the village, as land to the west is constrained on account of a prominent hill and the national park, whilst land to the south is constrained by a river corridor. However, within this sector, land to the north is poorly connected, and in all directions there would be a risk of poor containment within the landscape / future sprawl and impacts to the valued historic character of the village.

With regards to reasonable growth scenarios, as an initial step it is fair to rule-out the **low growth scenarios**, specifically a scenario involving committed sites only and scenarios involving fewer than 45 homes across sites HWG0004, HWG0019, HWG0022 and Tanglewood Nursery (i.e. the sites supported by the draft neighbourhood plan in 2021). There is a clear argument for significant growth at Wisborough Green, given the strategic context. It is recognised that two of the sites are separated from the village core / settlement boundary; however, the strategic context serves to suggest a need to take these sites forward nonetheless.

In conclusion, **three growth scenarios** emerge, namely completions, commitments and windfall plus:

- **Scenario 1** – 50 homes, assumed to involve the draft neighbourhood plan sites plus an additional five homes.
- **Scenario 2** – 75 homes, assumed to involve the draft neighbourhood plan sites plus *either* additional homes at either HWG0004 *or* additional allocation of HWG0011 for a low density scheme.
- **Scenario 3** – 125 homes, assumed to involve the draft neighbourhood plan sites plus allocation of HWG0011 for up to 80 homes.

Under all of these scenarios it is fair to assume that the task of allocation would be delegated to the Parish Council, given a range of detailed site specific considerations that will have a bearing on appropriate site capacities / densities, and given that the Parish Council has a strong track record in respect of neighbourhood planning.

Chichester Local Plan

Habitats Regulations Assessment

Chichester District Council

January 2023

Quality information

Prepared by	Checked by	Verified by	Approved by
Amelia Kent Senior Ecologist	James Riley Technical Director	Max Wade Technical Director	James Riley Technical Director

Revision History

Revision	Revision date	Details	Authorized	Name	Position
1	13/01/23	Final	JR	James Riley	Technical Director

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Executive Summary

A Habitats Regulation Assessment was commissioned by Chichester District Council and undertaken by AECOM for the Chichester Local Plan. This included both an assessment of Likely Significant Effects and an Appropriate Assessment. The HRA investigated potential impact pathways that could link the Local Plan to European sites (including the Medmerry Nature Reserve), alone and in combination with other plans and projects. Impact pathways explored include recreational pressure, water quality (nutrient neutrality), water quantity, level and flow (including water neutrality for Arun Valley SAC/Ramsar site), loss of functionally linked habitat, atmospheric pollution, and coastal squeeze.

The HRA identified that the Chichester Local Plan contains a sufficient protective policy framework to ensure that development coming forward under the Chichester Local Plan will not result in adverse effects on integrity of any European sites, either in isolation, or in combination, subject to further detailed work for planning applications in the standard manner. Key positive policy provisions that ensure this include (this is not an exhaustive list) are:

- Policy NE4 Strategic Wildlife Corridors: Development will only be permitted where it would not lead to an adverse effect upon the ecological value, function, integrity and connectivity of the strategic wildlife corridors.
- Policy NE5 Biodiversity and Biodiversity Net Gain: All development shall ensure the conservation, protection, enhancement and restoration of biodiversity, avoiding any adverse impact on the condition and recovery of all types of nature conservation sites, habitats and species within their ecological networks.
- Policy NE6 Chichester's Internationally and Nationally Designated Habitats: Development will only be permitted where it would not lead to an adverse effect upon the integrity, either alone or in-combination, directly or indirectly, on internationally, European and nationally important habitat sites.
- Policy NE7 Development and Disturbance of Birds in Chichester and Langstone Harbours, Pagham Harbour, Solent and Dorset Coast Special Protection Areas and Medmerry Compensatory Habitat: Provides specific protection against recreational pressure for SPA protected birds from development within 5.6 km of the Chichester and Langstone Harbours and Solent and Dorset Coast SPA and 3.5 km of the Pagham Harbour SPA and includes mitigation through contributions to a joint strategy or a developer provided package of measures.
- Policy NE8 Trees, Hedgerows and Woodlands: Development proposals will only be granted where it can be demonstrated proposals conserve and, where appropriate, enhance existing valued and protected trees, hedgerows and woodlands and other such relevant criteria.
- Policy NE11 The Coast: The Council will continue to work with partner organisations and authorities to protect and enhance the Plan's coastal areas, including around Chichester Harbour, Pagham Harbour, Medmerry Managed Realignment Scheme and the open coast.
- Policy NE12 Development Around the Coast: Planning permission will be granted for development on the coast where it can be demonstrated that there are no harmful effects on or net loss of nature conservation or areas of geological importance, in particular within the Chichester and Pagham Harbours and Medmerry Managed Realignment Scheme (including no adverse effects on the associated European designated sites) and other such relevant criteria.
- Policy NE13 Chichester Harbour Area of Outstanding Natural Beauty: The impact of individual proposals and their cumulative effect on Chichester Harbour AONB and its setting will be carefully assessed. Planning permission will be granted where it can be demonstrated that the natural beauty and locally distinctive features of the AONB are conserved and enhanced, and other such relevant criteria.

Recommendations have been made for amendments to policy text in relation to recreational pressure for the Chichester and Langstone Harbour European sites and Pagham Harbour European sites and loss of functionally linked supporting habitat for birds around the Pagham Harbour European sites. These recommendations have

been made to ensure that that the Chichester Local Plan provides robust protection for European designated sites. These are summarised below:

- Policy E9: Caravan and Camping Sites: To ensure this policy provides a robust framework to ensure the protection of European sites, it is recommended that policy text is amended as follows (amendments in **bold**, addition underlined, removal ~~strikethrough~~):

*'**~~Whether there is a requirement~~** **The degree of protection considered desirable in order** to avoid disturbance to sensitive sites of ecological value (including ensure no adverse effects on integrity of sensitive European designated wildlife sites occurs) or to protect the tranquillity and character of the countryside, Chichester Harbour Area of Outstanding Natural Beauty and the setting of the National Park, Pagham Harbour and the undeveloped coast; and'*

- Policy NE12: Development around the Coast: It is recommended that point 1 and 2 is amended as follows (amendments in **bold**, addition underlined, removal ~~strikethrough~~)

'*1. There are no harmful effects on or net loss of nature conservation or areas of geological importance **~~in particular~~** within the Chichester and Pagham Harbours and Medmerry Realignment (including no adverse effects on the associated European designated sites);*

*2. **~~If~~** **T**he development provides recreational opportunities that **~~they~~** do not adversely affect the character, environment and appearance of the coast and Chichester Harbour Area of Outstanding Natural Beauty or **~~damage~~** **result in adverse effects on** the integrity to European designated wildlife sites'*

Policy E4 Horticultural Development was screened out of the HRA as not causing a likely significant effect since it is a development management policy that lists criteria against which a given proposal would be deemed acceptable rather than making allocations or identifying a quantum of growth. However, since Policy E4 sets out the detailed criteria for accepting development within the HDAs, additional wording was recommended to ensure protection for European sites with regards to development allocated within Policy E3 Addressing Horticultural Needs:

- Policy E4 Horticultural Development: It is recommended that this policy include the following additions: '*Ensure that development avoids harm to protected species and existing important habitats features and facilitates the achievement of biodiversity net gain and facilitates the creation of high levels of habitat connectivity within the site and to the wider Green Infrastructure network and identified Strategic Wildlife Corridors within the parish. This includes the provision of appropriate buffers as necessary in relation to important habitats which are being retained and/or created. Successfully avoid and/or mitigate potential impacts on the Pagham SPA/Ramsar, including contributing to any strategic access management issues (including on-site mitigation where required as part of the Habitats Regulations Assessment), and potential for loss of functionally linked supporting habitat.'*

- Finally, Policy A8: East of Chichester: it is recommended that wording regarding project level HRA for the East of Chichester site is included regarding loss and degradation of functionally linked land such as '*Any development brought forward at this site will require a project level HRA to establish that adequate mitigation is in place in line with the submission of a planning application to ensure no adverse effects on the integrity of Singleton and Cocking Tunnels SAC or any other European sites.'*

A full analysis of the impacts of the Chichester Local Plan in combination with other plans and projects was made as part of the HRA report.

Overall, the HRA concluded that the Chichester Local Plan would result in no adverse effect on integrity of European sites either alone or in-combination with other plans and projects.

1. Introduction

Introduction

1.1 AECOM has been appointed by Chichester District Council to assist in undertaking a Habitats Regulations Assessment (HRA) of the Local Plan, which is being undertaken to reflect new data and changing circumstances since preparation of the existing Chichester Local Plan: Key Policies 2014-2029 (adopted in July 2015). As part of the Review, the Council intends to extend the Plan period to 2039. The objectives of this HRA assessment are to:

- Identify any aspects of the Local Plan that would cause an adverse effect on the integrity of Habitats sites, otherwise known as European sites (Special Areas of Conservation (SACs), Special Protection Areas (SPAs), protected SPAs (pSPAs) and, as a matter of Government policy, Ramsar sites), either in isolation or in combination with other plans and projects; and
- To advise on appropriate policy mechanisms for delivering mitigation where such effects were identified.

Legislative context

1.2 The UK left the EU on 31 January 2020 under the terms set out in the European Union (Withdrawal Agreement) Act 2020 ("the Withdrawal Act"). This established a transition period, which ended on 31 December 2020. However, the Withdrawal Act retains the body of existing EU-derived law within our domestic law and it is clear that the HRA process continues post-Brexit.

1.3 The need for Appropriate Assessment (Figure 1) is set out within the Conservation of Habitats and Species Regulations 2017 (as amended).

1.4 The HRA process applies the 'Precautionary Principle'[1] to European sites. Plans and projects can only be permitted having ascertained that there will be no adverse effect on the integrity of the European site(s) in question. Plans and projects with predicted adverse impacts on European sites may still be permitted if there are no alternatives to them and there are Imperative Reasons of Overriding Public Interest (IROPI) as to why they should go ahead. In such cases, compensation would be necessary to ensure the overall integrity of the site network.

1.5 In order to ascertain whether or not site integrity will be affected, an Appropriate Assessment should be undertaken of the plan or project in question:

Figure 1: The legislative basis for Appropriate Assessment

Conservation of Habitats and Species Regulations 2017 (as amended)

The Regulations state that:

"*A competent authority, before deciding to … give any consent for a plan or project which is likely to have a significant effect on a European site … shall make an appropriate assessment of the implications for the site in view of that sites conservation objectives… The authority shall agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the European site*".

1.6 Over time the phrase 'Habitats Regulations Assessment' (HRA) has come into wide currency to describe the overall process set out in the Habitats Directive from screening through to IROPI. This has arisen in order to distinguish the process from the individual stage described in the law as an 'Appropriate Assessment'.

[1] The Precautionary Principle, which is referenced in Article 191 of the Treaty on the Functioning of the European Union, has been defined by the United Nations Educational, Scientific and Cultural Organisation (UNESCO, 2005) as: *"When human activities may lead to morally unacceptable harm* [to the environment] *that is scientifically plausible but uncertain, actions shall be taken to avoid or diminish that harm. The judgement of plausibility should be grounded in scientific analysis".*

1.7 In spring 2018 the 'Sweetman' European Court of Justice ruling[2] clarified that 'mitigation' (i.e. measures that are specifically introduced to avoid or reduce a harmful effect on a European site that would otherwise arise) should **not** be taken into account when forming a view on likely significant effects. Mitigation should instead only be considered at the Appropriate Assessment stage. This HRA has been cognisant of that ruling.

Scope of the Project

1.8 There is no guidance that dictates the physical scope of an HRA of a Plan document in all circumstances. Therefore, in considering the physical scope of the assessment, we were guided primarily by the identified impact pathways (called the source-pathway-receptor model) rather than by arbitrary 'zones'. Current guidance suggests that the following European sites be included in the scope of assessment:

- All sites within the boundary of Chichester District; and,
- Other sites shown to be linked to development within the authority boundary through a known impact 'pathway' (discussed below).

1.9 Briefly defined, impact pathways are routes by which the implementation of a policy within a Local Plan document can lead to an effect upon a European designated site. An example of this would be new residential development resulting in an increased population and thus increased recreational pressure, which could then affect European sites by, for example, disturbance of wintering or breeding birds.

1.10 Guidance from the Department for Levelling Up, Housing and Communities (DLUHC) states that the HRA should be '*proportionate to the geographical scope of the* [plan policy]' and that '*an AA need not be done in any more detail, or using more resources, than is useful for its purpose'* (DLUHC, 2006, p.6). More recently, the Court of Appeal ruled that providing the Council (competent authority) was duly satisfied that proposed mitigation could be 'achieved in practice' to satisfy that the proposed development would have no adverse effect, then this would suffice. This ruling has since been applied to a planning permission (rather than a Core Strategy document). In this case the High Court ruled that for '*a multistage process, so long as there is sufficient information at any particular stage to enable the authority to be satisfied that the proposed mitigation can be achieved in practice it is not necessary for all matters concerning mitigation to be fully resolved before a decision maker is able to conclude that a development will satisfy the requirements of Reg 61 of the Habitats Regulations'*.

The Layout of this Report

1.11 Chapter 2 of this report explains the methodology by which this HRA has been carried out, including the three essential tasks that form part of HRA. Chapter 3 provides detailed background on the main impact pathways identified in relation to the Local Plan and the relevant European Sites. Chapter 4 undertakes the screening assessment of Likely Significant Effects (LSEs) of the Plan's policies (see Appendix A for the screening tables of Plan policies and the site allocations). Chapters 5 to 13 discuss the appropriate assessment for each of the European sites including their background. The conclusions and recommendations arising from the appropriate assessment are provided in Chapter 14.

Quality Assurance

1.12 This report was undertaken in line with AECOM's Integrated Management System (IMS). Our IMS places great emphasis on professionalism, technical excellence, quality, environmental and Health and Safety management. All staff members are committed to establishing and maintaining our certification to the international standards BS EN ISO 9001:2008 and 14001:2004 and BS OHSAS 18001:2007. In addition, our IMS requires careful selection and monitoring of the performance of all sub-consultants and contractors.

1.13 All AECOM Ecologists working on this project are members (at the appropriate level) of the Chartered Institute of Ecology and Environmental Management (CIEEM) and follow their code of professional conduct (CIEEM, 2017).

[2] People Over Wind and Sweetman v Coillte Teoranta (C-323/17)

2. Methodology

Introduction

2.1 The HRA has been carried out with reference to the UK government guidance on HRA[3]. Figure 2 below outlines the stages of HRA according to current EC guidance. The stages are essentially iterative, being revisited as necessary in response to more detailed information, recommendations, and any relevant changes to the plan until no significant adverse effects remain.

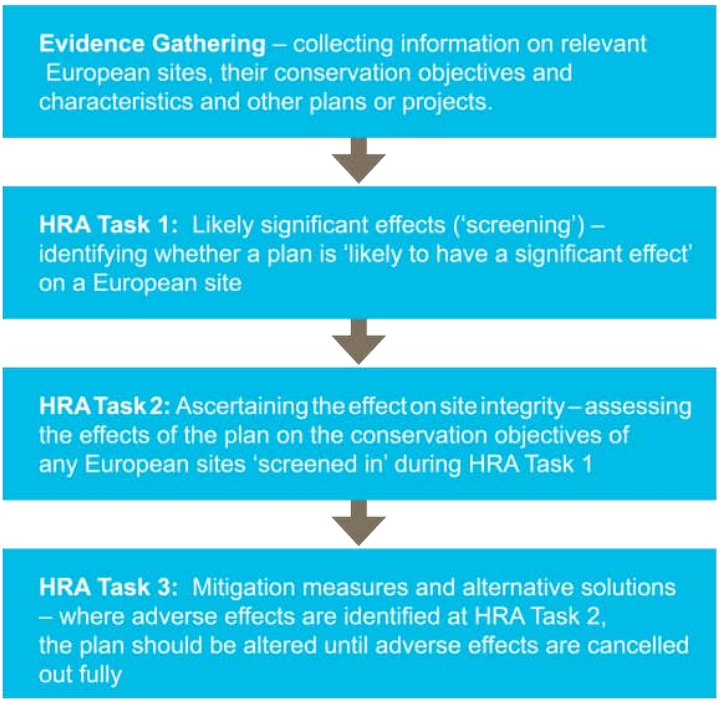


Figure 2. Four Stage Approach to Habitats Regulations Assessment.

Description of HRA Tasks

HRA Task 1 – Likely Significant Effects (LSE)

2.2 Following evidence gathering, the first stage of any Habitats Regulations Assessment is a Likely Significant Effect (LSE) test - essentially a risk assessment to decide whether the full subsequent stage known as Appropriate Assessment is required. The essential question is:

'*Is the project, either alone or in combination with other relevant projects and plans, likely to result in a significant effect upon European sites*?'

2.3 The objective is to 'screen out' those plans and projects that can, without any detailed appraisal, be concluded to be unlikely to result in significant adverse effects upon European sites, usually because there is no mechanism for an adverse interaction. This stage is undertaken in Chapter 4 of this report and in Appendix A.

HRA Task 2 – Appropriate Assessment (AA)

2.4 Where it is determined that a conclusion of 'no Likely Significant Effect' cannot be drawn, the analysis has proceeded to the next stage of HRA known as Appropriate Assessment. Case law has clarified that 'Appropriate Assessment' is not a technical term. In other words, there are no particular technical

[3] https://www.gov.uk/guidance/habitats-regulations-assessments-protecting-a-european-site

analyses, or level of technical analysis, that are classified by law as belonging to appropriate assessment rather than determination of likely significant effects.

2.5 By virtue of the fact that it follows the screening process, there is a clear implication that the analysis will be more detailed than undertaken at the previous stage. One of the key considerations during Appropriate Assessment is whether there is available mitigation that would entirely address the potential effect. In practice, the Appropriate Assessment would take any policies or allocations that could not be dismissed following the high-level screening analysis and assess the potential for an effect in more detail, with a view to concluding whether there would actually be an adverse effect on site integrity (in other words, disruption of the coherent structure and function of the European site(s)).

2.6 Also, in 2018 the Holohan ruling[4] was handed down by the European Court of Justice. Among other provisions paragraph 39 of the ruling states that '*As regards other habitat types or species, which are present on the site, but for which that site has not been listed, and with respect to habitat types and species located outside that site, … typical habitats or species must be included in the appropriate assessment, if they are necessary to the conservation of the habitat types and species listed for the protected area*' [emphasis added]. This has been considered in relation to the Arun Valley SPA / Ramsar, which supports mobile bird species and The Mens SAC, Singleton and Cocking Tunnels SAC and Ebernoe Common SAC, which all support mobile bat species.

HRA Task 3 – Avoidance and Mitigation

2.7 Where necessary, measures are recommended for incorporation into the Plan in order to avoid or mitigate adverse effects on European sites. There is considerable precedent concerning the level of detail that a Local Plan document needs to contain regarding mitigation for recreational impacts on European sites. The implication of this precedent is that it is not necessary for all measures that will be deployed to be fully developed prior to adoption of the Plan, but the Plan must provide an adequate policy framework within which these measures can be delivered.

2.8 In evaluating significance, AECOM has relied on professional judgement as well as the results of previous stakeholder consultation regarding development impacts on the European sites considered within this assessment.

2.9 When discussing 'mitigation' for a Local Plan document, one is concerned primarily with the policy framework to enable the delivery of such mitigation rather than the detail of the mitigation measures themselves since the Local Plan document is a high-level policy document.

Geographical Scope of the HRA

2.10 There are no standard criteria for determining the ultimate physical scope of an HRA. Rather, the source-pathway-receptor model should be used to determine whether there is any potential pathway connecting development to any European sites.

2.11 The following European sites lie (at least partly) within Chichester District:

- Chichester and Langstone Harbours SPA and Ramsar sites;
- Pagham Harbour SPA and Ramsar sites;
- Solent Maritime SAC; and
- Solent and Dorset Coast SPA

2.12 Chichester and Langstone Harbours SPA and Ramsar site and Solent Maritime SAC overlap with the Solent and Dorset Coast SPA; unlike the other SPA designations the Solent and Dorset Coast SPA extends much further out into coastal waters. This SPA is proposed to protect the open water feeding grounds for internationally important populations of common, sandwich and little terns. Since nothing in the Local Plan would affect the ability of the open waters in the Solent and Dorset Coast to continue

[4] Case C-461/17

to provide adequate fish resources for foraging terns, the site allocations are extremely unlikely to affect the potential Solent and Dorset Coast SPA. This particular SPA is therefore not discussed further.

2.13 Due to the location of the Solent and Dorset Coast SPA beyond the harbours and within the 'open sea' environment it is considered that it is not sensitive to changes in water quality of draining rivers as its open tidal location ensures continuous mixing. In addition, the plan does not provide any linking impact pathways that could result in increased disturbance at sea from shipping activities or recreational activities that could interact with the SPA. It is for these reasons that this European site is not considered further.

2.14 The following European sites lie within Chichester District, but outside the area covered by the Local Plan as they are within the South Downs National Park. Although the South Downs National Park has its own planning policies, these European sites are considered as there are pathways of impact that may link development within Chichester to these sites:

- Ebernoe Common SAC;
- Singleton & Cocking Tunnels SAC;
- The Mens SAC;
- Duncton to Bignor Escarpment SAC; and,
- Kingley Vale SAC.

2.15 The following European sites lie outside of the Local Plan Area. They were screened out for the adopted Local Plan. However, since that time Natural England has raised a concern regarding inappropriate water levels and the extent to which these are affected by public water supply, so the site is considered in this HRA:

- Arun Valley SAC, SPA & Ramsar sites.

2.16 Arun Valley SPA and Ramsar site is vulnerable to loss of functionally linked supporting habitat located outside of the European site. However, research into the location of the area of functionally linked supporting habitat[5] identifies no areas within Chichester District Council authority boundary and outside the South Downs National Park Authority that serve as functionally linked supporting habitat for the SPA.

2.17 In addition to those discussed above, the following sites were scoped out of the assessment of the developing Local Plan since there was no identifiable pathway linking development in the Local Plan area to these sites:

- Rook Clift SAC;
- East Hampshire Hangers SAC;
- Shortheath Common SAC;
- South Wight Maritime SAC;
- Wealden Heaths Phase II SPA;
- Solent and Isle of Wight Lagoons SAC; and
- Thursley and Ockley Bogs Ramsar site.

2.18 It is considered that there remains no realistic impact pathway linking these sites to the proposed strategic site allocations in the Chichester plan area. Therefore, they are not discussed further in this report.

2.19 The locations of the above mentioned European sites are illustrated in Appendix A, Figure A1. It should be noted that the presence of a conceivable pathway linking the district to a European site does not mean that likely significant effects will occur.

[5] https://www.arun.gov.uk/download.cfm?doc=docm93jijm4n10217.pdf&ver=10138 [accessed 15/10/2018]

Confirming Other Plans and Projects That May Act 'In Combination'

2.20 It is a requirement of the Regulations that the impacts of any land use plan being assessed are not considered in isolation but in combination with other plans and projects that may also be affecting the European site(s) in question.

2.21 In considering the potential for regional housing development on European sites the primary consideration is the impact of visitor numbers – i.e., recreational pressure – to which the European designated site within the Chichester plan area is vulnerable. Other pathways of impact described in more detail in Chapter 3 include urbanisation, atmospheric pollution, and pressure on water resources and water quality. Whilst these are also strongly related to housing and employment provision, the actual geographic impact must also be considered within the context of relevant infrastructure (e.g. road transport corridors and water supply catchments).

Table 1: Housing levels to be delivered in authorities neighbouring to Chichester District Council

Local Authority	Housing Levels To Be Delivered In Authorities Neighbouring Chichester District Council
South Downs National Park Authority	4,750 (2014 to 2033)[6]
Arun District Council	at least 20,000 (2011 to 2031)[7]
Horsham District Council	17,370 (2019 to 2036)[8]
Waverley Borough Council	11,210 (2013 to 2032)[9]
East Hampshire District Council (Whitehill-Bordon EcoTown)	10,060 (2011 to 2028)[10]
Havant Borough Council	9,549 (2016 to 2036) (withdrawn Local Plan)[11] 6,300 (Adopted Local Plan)[12]
Portsmouth City Council	up to 8,387 (2010-2027) (Adopted Local Plan[13] 16,933 (2020-2038) (Draft Reg 18 Local Plan)[14]

2.22 There are other plans and projects that are relevant to the 'in combination' assessment, and the following have all been taken into account in this assessment:

Plans

- Core Strategies/Local Plans and DPDs produced by local authorities surrounding the Local Plan area;
- Revised Portsmouth Water's Water Resource Management Plan (June 2021);
- Draft Portsmouth Water Resources Management Plan 2024 (October 2022)
- South East Water's Final Water Resources Management Plan (2019);
- Shoreline Management Plan 13 – North Solent - Selsey Bill to Hurst Spit (December 2010);
- Shoreline Management Plan 12 – South Downs - Beachy Head to Selsey Bill (2006);

[6] Chapter3-Spatial-Portrait-and-Spatial-Strategy.pdf (southdowns.gov.uk) [accessed 24/11/2022]
[7] https://www.arun.gov.uk/download.cfm?doc=docm93jijm4n12844.pdf&ver=12984 [accessed 24/11/2022]
[8] https://strategicplanning.horsham.gov.uk/gf2.ti/f/950722/63848645.1/PDF/-/Local%20Plan%20Review%20-%20Reg%2018%20Consultation%20Document.pdf [accessed 24/11/2022]
[9] http://www.waverley.gov.uk/download/downloads/id/5974/waverley_local_plan_part_1_chapters_only.pdf [accessed 24/11/2022]
[10] https://www.easthants.gov.uk/sites/default/files/documents/DP01EastHampshireDistrictLocalPlanJointCoreStrategy.pdf [accessed 24/11/2022]
[11] http://www.havant.gov.uk/sites/default/files/documents/The%20Draft%20Local%20Plan%202036_for%20web%20with%20policy%20numbers%20%281%29.pdf [accessed 24/11/2022]
[12] Havent Adopted Core Strategy 2011 (havant.gov.uk) [Accessed 24/11/2022)
[13] https://www.portsmouth.gov.uk/ext/documents-external/pln-portsmouth-plan-post-adoption.pdf [accessed 24/11/2022]
[14] Portsmouth Draft Reg 18 Local Plan 2020-2038 [accessed 24/11/2022]

- Pagham to East Head Coastal Defence Strategy (2014);
- Portchester Castle to Emsworth draft Coastal Flood and Erosion Risk Management Strategy (2012);
- Chichester Harbour AONB Management Plan 2019-2024 (February 2019);
- Chichester Harbour AONB State of the AONB Report 2018;
- South Downs Partnership Management Plan 2020-2025;
- Pagham Harbour Local Nature Reserve Management Plan (2014);
- Pagham Harbour Local Nature Reserve Annual Report 2019-2020;
- The relevant Environment Agency Abstraction Management Strategies;
- The relevant Environment Agency River Basin Management Plans;
- The relevant Environment Agency Water Level Management Plans;
- Environment Agency, Southern Water and Chichester District Council position statements on waste-water treatment works;
- Stage 3 and (as appropriate) 4 of the Environment Agency's Review of Consents process for the European sites covered in this assessment (where available);
- European Site Management and Access Management Plans where available;
- Chichester District Council Air Quality Management Plan 2021 – 2026 (February 2021);
- West Sussex Local Transport Plan 2022-2026 (April 2022);
- West Sussex Joint Minerals Local Plan to 2033 (July 2018);
- West Sussex Waste Local Plan 2014-2031 (April 2014);
- Review of West Sussex Waste Local Plan 2014-2031 (May 2019); and
- Chichester District Council's Local Biodiversity Action Plan 2020-2024 (February 2020).

2.23 When undertaking this part of the assessment it is essential to bear in mind the principal intention behind the legislation i.e. to ensure that those projects or plans which in themselves have minor impacts are not simply dismissed on that basis but are evaluated for any cumulative contribution they may make to an overall significant effect. In practice, in combination assessment is therefore of greatest relevance when the plan would otherwise be screened out because its individual contribution is inconsequential.

3. Relevant Impact Pathways

3.1 The following impact pathways are considered relevant to the Chichester Local Plan:

- Recreational pressure;
- Water quality;
- Water quantity, level and flow;
- Loss or degradation of functionally linked habitat; and
- Atmospheric pollution
- Coastal Squeeze

Background to Recreational Pressure

3.2 There is concern over the cumulative impacts of recreation on key nature conservation sites in the UK, as most sites must fulfill conservation objectives while also providing recreational opportunity. Various research reports have provided compelling links between changes in housing and access levels and impacts on European protected sites[15] [16]. This applies to any habitat, but the additional recreational pressure from housing growth on destinations designated for bird interests can be especially strong and some waterfowl qualifying for SPA designation are known to be susceptible to disturbance. Different European sites are subject to different types of recreational pressures and have different vulnerabilities. Studies across a range of species have shown that the effects from recreation can be complex. HRAs of Local Plans tend to focus on recreational sources of disturbance as a result of new residents[17].

3.3 Human activity can affect birds either directly (e.g. through causing them to flee) or indirectly (e.g. through damaging their habitat or reducing their fitness in less obvious ways e.g. stress). The most obvious direct effect is that of immediate mortality such as death by shooting, but human activity can also lead to much subtler behavioural (e.g. alterations in feeding behaviour, avoidance of certain areas and use of sub optimal areas etc.) and physiological changes (e.g. an increase in heart rate). While these are less noticeable, they might result in major population-level changes by altering the balance between immigration/birth and emigration/death[18].

3.4 Concern regarding the effects of disturbance on birds stems from the fact that they are expending energy unnecessarily and the time they spend responding to disturbance is time that is not spent feeding[19]. Disturbance therefore risks increasing energetic expenditure of birds while reducing their energetic intake, which can adversely affect the 'condition' and ultimately survival of the birds. Additionally, displacement of birds from one feeding site to others can increase the pressure on the resources available within the remaining sites, as they then must sustain a greater number of birds[20]. Moreover, the more time a breeding bird spends disturbed from its nest, the more its eggs are likely to cool and the more vulnerable they, or any nestlings, are to predators. Recreational effects on ground-nesting birds are particularly severe, with many studies concluding that urban sites support lower

[15] Liley D, Clarke R.T., Mallord J.W., Bullock J.M. 2006a. The effect of urban development and human disturbance on the distribution and abundance of nightjars on the Thames Basin and Dorset Heaths. Natural England / Footprint Ecology.
[16] Liley D., Clarke R.T., Underhill-Day J., Tyldesley D.T. 2006b. Evidence to support the appropriate Assessment of development plans and projects in south-east Dorset. Footprint Ecology / Dorset County Council.
[17] The RTPI report 'Planning for an Ageing Population'(2004) which states that 'From being a marginalised group in society, the elderly are now a force to be reckoned with and increasingly seen as a market to be wooed by the leisure and tourist industries. There are more of them and generally they have more time and more money.' It also states that 'Participation in most physical activities shows a significant decline after the age of 50. The exceptions to this are walking, golf, bowls and sailing, where participation rates hold up well into the 70s'.
[18] Riley, J. 2003. Review of Recreational Disturbance Research on Selected Wildlife in Scotland. Scottish Natural Heritage.
[19] Riddington, R. *et al*. 1996. The impact of disturbance on the behaviour and energy budgets of Brent geese. *Bird Study* 43:269-279
[20] Gill, J.A., Sutherland, W.J. & Norris, K. 1998. The consequences of human disturbance for estuarine birds. *RSPB Conservation Review* 12: 67-72

densities of key species, such as stone curlew and nightjar[21] [22]. Recreation disturbance in winter can be more adverse because birds are more vulnerable at this time of year due to food shortages.

3.5 Evidence in the literature suggests that the magnitude of disturbance clearly differs between different types of recreational activities. For example, dog walking leads to a significantly higher reduction in bird diversity and abundance than hiking[23]. Furthermore, key disturbance parameters, such as areas of influence and flush distance, are significantly greater for dog walkers than hikers[24]. Data on route length and the spatial mapping of routes indicate that key spatio-temporal features (e.g. the potentially impacted area of a site, how frequent or long activities are undertaken) are likely to differ between recreational activities. Overall, activity type is therefore a factor that should be taken into account in HRAs.

3.6 The potential for disturbance may be different in winter than in summer, in that there is often a smaller number of recreational users present on site. Furthermore, the impacts of disturbance at a population level may be reduced because birds are not breeding. However, recreational disturbance in winter may also be more impactful, because birds face seasonal food shortages and are likely to be sensitive to any nutritional loss. Therefore, the abandonment of suitable feeding areas due to disturbance can have serious consequences for their ability to find suitable alternative feeding sites.

3.7 Evans & Warrington[25] found that on Sundays total waterbird numbers (including shovelers and gadwalls) were 19% higher on Stocker's Lake LNR in Hertfordshire and attributed this to observed greater recreational activity on surrounding water bodies at weekends relative to weekdays displacing birds into the LNR. However, in this study, recreational activity was not quantified in detail, nor were individual recreational activities evaluated separately.

3.8 Tuite et al[26] used a large (379 sites), long-term (10-year) dataset (September – March species counts) to correlate seasonal changes in wildfowl abundance with the presence of various recreational activities. They determined that shovelers was one of the most sensitive species to recreational activities, such as sailing, windsurfing and rowing. Studies on recreation in the Solent have established that human leisure activities cause direct disturbance to wintering waterfowl populations[27] [28].

3.9 A study on recreational disturbance on the Humber[29] assesses different types of noise disturbance on waterfowl referring to studies relating to aircraft (see Drewitt 1999[30]), traffic (Reijnen, Foppen, & Veenbaas 1997)[31], dogs (Lord, Waas, & Innes 1997[32]; Banks & Bryant 2007[33]) and machinery (Delaney et al. 1999; Tempel & Gutierrez 2003). These studies identified that there is still relatively little work on the effects of different types of water-based craft and the impacts from jet skis, kite surfers, windsurfers etc. (see Kirby et al. 2004[34] for a review). In very general terms, both distance from the source of disturbance and the scale of the disturbance (noise level, group size) will both influence the

[21] Clarke R.T., Liley D., Sharp J.M., Green R.E. 2013. Building development and roads: Implications for the distribution of stone curlews across the Brecks. PLOS ONE. doi:10.1371/journal.pone.0072984.
[22] Liley D., Clarke R.T. 2003. The impact of urban development and human disturbance on the numbers of nightjar *Caprimulgus europaeus* on heathlands in Dorset, England. Biological Conservation 114: 219-230.
[23] Banks P.B., Bryant J.Y. 2007. Four-legged friend or foe? Dog walking displaces native birds from natural areas. Biology Letters 3: 14pp.
[24] Miller S.G., Knight R.L., Miller C.K. 2001. Wildlife responses to pedestrians and dogs. 29: 124-132.
[25] Evans, D.M. & Warrington, S. 1997. The effects of recreational disturbance on wintering waterbirds on a mature gravel pitlake near London. International Journal of Environmental Studies 53: 167-182
[26] Tuite, C.H., Hanson, P.R. & Owen, M. 1984. Some ecological factors affecting winter wildfowl distribution on inland waters in England and Wales and the influence of water-based recreation. *Journal of Applied Ecology* 21: 41-62
[27] Footprint Ecology. 2010. Recreational Disturbance to Birds on the Humber Estuary
[28] Footprint Ecology, Jonathan Cox Associates & Bournemouth University. 2010. Solent disturbance and mitigation project – various reports.
[29] Helen Fearnley Durwyn Liley and Katie Cruickshanks (2012) Results of Recreational Visitor Survey across the Humber Estuary produced by Footprint Ecology
[30] Drewitt, A. (1999) Disturbance effects of aircraft on birds. English Nature, Peterborough.
[31] Reijnen, R., Foppen, R. & Veenbaas, G. (1997) Disturbance by traffic of breeding birds: evaluation of the effect and considerations in planning and managing road corridors. Biodiversity and Conservation, 6, 567-581.
[32] Lord, A., Waas, J.R. & Innes, J. (1997) Effects of human activity on the behaviour of northern New Zealand dotterel Charadrius obscurus aquilonius chicks. Biological Conservation, 82,15-20.
[33] Banks, P.B. & Bryant, J.V. (2007) Four-legged friend of foe? Dog-walking displaces native birds from natural areas. Biology Letters, 3, 611-613.
[34] Kirby, J.S., Clee, C. & Seager, V. (1993) Impact and extent of recreational disturbance to wader roosts on the Dee estuary: some preliminary results. Wader Study Group Bulletin, 68, 53-58.

response (Delaney et al. 1999[35]; Beale & Monaghan 2005[36]). On UK estuaries and coastal sites, a review of WeBS data showed that, among the volunteer WeBS surveyors, driving of motor vehicles and shooting were the two activities most perceived to cause disturbance (Robinson & Pollitt 2002)[37].

3.10 Disturbing activities present themselves on a continuum. Generally, activities that involve irregular, infrequent and loud noise events, movement or vibration are likely to be the most disturbing. For example, the presence of dogs around waterbodies generate substantial disturbance due the areas accessed and their impact on bird behaviour. Birds are least likely to be disturbed by activities that involve regular, frequent, predictable and quiet patterns of sound, movement or vibration. The further any activity is from the birds, the less likely it is to result in disturbance. The factors that determine species responses to disturbance include species sensitivity, timing/duration of the recreational activity and the distance between source and receptor of disturbance.

3.11 The main impacts of recreational pressure will be felt around Chichester and Langstone Harbours SPA/SAC/Ramsar, Solent Maritime SAC, and Pagham Harbour SPA and Ramsar. Bird disturbance is a known current impact on the European sites around the Solent coast. Bird Aware[38] detail that over 52 million visits are made to the Solent coast each year by the 1 million people who live within 5.6km of the Solent and the population increases year on year, resulting in a busier coast, higher disturbance and more frequent and greater impacts on the birds. The Chichester and Langstone Harbours SPA/Ramsar and Solent Maritime SAC make up part of the mosaic of habitats of the Bird Aware Solent Region. The impacts of new residential and tourist development within the Chichester and Langstone Harbours SPA/Ramsar and Solent Maritime SAC are mitigated through the Solent Recreation Mitigation Strategy[39] created by Bird Aware and the Partnership for Urban South Hampshire (PUSH), with effects on Pagham Harbour mitigated through a joint scheme with the Arun District Council[40]. All three European sites will be discussed further with regards to recreational pressure in further chapters.

Background to Water Quality

3.12 The quality of the water that feeds European sites is an important determinant of the nature of their habitats and the species they support. Poor water quality can have a range of environmental impacts:

- At high levels, toxic chemicals and metals can result in immediate death of aquatic life, and can have detrimental effects even at lower levels, including increased vulnerability to disease and changes in wildlife behaviour.
- Eutrophication, the enrichment of plant nutrients in water, increases plant growth and consequently results in oxygen depletion. Algal blooms, which commonly result from eutrophication, increase turbidity and decrease light penetration. The decomposition of organic wastes that often accompanies eutrophication deoxygenates water further, augmenting the oxygen depleting effects of eutrophication. In the marine environment, nitrogen is the growth limiting plant nutrient and so eutrophication is associated with discharges containing available nitrogen.
- Some pesticides, industrial chemicals, and components of sewage effluent are suspected to interfere with the functioning of the endocrine system, possibly having negative effects on the reproduction and development of aquatic life.

3.13 The main risk associated with the Chichester Local Plan is the discharge of treated sewage effluent from Wastewater Treatment Works (WwTWs) serving the Plan area. This could increase the nutrient concentrations in the water feeding European Sites that are hydrologically linked to waterbodies that receive treated wastewater, such as Chichester & Langstone Harbours SPA/Ramsar site.

[35] Delaney, D.K., Grubb, T.G., Beier, P., Pater, L.L.M. & Reiser, H. (1999) Effects of Helicopter Noise on Mexican Spotted Owls. The Journal of Wildlife Management, 63, 60-76.
[36] Beale, C.M. & Monaghan, P. (2005) Modeling the Effects of Limiting the Number of Visitors on Failure Rates of Seabird Nests. Conservation Biology, 19, 2015-2019.
[37] Robinson, J.A. & Pollitt, M.S. (2002) Sources and extent of human disturbance to waterbirds in the UK: an analysis of Wetland Bird Survey data, 1995/96 to 1998/99: Less than 32% of counters record disturbance at their site, with differences in causes between coastal and inland sites. Bird Study, 49, 205.
[38] Bird disturbance - Bird Aware Solent [Accessed 24/11/2022]
[39] Solent-Recreation-Mitigation-Strategy-December-2017.pdf (portsmouth.gov.uk) [Accessed 24/11/2022]
[40] Appendix 1 Outline joint scheme of mitigation.pdf (moderngov.co.uk) [Accessed 24/11/2022]

Background to Nutrient Neutrality

3.14 Nutrient neutrality has become an issue in many areas of the country, such as the Solent, Somerset Levels, the Wye catchment in Herefordshire, the Camel catchment in Cornwall, and the Stour catchment in Kent.

3.15 Within the Solent catchment, the rich intertidal mudflats, saltmarsh, shingle beaches and adjacent coastal habitats, including grazing marsh, reedbeds and damp woodland, support nationally and internationally important numbers of migratory and over-wintering waders and waterfowl such as ringed plover and sandwich terns, as well as important breeding gull and tern populations. Increased levels of nitrogen and phosphorus entering aquatic environments via surface water and groundwater can severely threaten these sensitive habitats and species within the SPA. The elevated levels of nutrients can cause eutrophication, leading to algal blooms which disrupt normal ecosystem function and cause major changes in the aquatic community. These algal blooms can result in reduced levels of oxygen within the water, which in turn can lead to the death of many aquatic organisms including invertebrates and fish.

3.16 Ultimately the issue of nutrient neutrality stems from the ruling of the European Court of Justice (ECJ) in combined cases C-293/17 and C-294/17 (the Dutch Nitrogen case). That judgment was about nitrogen from atmosphere but in the process of making their ruling the judgment refined the definition of plans and projects to include operations such as agriculture, confirming that agricultural inputs of nutrients (either from atmosphere or runoff) need to be covered in the 'in combination' requirements of the HRA process. This is significant because the traditional assessment process as applied for example in the Environment Agency Review of Consents programme distinctly separates treated wastewater from agricultural discharge, largely because the latter is effectively unconsented [diffuse] and outside the remit of the Environment Agency.

3.17 In addition, the ruling reaffirmed that if a European protected nature conservation site is in a deteriorating condition (such as due to excess nutrient levels that may also be forecast to increase) there are very limited circumstances under which further discharges of nutrients to a site can legally be permitted. This is covered in paragraph 79 of Advocate-General Kokott's opinion, written to inform the court: '*Where total damage is reduced, but the integrity of the protected site concerned is nevertheless adversely affected* [by which she means where the total nitrogen deposition still exceeds the critical load], *Article 6(3) of the Habitats Directive does not in any case permit any additional damage of this kind*'.

3.18 As a result, in the absence of any empirically derived threshold by which additional aquatic inputs of nitrogen and phosphorus can be deemed nugatory or de minimis, it must be concluded that new development within the Solent catchment could increase nitrogen and phosphate deposition into the protected sites above consented levels and thus interfere with the ability of the site to achieve its conservation objectives and thus the integrity of the European protected nature conservation site. This is relevant because under Regulation 63 of the Conservation of Habitats and Species Regulations 2017 (as amended) a local planning authority (competent authority) cannot legally consent a plan or project that will have an adverse effect on the integrity of any European protected nature conservation site.

3.19 The potential impact of increased nutrient loading resulting from Local Plans is determined using nutrient neutrality calculations. A calculation methodology covering both nitrogen and phosphorus has been developed by Natural England, using the most up-to-date scientific evidence base at the time of publication. This has been published as the 'Nutrient Budget Calculator Guidance Document' (latest version March 2022).

3.20 While a competent authority such as Chichester District Council is not obliged to follow Natural England's advice, as set out in the court ruling in R (Hart District Council) v Secretary of State for Communities and Local Government [2008], it is expected to give 'considerable weight' to Natural England's opinion on HRA matters.

Background to Water Quantity, Level and Flow

3.21 The unique nature of wetlands combines shallow water, high levels of nutrients and high primary productivity. These conditions are ideal for the growth of organisms at the basal level of food webs,

which feed many species of birds, mammals, fish and amphibians. Overwintering and migrating wetland bird species are particularly reliant on these food sources, as they need to build up enough nutritional reserves to sustain their long migration routes.

3.22 Maintaining a steady water supply is of critical importance for many hydrologically dependent SPAs, SACs and Ramsars. For example, in many wetlands winter flooding is essential for sustaining a variety of foraging habitats for SPA / Ramsar wader and waterbird species. However, different species vary in their requirements for specific water levels. Splash and / or shallow flooding is required to provide suitable feeding areas and roosting sites for ducks and waders. In contrast, deeper flooding is essential to provide foraging habitats for Bewick's swans and other ducks.

3.23 Wetland habitats (and thus the fauna they support) rely on hydrological connections with other surface waters, such as rivers, streams and lakes. A constant supply of water is fundamental to maintaining the ecological integrity of sites. However, while the natural fluctuation of water levels within narrow limits is desirable, excess or too little water supply might cause the water level to be outside of the required range of qualifying birds, invertebrate or plant species. This might lead to the loss of the structure and functioning of wetland habitats. There are two mechanisms through which urban development might negatively affect the water level in European Sites:

- The supply of new housing with potable water will require increased abstraction of water from surface water and groundwater bodies. Depending on the level of water stress in the geographic region, this may reduce the water levels in European Sites sharing the same catchment.
- The proliferation of impermeable surfaces in urban areas increases the volume and speed of surface water runoff. As traditional drainage systems often cannot cope with the volume of stormwater, sewer overflows are designed to discharge excess water directly into watercourses. Often this pluvial flooding results in downstream inundation of watercourses and the potential flooding of wetland habitats.

3.24 Within Portsmouth Water's area of supply development and population growth are allowed for in the Company's Water Resource Management Plan but falling per capita consumption and falling commercial demand means that overall demand is not increasing. Abstraction has fallen by 20% since the 1980's and Portsmouth Water has no intention of applying for additional licences.

3.25 The Local Plan area is supplied with water from the Environment Agency Arun and Western Streams catchment, which currently assesses groundwater availability as being 'restricted' in terms of supplies from the Chichester chalk. Freshwater flows into Chichester Harbour arise from the Chichester Rifes - the River Lavant, River Ems, Fishbourne Springs, Bosham Stream, Cutmill Creek, Ham Brook, and the springs at Warblington. The Habitats Directive (HD) review of consents investigated the impact of abstraction on freshwater flows to the SPA and the abstraction management strategy noted that any new licence would need to consider impacts on this conservation site. Within the Local Plan area two water companies are operational in terms of supply:

- Portsmouth Water supplies Chichester, East Wittering, Southbourne, Tangmere and Selsey via their Chichester and Bognor Regis resources zone. Portsmouth Water's licences in the Chichester area are now fully compliant with the Habitats Regulations. The only outcome from the WFD investigations in this area is to consider increased augmentation of the River Ems. This scheme is in the EA's National Environment Programme and has been included in the Company's Business Plan.
- Southern Water supplies the north of the plan area from their Sussex North Water Resource Zone. Within the Draft Water Resources Management Plan 2024[41] it states that as a result of an integrity assessment for the WRMP24 Southern Water can now supply 29.4 million litres per day (Ml/d) against a total potential dry year demand of 28.7 Ml/d, meaning they can guarantee customers remain in supply while work is being carried out at the Weir Wood reservoir.

3.26 Portsmouth Water has confirmed that overall water demand is not increasing despite increased populations and they do not intend to apply for additional licences.

3.27 Part of the northern area of Chichester District is supplied by Southern Water who have an abstraction at Pulborough near Arun Valley SAC/SPA/Ramsar site. The Site Improvement Plans for Arun Valley SAC/SPA/Ramsar identifies inappropriate water levels as threats to the respective sites. Increases to

[41] 6177_dWRMP_Sections_1_3_v1.7.indd (southernwater.co.uk) [Accessed 22/12/2022]

the quantity and rate of water delivery can result in summer flooding and prolonged / deeper winter flooding. This in turn results in the reduction of feeding and roosting sites for birds and be harmful to the little whirlpool ram's-horn snail, which has very specific water level requirements.

3.28 The emerging Local Plan could result in changes to the water quantity, level and flow in the catchment of the River Arun European sites if it required additional abstraction from such sites or the continuance of existing damaging abstraction. This could alter the water level within the designated sites themselves with potential cascading effects on qualifying species. Overall, the following European Sites are considered to be sensitive to changes in water quantity, level and flow and are taken forward to the following chapters of the HRA:

- Arun Valley SAC/SPA/Ramsar site

Background to Loss or Degradation of Functionally Linked Habitat

3.29 While most European sites have been geographically defined to encompass the key features that are necessary for coherence of their structure and function, and the support of their qualifying features, this is not necessarily the case. A diverse array of qualifying species including birds, bats and amphibians are not always confined to the boundary of designated sites.

3.30 For example, the highly mobile nature of both wader and waterfowl species implies that areas of habitat of crucial importance to the maintenance of their populations are outside the physical limits of European sites. Despite not being designated, these habitats are integral to the maintenance of the structure and function of the designated site and, therefore, land use plans that may affect such functionally linked habitat require further assessment.

3.31 There is now an abundance of authoritative examples of HRA cases on plans affecting bird populations, where Natural England recognised the potential importance of functionally linked land[42]. For example, bird surveys in relation to a previous HRA established that approximately 25% of the golden plover population in the Somerset Levels and Moors SPA were affected while on functionally linked land, and this required the inclusion of mitigation measures in the relevant plan policy wording. Another important case study originates from the Mersey Estuary SPA / Ramsar, where adjacently located functionally linked land had a peak survey count of 108% of the 5 year mean peak population of golden plover. Similar to the above example, this led to considerable amendments in the planning proposal to ensure that the site integrity was not adversely affected.

3.32 Generally, the identification of an area as functionally linked habitat is not always a straightforward process. The importance of non-designated land parcels may not be apparent and require the analysis of existing data sources to be firmly established. In some instances, data may not be available at all, requiring further survey work.

Coastal Bird Sites

3.33 Chichester and Langstone Harbours SPA and Ramsar site and Pagham Harbour SPA and Ramsar site are notified partly for their over-wintering populations of brent goose (*Branta bernicla bernicla*). However, studies have identified that many feeding sites for this species around the Solent fall outside of the statutory nature conservation site boundaries. The majority of brent goose feeding sites are amenity/recreation grasslands with little intrinsic nature conservation interest, and therefore are vulnerable to loss or damage from development. This also applies to some high tide wader roosts in the Solent. This issue is addressed by the Solent Recreation Mitigation Strategy[43], and specific mitigation guidance is provided in the Solent Waders and Brent Goose Strategy: Interim Guidance on Mitigation and Off-setting Requirements[44]. As part of this Strategy, a network of terrestrial non-

[42] Chapman C & Tyldesley D. 2016. Functional linkage: How areas that are functionally linked to European sites have been considered when they may be affected by plans and projects – A review of authoritative decisions. Natural England Commissioned Reports 207: 73pp.
[43] Bird Aware Solent. (2017) Solent Recreation Mitigation Strategy. December 2017.
[44] Solent Waders and Brent Goose Strategy Steering Group. (2018) Solent Waders and Brent Goose Strategy: Interim Guidance on Mitigation and Off-setting Requirements. March 2018.

designated sites used by brent goose and waders has been identified, in which sites are categorised according to their importance to brent goose and wader populations using the following system:

- **Core Areas** – sites identified as having a network value and/or have a maximum Brent goose and/or wader count of at least 1000 and/or have the maximum score of 7 in at least three metrics;
- **Primary Areas** – sites with a score of 3-6;
- **Secondary Support Areas** – sites with a score of 1-2 and/or have a maximum bird count of at least 100 for brent goose or any wader species;
- **Low Use** – sites in which low numbers of brent goose and/or waders have been recorded (score 0); and
- **Candidate Sites** – sites in which high numbers of brent goose and/or waders have been recorded (at least 100 birds) and/or a score of at least 3 but have fewer than three records in total.

Arun Valley SPA and Ramsar

3.34 Over winter the Arun Valley supports 115 Bewick's swans, representing approximately 1.6% of Britain's migratory population[45]. The Bewick's swan is a highly migratory bird species that spends summer in Russia. However, during the autumn months these swans migrate to northern Europe where they feed upon a diet of grasses, sedges and aquatic plants. The Arun Valley consists of mixed wet grasslands that provides optimal over wintering habitat for these species. In addition, much of the wider surrounding area of Arun consists of floodplain grazing marsh due to the periodic flooding of the River Arun; also supporting suitable over wintering grounds. The Bewick's swan has seen recent declines of 27% from 1995 to 2005[46] with national trends indicating continual declines. Preservation of significant habitat for Bewick's swan, whether it occurs within or outside the SPA and Ramsar site boundary is therefore essential.

3.35 The Arun Valley SPA and Ramsar site is designated for its wintering population of Bewick's swan. It is widely accepted[47] that Bewick's swans frequently feed on suitable farmland up to 5km from the designated site. As such, suitable fields within 5km of the SPA could constitute important supporting habitat if they support a large enough percentage of the SPA population on a regular basis. A small part of the north east of the Chichester Local Plan area lies within 5km of Arun Valley SPA/Ramsar site.

3.36 The species of waterfowl that contribute to the designated bird assemblage of the SPA are not identified by the SPA citation. The Supplementary Advice on the Conservation Objectives for the SPA states that in addition to Bewick swan key assemblage species comprise: wigeon, teal, shoveler, pintail, lapwing, ruff, black-tailed godwit and green sandpiper[48].

3.37 Most of these remaining avian features of the Arun Valley SPA and Ramsar site (pintail, ruff, shoveler, teal and widgeon), primarily frequent waterbodies such as lakes, and will be found foraging and roosting around these waterbodies rather than within arable parcels of land. Lapwing, black-tailed godwit and green sandpiper may use farmland. In broad terms if fields are suitable for foraging non-breeding Bewick swan they are also likely to be suitable for these other species.

3.38 Within the Local Plan HRA for adjacent Arun District (2017) two impact risk zones were identified[49]:

- **Impact Risk Zone 1** – this is a core area where there is good evidence/high probability of use by SPA bird species[50]. As such comprehensive ornithological studies must be conducted within proposed development sites before planning permission is granted.

[45] JNCC (2001) SPA Description: Arun Valley (www.jncc.defra.gov.uk)
[46] Rees, E.C. & Beekman, J. Submitted. Bewick's Swan: a population in decline. British Birds.
[47] Whilst there is no formal publication confirming this, from discussions with the Royal Society for the Protection of Birds (RSPB), Wildfowl and Wetland Trust (WWT) and Natural England (NE) on other projects it has been established that Bewick's Swan often use habitat up to 5km from the designated site for foraging in the winter months. As such 5km has been defined as a zone within which likely significant effects could result from loss of supporting habitat.
[48] http://publications.naturalengland.org.uk/publication/4567444756627456
[49] Urban Edge Environmental Consulting (2016) Habitats Regulations Assessment for the Arun Local Plan: Supplimentary Work. Stage 2 Report: Screening for Likely Significant Effects. Available at: download.cfm (arun.gov.uk) [accessed 17/03/2021]
[50] https://data.gov.uk/dataset/5ae2af0c-1363-4d40-9d1a-e5a1381449f8/sssi-impact-risk-zones [Accessed: 20/09/2018]

- **Impact Risk Zone 2** – this is a 500m buffer beyond zone 1 and is where functionally linked habitat is present and loss of such could therefore impact over wintering bird populations.

The Mens SAC, Ebernoe Common SAC and Singleton & Cocking Tunnels SAC

3.39 Ebernoe Common SAC and The Mens SAC and Singleton & Cocking Tunnels SAC are designated for their populations of rare bats; Bechstein's and barbastelle. Bats are not expected to be confined to the boundaries of European Sites and are anticipated to forage within the wider vicinity of their Core Sustenance Zone (CSZ). For example, in a 2001 study, female adult Bechstein's bats regularly undertook commuting distances of up to 1km[51]. A second radio-tracking study in 2002 of Ebernoe Common SAC, showed that the maximum distance travelled by tagged individuals was 1,407m, with an average of 735.7m[52]. For Bechstein's it is reasonable to assume that the core foraging areas around the Ebernoe Common SAC, The Men's SAC and Singleton & Cocking Tunnels SAC, for which they are designated, is likely to be within c. 1km of each site boundary.

3.40 Barbastelle bats are known to travel substantial distances from their roots to feeding sites. A study on barbastelle bats determined that home range distances show considerable inter-individual differences, with bats traveling between 1 and 20km to reach their foraging areas[53]. In 2016, the Bat Conservation Trust published guidelines on how to determine CSZs for bats and highlighted that barbastelle bats have a mean maximum CSZ of 6.47km[54].

3.41 As a precaution, Natural England and the South Downs National Park Authority have since agreed a Sussex Bat Protocol[55], which identifies a maximum 12km zone around the Sussex bat SACs (Ebernoe Common SAC, The Mens SAC) in which HRAs investigating habitat fragmentation are required. This is based on the furthest distance from the two SACs at which foraging bats were radio-tracked. Singleton and Cocking Tunnels are mainly hibernation roosts, and therefore maternity roosts, as well as the flightlines connecting these roosts outside of the SAC can also be functionally linked. Some maternity roosts have been identified up to 12km from the SAC including at Goodwood and Slindon. The 12 km Zone therefore also applies to Singleton and Cocking Tunnels SAC.

3.42 The protocol identifies two key impact zones surrounding the bat SACs as follows:

- 6.5km: Key conservation area – all impacts assessed;
- 12km: Wider conservation area – significant impacts or severance to flightlines to be considered

3.43 The 6.5 km includes the key conservation area in which all impacts must be considered as habitats within this zone are considered critical for sustaining the populations of bats within the SACs. The north east part of Chichester Local Plan area lies close to The Mens SAC and Ebernoe Common SAC while both the north east part and the main southern part of the Local Plan area lies within 12km of Singleton & Cocking Tunnels SAC.

3.44 Therefore, the following European Sites are taken forward into the following chapters:

- Coastal Bird Sites
- Arun Valley SPA / Ramsar
- The Mens SAC
- Ebernoe Common SAC

[51] Kerth G., Wagner M. & Koenig B. 2001. Roosting together, foraging apart: Information transfer about food is unlikely to explain sociality in female Bechstein's bats (*Myotis bechsteinii*). Behavioural Ecology and Sociobiology 50: 283-291.
[52] Fitzsimmons P., Hill D., Greenaway F. (2002). Patterns of habitat use by female Bechstein's bats (*Myotis bechsteinii*) from a maternity colony in a British woodland.
[53] Zeale M.R.K., Davidson-Watts I. & Jones G. (2012). Home range use and habitat selection by barbastelle bats (*Barbastella barbastellus*): Implications for conservation. Journal of Mammalogy 93: 1110-1118.
[54] Bat Conservation Trust. (2016). Coe Sustenance Zones: Determining zone size. Available at https://cdn.bats.org.uk/pdf/Resources/Core_Sustenance_Zones_Explained_04.02.16.pdf?mtime=20190219173135 [Accessed on the 14/10/2019].
[55] South Downs National Park Authority/ Natural England (2017). Sussex Bat Special Area of Conservation Planning and Landscape Scale Enhancement Protocol. Final Draft

- Singleton & Cocking Tunnels SAC

Background to Atmospheric Pollution

3.45 The main pollutants of concern for European sites are oxides of nitrogen (NOx), ammonia (NH_3) and sulphur dioxide (SO_2) and are summarised in Table 2. Ammonia can have a directly toxic effect upon vegetation, particularly at close distances to the source such as near road verges[56]. NOx can also be toxic at very high concentrations (far above the annual average critical level). However, in particular, high levels of NOx and NH_3 are likely to increase the total N deposition to soils, potentially leading to deleterious knock-on effects in resident ecosystems. Increases in nitrogen deposition from the atmosphere is widely known to enhance soil fertility and to lead to eutrophication. This often has adverse effects on the community composition and quality of semi-natural, nitrogen-limited terrestrial and aquatic habitats[57] [58].

Table 2: Main sources and effects of air pollutants on habitats and species[59]

Pollutant	Source	Effects on habitats and species
Sulphur Dioxide (SO_2)	The main sources of SO_2 are electricity generation, and industrial and domestic fuel combustion. However, total SO_2 emissions in the UK have decreased substantially since the 1980's. Another origin of sulphur dioxide is the shipping industry and high atmospheric concentrations of SO_2 have been documented in busy ports. In future years shipping is likely to become one of the most important contributors to SO_2 emissions in the UK.	Wet and dry deposition of SO_2 acidifies soils and freshwater and may alter the composition of plant and animal communities. The magnitude of effects depends on levels of deposition, the buffering capacity of soils and the sensitivity of impacted species. However, SO_2 background levels have fallen considerably since the 1970's and are now not regarded a threat to plant communities. For example, decreases in Sulphur dioxide concentrations have been linked to returning lichen species and improved tree health in London.
Acid deposition	Leads to acidification of soils and freshwater via atmospheric deposition of SO_2, NOx, ammonia and hydrochloric acid. Acid deposition from rain has declined by 85% in the last 20 years, which most of this contributed by lower sulphate levels. Although future trends in S emissions and subsequent deposition to terrestrial and aquatic ecosystems will continue to decline, increased N emissions may cancel out any gains produced by reduced S levels.	Gaseous precursors (e.g. SO_2) can cause direct damage to sensitive vegetation, such as lichen, upon deposition. Can affect habitats and species through both wet (acid rain) and dry deposition. The effects of acidification include lowering of soil pH, leaf chlorosis, reduced decomposition rates, and compromised reproduction in birds / plants. Not all sites are equally susceptible to acidification. This varies depending on soil type, bed rock geology, weathering rate and buffering capacity. For example, sites with an underlying geology of granite, gneiss and quartz rich rocks tend to be more susceptible.

[56] http://www.apis.ac.uk/overview/pollutants/overview_NOx.htm.
[57] Wolseley, P. A.; James, P. W.; Theobald, M. R.; Sutton, M. A. **2006.** Detecting changes in epiphytic lichen communities at sites affected by atmospheric ammonia from agricultural sources. Lichenologist 38: 161-176
[58] Dijk, N. **2011.** Dry deposition of ammonia gas drives species change faster than wet deposition of ammonium ions: evidence from a long-term field manipulation Global Change Biology 17: 3589-3607
[59] Information summarised from the Air Pollution Information System (http://www.apis.ac.uk/)

Pollutant	Source	Effects on habitats and species
Ammonia (NH_3)	Ammonia is a reactive, soluble alkaline gas that is released following decomposition and volatilisation of animal wastes. It is a naturally occurring trace gas, but ammonia concentrations are directly related to the distribution of livestock. Ammonia reacts with acid pollutants such as the products of SO_2 and NO_X emissions to produce fine ammonium (NH_4+) - containing aerosol. Due to its significantly longer lifetime, NH_4+ may be transferred much longer distances (and can therefore be a significant trans-boundary issue). While ammonia deposition may be estimated from its atmospheric concentration, the deposition rates are strongly influenced by meteorology and ecosystem type.	The negative effect of NH_4+ may occur via direct toxicity when uptake exceeds detoxification capacity and via N accumulation. Its main adverse effect is eutrophication, leading to species assemblages that are dominated by fast-growing and tall species. For example, a shift in dominance from heath species (lichens, mosses) to grasses is often seen. As emissions mostly occur at ground level in the rural environment and NH_3 is rapidly deposited, some of the most acute problems of NH_3 deposition are for small relict nature reserves located in intensive agricultural landscapes.
Nitrogen oxides (NO_x)	Nitrogen oxides are mostly produced in combustion processes. Half of NO_X emissions in the UK derive from motor vehicles, one quarter from power stations and the rest from other industrial and domestic combustion processes. Nitrogen oxides have been consistently falling for decades due to a combination of coal fired power station closures, abatement of other combustion point sources and improved vehicle emissions technology. They are expected to continue to fall over the plan period.	Direct toxicity effects of gaseous nitrates are likely to be important in areas close to the source (e.g. roadside verges). A critical level of NOx for all vegetation types has been set to 30 ug/m^3. Deposition of nitrogen compounds (nitrates (NO_3), nitrogen dioxide (NO_2) and nitric acid (HNO_3)) contributes to the total nitrogen deposition and may lead to both soil and freshwater acidification. In addition, NO_x contributes to the eutrophication of soils and water, altering the species composition of plant communities at the expense of sensitive species.
Nitrogen deposition	The pollutants that contribute to the total nitrogen deposition derive mainly from oxidized (e.g. NO_X) or reduced (e.g. NH_3) nitrogen emissions (described separately above). While oxidized nitrogen mainly originates from major conurbations or highways, reduced nitrogen mostly derives from farming practices. The N pollutants together are a large contributor to acidification (see above).	All plants require nitrogen compounds to grow, but too much overall N is regarded as the major driver of biodiversity change globally. Species-rich plant communities with high proportions of slow-growing perennial species and bryophytes are most at risk from N eutrophication. This is because many semi-natural plants cannot assimilate the surplus N as well as many graminoid (grass) species. N deposition can also increase the risk of damage from abiotic factors, e.g. drought and frost.
Ozone (O_3)	A secondary pollutant generated by photochemical reactions involving NOx, volatile organic compounds (VOCs) and sunlight. These precursors are mainly	Concentrations of O_3 above 40 ppb can be toxic to both humans and wildlife and can affect buildings.

Pollutant	Source	Effects on habitats and species
	released by the combustion of fossil fuels (as discussed above). Increasing anthropogenic emissions of ozone precursors in the UK have led to an increased number of days when ozone levels rise above 40ppb ('episodes' or 'smog'). Reducing ozone pollution is believed to require action at international level to reduce levels of the precursors that form ozone.	High O_3 concentrations are widely documented to cause damage to vegetation, including visible leaf damage, reduction in floral biomass, reduction in crop yield (e.g. cereal grains, tomato, potato), reduction in the number of flowers, decrease in forest production and altered species composition in semi-natural plant communities.

3.46 Sulphur dioxide emissions overwhelmingly derive from power stations and industrial processes that require the combustion of coal and oil, as well as (particularly on a local scale) shipping[60]. Ammonia emissions originate from agricultural practices[61], with some chemical processes and some road traffic (notably petrol cars) also making notable contributions. As such, it is unlikely that material increases in SO_2 emissions will be associated with the emerging Local Plan.

3.47 In contrast, NOx emissions are dominated by the output of vehicle exhausts (more than half of all emissions). A 'typical' housing development will contribute by far the largest portion to its overall NOx footprint (92%) through its associated road traffic. Other sources, although relevant, are of minor importance (8%) in comparison[62]. The emerging Local Plan, which will result in an increase in Chichester District's population, can therefore be reasonably expected to increase emissions of NOx and ammonia through an increase in vehicular traffic.

3.48 According to the World Health Organisation, the critical NOx concentration (critical threshold) for the protection of vegetation is 30 μgm^{-3}; the threshold for sulphur dioxide is 20 μgm^{-3}. In addition, ecological studies have determined 'critical loads'[63] of atmospheric nitrogen deposition (that is, NOx combined with ammonia NH_3).

3.49 According to the Department of Transport's Transport Analysis Guidance, beyond 200m, the contribution of vehicle emissions from the roadside to local pollution levels is insignificant[64] (Figure 3). This is therefore the distance that has been used throughout this HRA to identify major commuter routes along European Sites, which are likely to be significantly affected by development outlined in the Local Plan.

3.50 Overall, an increase in the net population and employment opportunities within Chichester Local Plan area will result in more inward and outward commuter traffic.

[60] http://www.apis.ac.uk/overview/pollutants/overview_SO2.htm.
[61] Pain, B.F.; Weerden, T.J.; Chambers, B.J.; Phillips, V.R.; Jarvis, S.C. 1998. A new inventory for ammonia emissions from U.K. agriculture. Atmospheric Environment 32: 309-313
[62] Proportions calculated based upon data presented in Dore CJ et al. 2005. UK Emissions of Air Pollutants 1970 – 2003. UK National Atmospheric Emissions Inventory. http://www.airquality.co.uk/archive/index.php
[63] The critical load is the rate of deposition beyond which research indicates that adverse effects can reasonably be expected to occur
[64] http://www.dft.gov.uk/webtag/documents/expert/unit3.3.3.php#013; accessed 12/05/2016

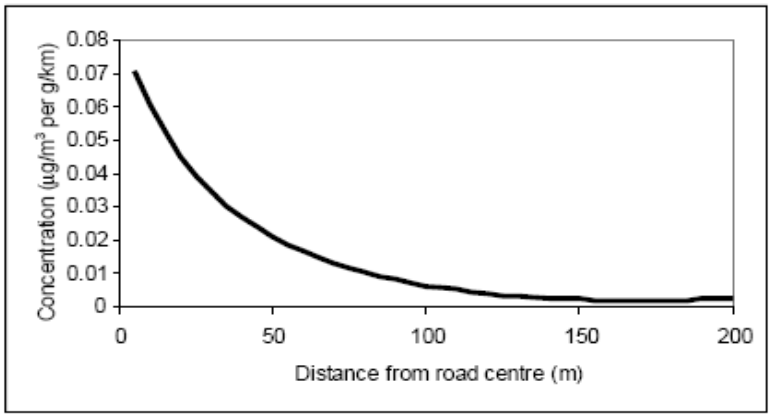


Figure 3: Traffic contribution to concentrations of pollutants at different distances from a road (Source: DfT[65])

3.51 The following European sites are located within 200m of a potentially affected road and have thus been subject to air quality assessment.

Table 3: European Sites Located within 200m of a Potentially Affected Road

European Site	Potentially Affected Road	Air Quality Affected Road Reference Code
Duncton to Bignore Escarpment SAC	A285	DNBG
Kingley Vale SAC	B2142	KGVE
Solent European Sites near Nutbourne	A259	CLSM2
Solent European sites near Bosham	A259	SOME
Solent European sites near Fishbourne	A259	CLSM3
Pagham Harbour SPA/Ramsar site	B2145	PGHR1
Ebernoe Common SAC	A283	EBCM
The Mens SAC	A272	MENS1 & MENS2
Butser Hill SAC	A3	BSHL
Solent European sites	A27 near A3(M) junction	CLSM1
Solent European sites	A27 west of A2030 and Farlington Marshes	SLDR

3.52 It is the above European sites identified in Table 3 that will be subject to an air quality assessment. Consideration was given to including Singleton & Cocking Tunnels SAC. However, the SAC consists of two railway tunnels which are not vegetated features and the SAC entrances lie nearly 200m from

[65] http://www.dft.gov.uk/ha/standards/dmrb/vol11/section3/ha20707.pdf; accessed 13/07/2018

the closest road at their closest point. Therefore, Singleton & Cocking Tunnels SAC has been scoped out of the assessment with regard to air quality.

Background to Coastal Squeeze

3.53 Rising sea levels can be expected to cause intertidal habitats (principally saltmarsh and mudflat) to migrate landwards. However, in built-up areas, such landward retreat is often rendered impossible due the presence of sea walls and other flood defences.

3.54 In addition, as development frequently takes place immediately behind the sea wall, flood defences often cannot be moved landwards to accommodate managed retreat of threatened habitats. The net result of this is that the quantity of saltmarsh and mudflat adjacent to built-up areas will progressively decrease as sea levels rise. This process is known as 'coastal squeeze'. In areas where sediment availability is reduced, the 'squeeze' also includes an increasingly steep beach profile and foreshortening of the seaward zones.

3.55 The North Solent (Selsey Bill to Hurst Spit) Shoreline Management Plan units for Chichester and Langstone Harbours indicate that there will be a combination of 'Hold the Line', 'Managed Realignment' and 'Adaptive Management' strategies[66]. An HRA of the SMP[67] indicated that Hold the Line will have no effect on habitats behind the defences, whilst Managed Realignment is likely to "*have a significant detrimental effect resulting in loss of designated terrestrial habitats including coastal grazing marsh, saline lagoons and grasslands*." Managed Realignment is proposed in the short term for part of Chichester Harbour. Although Hold the Line is the preferred approach for the majority of the shoreline, the SMP notes that further studies on Chichester and Langstone Harbours may lead to revision of this for significant lengths of shoreline in the inner harbours.

3.56 The South Downs (Beachy Head to Selsey Bill) SMP for areas fronting Pagham Harbour identifies a mix of Hold the Line and Managed Realignment strategies. The SMP states that a Managed Realignment strategy is being adopted to maintain the integrity of the harbour with its nature conservation value as a primary consideration.

3.57 In order to conclude that development in the Local Plan area would not lead to a significant adverse effect as a result of coastal squeeze, it will be necessary to conclude that the Local Plan would not require the SMP (or resulting Coastal Strategy) policies for the frontage to be altered and would not be situated in such as position as to require new defences in currently undefended parts of the coastline or locate development in areas planned for managed realignment in the SMP or the Environment Agency Regional Habitat Creation Programme.

[66] http://www.northsolentsmp.co.uk/ [Accessed: 12/10/2018]
[67] North Solent SMP Appendix J Appropriate Assessment (northsolentsmp.co.uk)

4. Likely Significant Effects Test Summary

Policies and Site Allocations

4.1 In the Likely Significant Effects Test undertaken in **Appendix A: Policy and Allocation Screening**, the following policies and site allocations could not be screened out in isolation:

- Policy S1: Spatial Development Strategy
- Policy H1: Meeting Housing Needs
- Policy H2: Strategic Locations / Allocations 2021 – 2039
- Policy H3: Non-Strategic Parish Housing Requirements 2021 – 2039
- Policy H11: Meeting Gypsies, Travellers and Travelling Showpeoples' Needs
    - Land at Cherry West
    - Land at Lakeside Barn
    - Tower View Nurseries
    - Greenacre
    - Sunrise Southbourne
    - The Stables on Bracklesham Lane
    - Five Paddocks Farm Bracklesham
- Policy H12: Intensification Sites
- Policy E1: Meeting Employment Land Needs
- Policy E3: Addressing Horticultural Needs
- Policy E5: Retail Strategy and New Development
- Policy A2: Chichester City – Strategic Housing Location
- Policy A15: Loxwood
- Policy A6: Land West of Chichester
- Policy A7: Land at Shopwyke (Oving Parish)
- Policy A8: Land East of Chichester
- Policy A9: Land at Westhampnett / North East Chichester
- Policy A5: Southern Gateway – Police Field, Kingsham Road
- Policy A4: Southern Gateway – Bus Station Depot and Basing Road Car Park
- Policy A11: Highgrove Farm, Bosham
- Policy A12: Chidham and Hambrook Parish
- Policy A13: Southbourne
- Policy A14: Land West of Tangmere

- Policy A16: Goodwood Motor Circuit and Airfield
- Policy A20: Land South of Bognor Road
- Policy A19: Land at Chichester Business Park, Tangmere
- Policy A21: Land East of Rolls Royce

4.2 The Likely Significant Effects Test identified that the following potential linking impact pathways could result in adverse effects on integrity of European sites, and as such will be subject to Appropriate Assessment in the following subsequent Chapters (Chapters 5 to 10):

- Water quality;
- Air quality;
- Recreational pressure;
- Loss of functionally linked supporting habitat;
- Urbanization; and
- Costal squeeze.

Down the Line Assessment

4.3 The Likely Significant Effects Test undertaken in **Appendix A: Policy & Allocation Screening** was able to screen out the following policies. This is because the policies did not allocate a location for development or a quantum of development. These policies are concerned with development management criteria to ensure appropriate development approved when planning applications are brought forward. Any planning applications being brought forward to be evaluated for compliance with these policies could potentially have likely significant effects but the policies themselves will not. Any such planning applications must still comply with the Habitats Regulations and would need to be screened individually to determine if the development would pose potential likely significant effect. Should there be potential likely significant effect these planning applications would require down the line assessment at a project level, this is discussed for each of the policies within the screening table in Appendix A. The policies for which this is the case are as follows:

- Policy H6: Custom and/or Self Build Homes
- Policy H7: Rural and First Homes Exception Sites
- Policy H8: Specialist Accommodation for Older People and those with Specialist Needs
- Policy H9: Accommodation for Agricultural, Horticultural and other Rural Workers
- Policy H13: Accommodation for Gypsies, Travellers and Travelling Showpeople
- Policy E2: Employment Development
- Policy E4: Horticultural Development
- Policy E8: Built Tourist and Leisure Development
- Policy E9: Caravan and Camping Sites
- Policy E10: Equestrian Development
- Policy T1: Transport Infrastructure
- Policy T2: Transport and Development
- Policy A3: Southern Gateway Development Principles
- Policy A17: Development within the Vicinity of Goodwood Motor Circuit and Airfield.
- Policy A18: Thorney Island

4.4 These policies are therefore screened out of further assessment within this HRA.

Summary

4.5 In summary, the focus of the Appropriate Assessment is therefore on the following pathways of impact:

- **Recreational pressure**
  - whether proposed housing sites are located within 5.6km of the Chichester and Langstone Harbours SPA/Ramsar site or the Medmerry realignment
  - whether proposed housing sites are located within 3.5km of Pagham Harbour SPA/Ramsar site.
- **Other forms of disturbance such as noise or lighting**
- **Nutrient neutrality & water neutrality**
  - Nutrient neutrality – in terms of whether individual sites present impact pathways (such as surface water runoff) to European sites, or are located within the catchment of WwTW that drain into Chichester Harbour where there are known nutrient impacts.
  - water neutrality – in terms of whether individual sites present impact pathways with regards to water neutrality on Arun Valley SAC/SPA
- **Loss of, or prevention of access to, functionally linked supporting habitat:**
  - Chichester and Langstone Harbours SPA/Ramsar site (including the Medmerry realignment);
  - Pagham Harbour SPA/Ramsar site;
  - Ebernoe Common SAC;
  - Singleton and Cocking Tunnels SAC; and,
  - The Mens SAC.
- **Atmospheric pollution:**
  - Duncton to Bignor Escarpment SAC
  - Kingley Vale SAC
  - Chichester and Langstone Harbours SPA/Ramsar site
  - Solent Maritime SAC
  - Pagham Harbour SPA/Ramsar site
  - Ebernoe Common SAC
  - The Mens SAC
  - Butser Hill SAC

5. Chichester and Langstone Harbours SPA and Ramsar Site/Solent Maritime SAC/Solent and Dorset Coast SPA[68]

Introduction

5.1 Chichester and Langstone Harbours SPA and Ramsar site encompasses two large sheltered estuarine basins: Langstone and Chichester Harbours on the Hampshire/Sussex border. The two harbours are separated by Hayling Island and meet at Langstone Bridge. The SPA is comprised of two Sites of Special Scientific Interest (SSSI): Chichester Harbour SSSI and Langstone Harbour SSSI.

5.2 Chichester Harbour and Langstone Harbour, along with the coastal waters between the two harbours, form part of the Solent Maritime SAC, along with Portsmouth Harbour SPA/Ramsar site and Solent & Southampton Water SPA/Ramsar site.

5.3 Chichester Harbour SSSI is a large estuarine basin within which extensive mud and sandflats are exposed at low tide. The site is of particular significance for wintering wildfowl and waders and also for breeding birds both within the Harbour and in the surrounding pastures and woodlands. There is also a wide range of habitats which have important plant communities.

5.4 Chichester Harbour and the adjoining Portsmouth and Langstone Harbours together form a single system which is among the ten most important intertidal areas for waders in Britain.

Chichester and Langstone Harbours SPA and Ramsar site

5.5 Features of European Interest[69] Chichester and Langstone Harbours SPA qualifies under Article 4.1 of the Birds Directive (79/409/EEC) by supporting populations of European importance of the following species listed on Annex I of the Directive

5.6 During the breeding season:

- Common Tern *Sterna hirundo*: 0.3% of the breeding population in Great Britain (5-year mean, 1992-1996);
- Sandwich Tern *Sterna sandvicensis*: 0.2% of the breeding population in Great Britain (5-year mean, 1993-1997); and
- Little Tern *Sternula albifrons*: 4.2% of the breeding population in Great Britain (5-year mean, 1992-1996).

5.7 Over winter:

- Bar-tailed Godwit *Limosa lapponica*: 3.2% of the wintering population in Great Britain (5-year peak mean 1991/92-1995/96).

5.8 This site also qualifies under Article 4.2 of the Directive (79/409/EEC) by supporting populations of European importance of the following migratory species:

5.9 Over winter:

[68] Note that this includes the Medmerry realignment, which although close to Pagham Harbour SPA/Ramsar site was created to compensate for coastal squeeze losses on the Solent & Southampton Water and Chichester & Langstone Harbours. In practice there is considerable overlap between the 5.6km zone from Medmerry, the 5.6km zone from Chichester Harbour and the 3.5km zone from Pagham Harbour.

[69] http://publications.naturalengland.org.uk/publication/5789102905491456 [Accessed: 15/10/2018]

- Pintail *Anas acuta*: 1.2% of the population in Great Britain (5-year peak mean 1991/92-1995/96);
- Shoveler *Anas clypeata*: 1% of the population in Great Britain (5-year peak mean 1991/92-1995/96);
- Teal *Anas crecca*: 0.5% of the population (5-year peak mean 1991/92-1995/96);
- Wigeon *Anas penelope*: 0.7% of the population in Great Britain (5-year peak mean 1991/92-1995/96);
- Turnstone *Arenaria interpres*: 0.7% of the population in Great Britain (5-year peak mean 1991/92-1995/96);
- Dark-bellied Brent Goose *Branta bernicla bernicla*: 5.7% of the population (5-year peak mean 1991/92-1995/96);
- Sanderling *Calidris alba*: 0.2% of the population (5-year peak mean 1991/92-1995/96);
- Dunlin *Calidris alpina alpina*: 3.2% of the population (5-year peak mean 1991/92-1995/96);
- Ringed Plover *Charadrius hiaticula*: 3% of the population in Great Britain (5-year peak mean 1991/92-1995/96);
- Red-breasted Merganser *Mergus serrator*: 3% of the population in Great Britain (5-year peak mean 1991/92-1995/96);
- Curlew *Numenius arquata*: 1.6% of the population in Great Britain (5-year peak mean 1991/92-1995/96);
- Grey Plover *Pluvialis squatarola*: 2.3% of the population (5-year peak mean 1991/92-1995/96);
- Shelduck *Tadorna tadorna*: 3.3% of the population in Great Britain (5-year peak mean 1991/92-1995/96); and
- Redshank *Tringa totanus*: 1% of the population (5-year peak mean 1991/92-1995/96).

5.10 The area also qualifies under Article 4.2 of the Directive (79/409/EEC) by supporting an internationally important assemblage of birds. Over winter, the area regularly supports 93,230 individual waterfowl (5-year peak mean 01/04/1998) including: Wigeon, Bar-tailed Godwit, Dark-bellied Brent Goose, Ringed Plover, Grey Plover, Dunlin, Redshank, Shelduck, Curlew, Teal, Pintail, Shoveler, Red-breasted Merganser, Sanderling and Turnstone.

Conservation Objectives[70]

5.11 '*With regard to the SPA and the individual species and/or assemblage of species for which the site has been classified (the 'Qualifying Features' listed below), and subject to natural change;*

5.12 *Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the aims of the Wild Birds Directive, by maintaining or restoring;*

- The extent and distribution of the habitats of the qualifying features
- The structure and function of the habitats of the qualifying features
- The supporting processes on which the habitats of the qualifying features rely
- The population of each of the qualifying features, and,
- The distribution of the qualifying features within the site.'

5.13 Chichester and Langstone Harbours **Ramsar** site qualifies under the following Ramsar criteria.[71]

[70] Natural England. European Site Conservation Objectives for Chichester and Langstone Harbours Special Protection Area (2014) Available: http://publications.naturalengland.org.uk/publication/5789102905491456 [Accessed: 15/10/2018].
[71] http://jncc.defra.gov.uk/pdf/RIS/UK11013.pdf [accessed 01/10/2018]
Note: Defra and Natural England have not produced a Conservation Advice package, instead focussing on the production of High Level Conservation Objectives. Natural England considers the Conservation Advice packages for the overlapping European Marine Site designations to be, in most cases, sufficient to support the management of the Ramsar interests.

Table 4. Chichester and Langstone Harbours Ramsar site criteria.

Ramsar criterion	Description of criterion	Chichester and Langstone Harbours
1	A wetland should be considered internationally important if it contains a representative, rare, or unique example of a natural or near-natural wetland type found within the appropriate biogeographic region.	Two large estuarine basins linked by the channel which divides Hayling Islands from the main Hampshire coastline. The site includes intertidal mudflats, saltmarsh, sand and shingle spits and sand dunes.
5	A wetland should be considered internationally important if it regularly supports assemblages of waterbirds of international importance.	76,480 waterfowl (5-year peak mean 1998/99–2002/03).
6	A wetland should be considered internationally important if it regularly supports 1% of the individuals in a population of one species or subspecies of waterbird.	Species with peak counts in spring/autumn: Ringed plover *Charadrius hiaticula*: 853 individuals, representing an average of 1.1% of the population (5-year peak mean 1998/99–2002/03). Black-tailed godwit *Limosa limosa islandica*: 906 individuals, representing an average of 2.5% of the population (5-year peak mean 1998/99–2002/03). Common redshank *Tringa totanus totanus*: 2577 individuals, representing an average of 1% of the population (5-year peak mean 1998/99–2002/03). Species with peak counts in winter: Dark-bellied brent goose *Branta bernicla bernicla*: 12,987 individuals, representing an average of 6% of the populations (5-year peak mean 1998/99–2002/03). Common shelduck *Tadorna tadorna*: 1,468 individuals, representing an average of 1.8% of the GB population (5-year peak mean 1998/99–2002/03). Grey plover *Pluvialis squatarola*: 3,043 individuals, representing an average of 1.2% of the population (5-year peak mean 1998/99–2002/03). Dunlin *Calidris alpina alpina*: 33,436 individuals, representing an average of 2.5% of the population (5-year peak mean 1998/99–2002/03). Species regularly supported during the breeding season: Little tern *Sternula albifrons albifrons*: 130 apparently occupied nests, representing an

		average of 1.1% of the breeding populations (Seabird 2000 census)[72]

Medmerry Nature Reserve

5.14 At present Medmerry has the status of 'Identified Compensatory Habitat' which gives it protection through the planning system (specifically, paragraph 118 of the National Planning Policy Framework identifies that such compensatory habitat must be treated it as if it is a European site). If/when it becomes identified by Natural England as a potential SPA (pSPA) this would give it legal protection under the Habitats Regulations 2017. Since it is not actually a pSPA it does not have specific official conservation objectives or designated interest features. However, for the purposes of future-proofing the HRA of the Local Plan it is reasonable to assume that during the plan period it will acquire a collection of interest features similar to that of Chichester & Langstone Harbour SPA and the Solent Maritime SAC. The site is already known to support Brent geese, golden plover, lapwing and avocet and also has extensive areas of intertidal mudflat and early successional saltmarsh.

Solent Maritime SAC

Features of European Interest[73]

5.15 Solent Maritime SAC qualifies as a SAC for both habitats and species. Firstly, the site contains the following Habitats Directive Annex I habitats:

- Estuaries;
- Cord-grass (*Spartina*) swards (*Spartinion maritimae*);
- Atlantic salt meadows (*Glauco-Puccinellietalia maritimae*);
- Subtidal sandbanks (sandbanks which are slightly covered by seawater all the time);
- Intertidal mudflats and sandflats (mudflats and sandflats not covered by seawater at low tide);
- Lagoons (coastal lagoons);
- Annual vegetation of drift lines;
- Coastal shingle vegetation (perennial vegetation of stony banks);
- Glasswort (*Salicornia*) and other annuals colonising mud and sand; and
- Shifting dunes with marram (shifting dunes along the shoreline with *Ammophila arenaria* 'white dunes').

5.16 Secondly, the site also qualifies for the following Habitats Directive Annex II species:

- Desmoulin's whorl snail (*Vertigo moulinsiana*).

Conservation Objectives[74]

5.17 '*Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring;*

- *The extent and distribution of qualifying natural habitats and habitats of qualifying species*
- *The structure and function (including typical species) of qualifying natural habitats*
- *The structure and function of the habitats of qualifying species*

[72] Species identified subsequent to designation for future possible consideration.
[73] Available online: http://jncc.defra.gov.uk/protectedsites/sacselection/sac.asp?EUCode=UK0030059 [Accessed: 15/10/2018].
[74] Natural England. European Site Conservation Objectives for Solent Maritime Special Area of Conservation (2014) AvalableAvailable online: http://publications.naturalengland.org.uk/publication/5762436174970880 [Accessed: 15/10/2018]. http://publications.naturalengland.org.uk/publication/5762436174970880

- *The supporting processes on which qualifying natural habitats and the habitats of qualifying species rely*
- *The populations of qualifying species, and,*
- *The distribution of qualifying species within the site.'*

Historic Trends and Current Conditions

5.18 Langstone Harbour is fringed by urban and industrial development, whereas Chichester Harbour is surrounded mainly by high grade farmland. The site is subjected to significant recreational pressures, especially during summer months.

5.19 Both harbours are managed by statutory bodies whose remits include conservation of the natural environment. Conservation bodies have an advisory input to the management of the harbours and play an active role in the management of numerous Local Authority and RSPB nature reserves around the site. In 2000, a collaborative Solent European Marine Sites project was set up with the aim of developing a strategy for managing the marine and coastal resources of the Solent in a more integrated and sustainable way.

5.20 The Environment Agency Review of Consents and the HRA of the South East Regional Spatial Strategy both identified that development within the Chichester area may be constrained by restrictions that will be/have been placed on some Wastewater Treatment Works (WwTW) in order to ensure suitable water quality in the receiving marine/coastal waters of the two harbours. Memoranda of understanding currently exist between both the Environment Agency (EA) and Southern Water Services and Chichester Council which clearly set out which WwTWs are constrained, the quantum of new housing that can be accommodated and the available strategies for delivering housing while avoiding adverse effects on the European sites.

5.21 Natural England condition assessment of Chichester Harbour SSSI indicated that 22% of the site was in favourable condition, with the remaining 78% recovering from an unfavourable status. In the case of Langstone Harbour SSSI these figures were 9% and 91% respectively.

Key Environmental Conditions

5.22 The key environmental conditions that support the features of European interest have been defined as:

- Sufficient space between the site and development to allow for managed retreat of intertidal habitats (to avoid coastal squeeze);
- Avoidance of dredging or land-claim of coastal habitats;
- Maintenance of freshwater inputs;
- Balance of saline and non-saline conditions;
- Unpolluted water;
- Absence of nutrient enrichment;
- Absence of non-native species;
- Maintenance of adjacent grassland (key foraging resource); and
- Absence of disturbance.

Potential Effects Linking to the Local Plan

5.23 The screening assessment undertaken in **Appendix A: Policy and Allocation Screening** identify the following policies and strategic site allocations have the potential to link to these European designated sites and result in likely significant effects. These are as follows:

Policies

- Policy H1: Meeting Housing Needs
- Policy H2: Strategic Locations / Allocations 2021 – 2039
- Policy H3: Parish Housing Requirements 2021 – 2039
- Policy H11: Meeting Gypsies, Travellers and Travelling Showpeoples' Needs
  - Land at Cherry West
  - Land at Lakeside Barn
  - Tower View Nurseries
  - Greenacre
  - Sunrise Southbourne
  - The Stables on Bracklesham Lane
  - Five Paddocks Farm Bracklesham
- Policy H12: Intensification Sites
- Policy E1: Meeting Employment Land Needs
- Policy E3: Addressing Horticultural Needs
- Policy E5: Retail Strategy and New Development

Strategic Site Allocations and Broad Locations for Development

- Policy A6: Land West of Chichester
- Policy A7: Land at Shopwyke (Oving Parish)
- Policy A8: East of Chichester (Oving Parish)
- Policy A5: Southern Gateway – Police Field, Kingsham Road
- Policy A4: Southern Gateway – Bus Station, Bus Depot and Basing Road Car Park
- Policy A15: Loxwood
- Policy A2: Chichester City Strategic Housing Location
- Policy A9: Land at Westhampnett / North East Chichester
- Policy A11: Highgrove Farm, Bosham
- Policy A12: Chidham and Hambrook Parish
- Policy A13: Southbourne Broad Location for Development
- Policy A14: Land West of Tangmere
- Policy A16: Goodwood Motor Circuit and Airfield
- Policy A20: Land South of Bognor Road
- Policy: A19: Land at Chichester Business Park, Tangmere
- Policy A21: Land East of Rolls Royce

5.24 Potential linking impact pathways are as follows:

- Urbanisation
- Recreational pressure
- Reduced water quality
- Coastal squeeze

- Loss of functionally linked supporting habitat for birds
- Atmospheric pollution

Appropriate Assessment

Urbanisation

5.25 Development described in the Chichester Local Plan provides for development within the following allocations or Parishes that are wholly or partially located within 400m of the SPA/ Ramsar site and as such could affect the European sites in urbanisation effects:

- Policy A13: Southbourne Broad Location for Development
- Policy A12: Chidham and Hambrook
- Policy A18: Thorney Island
- The Parish of West Thorney
- The Parish of Bosham
- The Parish of Fishbourne

5.26 In addition, the parishes of Selsey, Earnley and Sidlesham all lie within 400m of Medmerry Nature Reserve. No sites have been allocated for residential dwellings within the Local Plan within 400m of the Medmerry Nature Reserve.

5.27 Whilst none of the policies stated above provide for specific protection from potential urbanisation effects, Plan Policy NE5: Biodiversity and Biodiversity Net Gain states: *'All development shall ensure the conservation, protection, enhancement and restoration of biodiversity avoiding any adverse impact on the condition and recovery of all types of nature conservation sites, habitats and species within their ecological network… Opportunities to conserve, protect, enhance and recover biodiversity and contribute to wildlife and habitats connectivity will be undertaken, including the preservation, restoration and recreation of priority habitats, ecological networks and the protection and recovery of priority species populations;*

5.28 Other protective measures included within policy text include:

- Policy I1: Infrastructure Provision: this policy provides for the timely delivery of infrastructure. This may include recreational provision to ensure no adverse effects result.
- Policy A18: Thorney Island: '*All development proposals should seek to enhance the overall character of the Island as well as support opportunities for habitat creation. Proposals must mitigate any adverse impacts on local infrastructure and ecology, preserve the character of the surrounding area and take opportunities to increase public access. Proposals must avoid adverse impacts on the Chichester Harbour AONB/SAC/SPA and Ramsar designations and comply with Policy NE13 (Chichester Harbour AONB) and associated AONB Management Plan and SPD'*.

5.29 Moreover, Policy NE6: Chichester's Internationally and Nationally Designated Habitats states that a requirement of all development is that '*it would not lead to an adverse effect upon the integrity, either alone or in-combination, directly or indirectly, on internationally, European and nationally important sites'*

Recreational Pressure

5.30 Chichester and Langstone Harbours SPA/Ramsar sites and the Medmerry Nature Reserve lie within the Chichester Local Plan area. The Solent Forum undertook a project to examine bird disturbance and possible mitigation in the Solent area. A Phase 1 report has outlined the existing visitor data for the Solent, canvassed expert opinion on recreational impacts on birds and assessed current available data on relevant species. Phase II of the Solent Disturbance and Mitigation Project identified that survival rates for curlew and a variety of other bird species were predicted to decrease under an increase in visitor rates.

5.31 The 2017 Solent Recreation Mitigation Strategy[75] aims to address the strategic issue of increased recreational pressure to SPA sites along the Solent Coast by implementing measures including a coastal ranger team, increased education, responsible dog walking initiatives, codes of conduct for coastal activities, site-specific visitor management and habitat protection projects and the provision of alternative greenspaces. These measures are to be coordinated by a partnership manager, and their delivery will be funded by financial contributions from developments within 5.6km of the Solent European sites. At the time of writing (December 2022), this contribution equates to a flat rate of £652 per net additional dwelling. The scale of contributions differs according to the number of people expected to live in the property which is calculated per bedroom. The contributions rates for Bird Aware Solent are currently:

- £390 for 1 bedroom dwelling
- £563 for 2 bedroom dwelling
- £735 for 3 bedroom dwelling
- £864 for 4 bedroom dwelling
- £1014 for 5 bedrooms or more

5.32 These rates are subject to annual change in April of each year[76].

5.33 Data on visitor activity in the Solent complex was obtained through the Solent Disturbance and Mitigation Project.[77,78] Chichester Harbour is expected to see an increase of 15-20% in visitors (Fig. 5.4 of Stillman et al), although the numbers of visitors per hectare of intertidal habitat (i.e. visitor density) is predicted to be a lot lower than most other parts of the Solent frontage (Figure 5.6 of the same report). In most cases, visitor density is predicted to be below 30/ha, the density above which the report identifies birds may have reduced survival due to disturbance (Figure 5.7 of the same report). The exceptions are sectors 67 (Northney to Langstone Bridge) and 78 (Bosham Shipyard to Southwood Farm); in the case of sector 78 visitor densities are predicted to be more than twice this threshold. Although disturbance rates were relatively low within Chichester Harbour as a whole, the low measured abundance of food, implies that birds would also be vulnerable to disturbance in this site. Visitor numbers per day were typically highest on weekends compared to weekdays. Holiday makers accounted for 6% of the total number of visitors recorded. Visitors undertook a wide range of activities, with walking (without a dog) and dog walking the two most frequently recorded activities (44% and 42% of interviews). Across all sites and activities, visits were typically short, with 89% lasting less than two hours. Across all sites (and taking the data for non-holiday makers only) visitors were roughly evenly divided between those who arrived by car and those who arrived on foot. Ninety percent of all visitors arriving on foot lived within 2km, compared to only 20% of visitors arriving by car. Almost eighty percent of all visitors arriving by car (excluding holiday makers) lived within 10km, with 50% living within 4km. The overall median distance from site (across the study area) for non-tourist visitors was 1.7km.

5.34 From examination of Map 4 in Fearnley et al[79] the vast majority of South-Hampshire based visitors (irrespective of mode of transport) to Chichester Harbour lived south of the A27 in a band from Emsworth (in Havant borough) to south-west Chichester city. Emsworth and South Hayling in Havant borough, and Chichester city itself were the most significant sources of local visitors to Chichester Harbour, while East Wittering makes a contribution that is not insignificant. However, visitors did arise from as far afield as Horndean in East Hampshire (approximately 8km to the north-west). The projected increase in visitors cannot therefore be entirely attributed to the Local Plan area any more than it can be stated that the Local Plan area will not be contributing visitor pressure along other sections of frontage. However, it is reasonable to assume that significant new development within the Chichester Local Plan area will make a significant contribution to increased visitor pressure in Chichester Harbour.

[75] Stillman, R. A., West, A. D., Clarke, R. T. & Liley, D. (2012) Solent Disturbance and Mitigation Project Phase II: Predicting the impact of human disturbance on overwintering birds in the Solent. Report to the Solent Forum.
[76] Planning application forms and guidance notes: Chichester District Council [accessed 05/12/22]
[77] Fearnley, H., Clarke, R. T. & Liley, D. (2010). The Solent Disturbance & Mitigation Project. Phase II - On-site visitor survey results from the Solent region. ©Solent Forum /Footprint Ecology
[78] Stillman, R. A., West, A. D., Clarke, R. T. & Liley, D. (2012) Solent Disturbance and Mitigation Project Phase II: Predicting the impact of human disturbance on overwintering birds in the Solent. Report to the Solent Forum.
[79] Fearnley, H., Clarke, R. T. & Liley, D. (2010). The Solent Disturbance & Mitigation Project. Phase II - On-site visitor survey results from the Solent region. ©Solent Forum /Footprint Ecology

Medmerry Nature Reserve was completed in autumn 2013 and has the status of '*Identified Compensatory Habitat*'. One of the specific objectives of the scheme is to create a new extensive network of public and permissive rights of way, which will be managed in the long term. Given its sheer size, the creation of an extensive network of footpaths and the fact that it is promoted as a visitor attraction it is likely to form a recreational draw and the same principles regarding an adverse effect at Chichester Harbour should therefore apply to Medmerry.

5.35 Phase 3 of the Solent Disturbance and Mitigation Project identified that a 5.6 km zone of influence should be applied around the European sites and that mitigation for recreational pressure impacts would need to be associated with all new housing within this zone. Chichester District Council has considered mitigation measures produced from the Solent Disturbance and Mitigation Project (Phase 3) to establish measures that prevent and where possible reduce the cumulative impacts of recreational pressures placed upon European Sites.

5.36 This is recognised in the Policy NE7: Development and Disturbance of Birds in Chichester and Langstone Harbours, Pagham Harbour, Solent and Dorset Coast Special Protection Areas and Medmerry Compensatory Habitat: '*It is Natural England's advice that all net increases in residential development within the 5.6km 'Zone of Influence' are likely to have a significant effect on the Chichester and Langstone Harbours SPA either alone or in-combination with other developments and will need to be subject to the provisions of Regulation 63 of the Conservation of Habitats and Species Regulations 2017 (as amended). In the absence of appropriate avoidance and/or mitigation measures that will enable the planning authority to ascertain that the development would not adversely affect the integrity of the SPA, planning permission will not be granted because the tests for derogations in Regulation 64 are unlikely to be met. Furthermore, such development would not have the benefit of the presumption in favour of sustainable development in the National Planning Policy Framework.*

Appropriate avoidance/mitigation measures that are likely to allow the planning authority to ascertain that there will be no adverse effect on the integrity of the SPA will comprise:

a) A contribution in accordance with the joint mitigation strategy outlined in the Bird Aware Solent Strategy; or

b) A developer provided package of measures associated with the proposed development designed to avoid any significant effect on the SPA, provided and funded in-perpetuity; or

c) A combination of measures in (a) and (b) above.

Avoidance/mitigation measures will need to be phased with development and shall be maintained in perpetuity. All mitigation measures in (b) and (c) above must be agreed to be appropriate by Natural England through the Habitats Regulations Assessment process...'

5.37 Other protective measures for Chichester & Langstone Harbours SPA/Ramsar, Pagham Harbour SPA/Ramsar, Solent & Dorset Coast SPA and Solent Maritime SAC included within policy text include:

With regard to Pagham Harbour SPA/Ramsar and Medmerry Compensatory Habitat Policy NE7: Development and Disturbance of Birds in Chichester and Langstone Harbours, Pagham Harbour, Solent and Dorset Coast Special Protection Areas and Medmerry Compensatory Habitat states: '*Net increases in residential development within the 3.5km 'Zone of Influence' are likely to have a significant effect on the Pagham Harbour SPA either alone or in-combination with other developments and will need to be subject to the provisions of Regulation 63 of the Conservation of Habitats and Species Regulations 2017 (as amended). In the absence of appropriate avoidance and/or mitigation measures that will enable the planning authority to ascertain that the development would not adversely affect the integrity of the SPA, planning permission will not be granted because the tests for derogations in Regulation 64 are unlikely to be met. Furthermore, such development would not have the benefit of the presumption in favour of sustainable development in the National Planning Policy Framework.Net increases in residential development, which incorporates appropriate avoidance/mitigation measures, which would avoid any likelihood of a significant effect on the SPA, will not require 'appropriate assessment'. Appropriate avoidance/mitigation measures that are likely to allow the planning authority to ascertain that there will be no adverse effect on the integrity of the SPA will comprise:*

a) A contribution towards the appropriate management of the Pagham Harbour Local Nature Reserve through the joint Chichester and Arun Scheme of Mitigation in accordance with the LNR Management Plan; or

b) *A developer provided package of measures associated with the proposed development designed to avoid any significant effect on the SPA; or*

c) *A combination of measures in (a) and (b) above.*

Avoidance/mitigation measures will need to be phased with development and shall be maintained in perpetuity. All mitigation measures in (a), (b) and (c) above must be agreed to be appropriate by Natural England in consultation with owners and managers of the land within the SPA.'

- Policy NE5: Biodiversity & Biodiversity Net Gain states: '*All development shall ensure the conservation, protection, enhancement and restoration of biodiversity avoiding an adverse impact on the condition and recovery of all types of nature conservation sites, habitats and species within their ecological networks including: A. internationally designated sites (SPA, SAC, Ramsar)*'
- Policy NE5: Biodiversity & Biodiversity Net Gain also states: '*Planning permission will be granted for development where it can be demonstrated that all the following criteria have been met… Development proposals that will have an impact on international, national, locally designated sites and irreplaceable habitats will be require to meet the following:… development proposals with the potential to impact on one or more international site(s) will be subject to a HRA to determine the potential for likely significant effects. Where likely significant effects may occur, development proposals will be subject to Appropriate Assessment.*'
- Policy I1: Infrastructure Provision: '*The Council will work with partner organisations to coordinate infrastructure provision to ensure that individual and cumulative development is supported by the timely provision of adequate infrastructure, facilities, and services.' This may include recreational provision to ensure no adverse effects result*.'
- Policy A18: Thorney Island: '*All development proposals should seek to enhance the overall character of the Island as well as support opportunities for habitat creation. Proposals must mitigate any adverse impacts on local infrastructure and ecology, preserve the character of the surrounding area and take opportunities to increase public access. Proposals must avoid adverse impacts on the Chichester Harbour ANOB/SAC/SPA and Ramsar designations…*'
- Policy A6: Land West of Chichester: '*Taking into account the site specific requirements, development should: 15. Be planned with special regard to the need to achieve nutrient neutrality and mitigate potential impacts of recreational disturbance on the Chichester Harbour SAC/SPA/Ramsar including contributing to strategic access management*.'
- Policy A7: Land at Shopwyke (Oving Parish): '*Taking into account the site specific requirements, development should: Be planned with special regard to the need to mitigate potential impacts of recreational disturbance on the Chichester Harbour SAC/SPA/Ramsar including contributing to any strategic access management issues*.'
- Policy NE6: Chichester's Internationally and Nationally Designated Habitats: '*Development will only be permitted where it would not lead to an adverse effect upon the integrity, either alone or in-combination, directly or indirectly, on internationally, European and nationally important habitat sites." This policy includes protection for habitats and species against increased water consumption, increased nutrient inputs, and recreational disturbance as well as protection for functionally linked land*.'
- With specific regard to Medmerry Nature Reserve, Policy NE6 states that '*development proposals for any net increase in overnight accommodation within the Zones of Influence for… Medmerry Compensatory Habitat will be required to provide appropriate avoidance/mitigation measures in accordance with Policy NE7*.'

5.38 With this wide ranging policy framework to ensure the protection of European sites in it is considered that this impact pathway will not result in adverse effect on the integrity of these European sites.

Recommendations:

5.39 The following recommended policy text changes are made to ensure full robustness of the Local Plan Policy Framework:

- Policy E9: Caravan and Camping Sites: To ensure this policy provides a robust framework to ensure the protection of European sites, it is recommended that policy text is amended as follows (amendments in **bold**, addition <u>underlined</u>, removal ~~strikethrough~~):

*'~~**Whether there is a requirement**~~ **The degree of protection considered desirable in order** to avoid disturbance to sensitive sites of ecological value (including ensure no adverse effects on integrity of sensitive European designated wildlife sites occurs) or to protect the tranquillity and character of the countryside, Chichester Harbour Area of Outstanding Natural Beauty and the setting of the National Park, Pagham Harbour and the undeveloped coast; and'*

- Policy NE12: Development around the Coast: It is recommended that point 1 and 2 is amended as follows (amendments in **bold**, addition underlined, removal ~~strikethrough~~)

'*1. There are no harmful effects on or net loss of nature conservation or areas of geological importance ~~**in particular**~~ within the Chichester and Pagham Harbours and Medmerry Realignment (including no adverse effects on the associated European designated sites);*

*2. ~~**If**~~ the development provides recreational opportunities that ~~**they**~~ do not adversely affect the character, environment and appearance of the coast and Chichester Harbour Area of Outstanding Natural Beauty or ~~**damage**~~ **result in adverse effects on** the integrity to European designated wildlife sites'*

Reduced Water Quality

5.40 The Environment Agency's Weight of Evidence approach identifies the site's current water quality status in terms of macroalgal and phytoplankton markers as poor for Chichester & Langstone Harbours SPA/Ramsar. Much of the development in the southern part of the Local Plan area is served by WwTW which discharge into the WFD water body of Chichester Harbour which includes the Solent Maritime SAC, and Chichester and Langstone Harbours SPA and Ramsar site. The main relevant WwTW are Apuldram (Chichester) WwTW, Bosham WwTW and Thornham WwTW.

5.41 Natural England's Site Improvement Plan (SIP) for the Solent states that water pollution affects a range of habitats and bird species through eutrophication (in the case of birds through cascading effects mediated through the food chain) and direct toxicity. Sources include both point-source discharges (e.g. from flood alleviation / storm discharges and Wastewater Treatment Works; WwTWs) and diffuse nitrogen leaching, such as from agricultural and road surface run-off. Currently, it is now advised that nitrogen and phosphorus concentrations entering the Solent are continuously monitored to identify the scale of nutrient inputs to the marine environment.

5.42 The Local Plan mentions that in February 2018 the Chichester Harbour designated Site of Special Scientific Interest was downgraded from 'Unfavourable – recovering' to 'Unfavourable – no change'. Further assessment during 2019/20 found that more than 3,000ha of the intertidal parts of Chichester Harbour were now 'Unfavourable – declining'. A significant portion of the nitrogen loading in the marine environment derives from agriculture, such as from the routine application of fertilisers and other factors (e.g. livestock accessing freshwater bodies). This source is being addressed through several strategic mitigation solutions (e.g. through Defra's Catchment Sensitive Farming initiative and does not lie within the control of Local Planning Authorities (i.e. agricultural land is not usually allocated in Local Plans). However, a smaller, yet in-combination still significant, source of nitrogen is treated sewage effluent from WwTWs. Potential adverse impacts of treated wastewater on European sites are typically prevented through the Review of Consents process undertaken by the Environment Agency. This sets permit limits for water quality parameters (such as nitrogen) in WwTWs discharging to sensitive waterbodies. However, there is growing uncertainty whether future housing and the associated wastewater output can be accommodated without detrimental effects on European sites. NE has introduced a requirement of nutrient neutrality for new developments in the Solent region, including residential dwellings, hotels / holiday accommodation and tourism attractions. This applies to development of all sizes, even one additional dwelling, which could add to the existing nutrient burden in Solent's European sites. NE's advice note (the latest version of which is Version 5 dated March 2022[80]) includes a nutrient neutrality calculation, which needs to be completed for any of the above identified types of development. Much of the southern section of Chichester District lies within the hydrological catchment of the Solent European sites and Chichester and Langstone Harbour and therefore most sites allocated in the emerging LP will need to be supported by a detailed nutrient budget.

5.43 The first five years of nutrient budget is most important in identifying whether there is sufficient mitigation capacity available to ensure deliverability of the Local Plan as every Local Plan is reviewed

[80] Nutrient neutrality: Chichester District Council

every five years in any event. The annual nutrient budget (with 20% buffer) for the first five years of the plan is **XX kg/N/yr**, which is associated with **XX** sites: **XX**. Therefore, there would need to be sufficient mitigation delivered over the first five years of the plan period to offset **XX** kgN/yr. The mitigation would also need to be provided in a timely manner i.e. for each development site the mitigation would need to be secured and in place before the development could be occupied.

Mitigation Contained in the Local Plan

5.44 While mitigation to offset the identified **XX** kgN/ha/yr does not need to be identified or secured at this stage (provided it is identified before the relevant sites are consented for development) there does need to be adequate confidence that sufficient mitigation is likely to be available. As an example, to offset **XX** kgN/yr approximately XX additional hectares of arable land would need to be removed from production and rewilded. This is a relatively small area of land and illustrates that sufficient offsetting for the first five years of the Local Plan period should be achievable without particular difficulty.

5.45 The emerging Local Plan already refers to water quality in the Solent and the concept of nutrient neutrality in Policy NE18: Nutrient Neutrality. It states that '*Development involving an overnight stay (such as residential or tourist development) that discharges into Chichester and Langstone Harbour SPA/Ramsar (either surface water, non mains drainage development or through wastewater treatment works) will be required to demonstrate that it will be nutrient neutral for the lifetime of the development, either by its own means or by means of agreed mitigation measures*'. This policy text aligns the plan document with NE's requirement and places the onus on developers to ensure that there will be no net nutrient input to the Solent from future development.

5.46 Additionally, the supporting text from Policy NE16: Water Management and Water Quality states that the '*Policy helps to reduce the flow going to WwTW by requiring that all new dwellings achieve the tighter building regulations water consumption target. It is noted that Portsmouth Water and Southern Water have targets to reduce water consumption to 100 litres per person per day (lppd) by 2040, a lower figure than the current most stringent Building Regulations target of 110 lppd… The Water Management and Water Quality policy applies additional restrictions to development in the Apuldram (Chichester) WwTW catchment in order to protect the water environment of Chichester Harbour. The catchment is affected by a high level of groundwater infiltration to the sewer network which has historically led to high winter flows to the treatments works meaning the storm overflow has been in operation for significant periods of time. The Environment Agency and Southern Water agreed a joint position statement in December 2018, which is a material consideration in determining planning applications in the catchment.'* A position statement to manage development in the Thornham WwTW catchment where headroom is environmentally constrained was also agreed in November 2021. These stringent targets will assist in the reduction of nutrients entering the WwTW which discharge to the Chichester Harbour area.

5.47 The Policy itself states that "*New development outside of the settlement boundaries of Chichester, Fishbourne and Stockbridge will not drain into the Apuldram WwTW*" and therefore the wastewater will not drain into Chichester Harbour. This is shown in the nutrient calculations where the wastewater from the strategic developments at "West of Chichester" and "Western Section: Westhampnett" (a total of 1800 dwellings) will be diverted to Tangmere WwTW. The West of Chichester development also proposes a Country Park removing land from agricultural production for a positive purpose that can have a considerable nitrogen reduction benefit. .

5.48 Chichester District Council website also refers to the Partnership for South Hampshire (PfSH), which is in the process of establishing a programme for land use change in the wider Solent region in partnership with the Hampshire & Isle of Wight Wildlife Trust (HIWWT). Their published list of potential mitigation schemes as of November 2022 includes a scheme at Chilgrove Farm which would serve the Apuldram, Thornham and Bosham WwTWs[81]. This will enable developers to purchase agricultural land strategically to be managed to reduce nitrogen leaching. Overall, the emerging Local Plan already refers to the main existing pillars of nitrogen mitigation, implying that any allocated development would not materially contribute to in-combination water quality impacts in the Solent.

5.49 Given that there are policies within the Local Plan that specifically prevent the acceptance of development without the developer having provided evidence of nutrient neutrality in perpetuity, that the amount of rewilding or other mitigation required for the first five years of the plan period is relatively limited, and that the council is working with the Partnership for South Hampshire to identify potential

[81] Potential-Mitigation-Schemes-November-2022.pdf (push.gov.uk) [Accessed 28/11/2022]

mitigation schemes to be utilised for development within the Local Plan area. It can be concluded that there will be no adverse effects of the plan on the integrity of the Chichester and Langstone Harbours SPA and Ramsar site and the Solent Maritime SAC regarding water quality and nutrient neutrality in combination with other plans and projects.

Coastal Squeeze

5.50 Loss of estuarine habitats could be an issue where greenfield sites are developed but could also be an issue where intensification of existing residential areas through brownfield development might be an argument for maintaining or strengthening existing defences ('hold the line' or 'advance the line'). No new development areas identified in the Local Plan are sufficiently close to the SPA/Ramsar site to constrain any managed retreat that may be required in the future to allow the SPA/Ramsar site to respond to sea level rise and none would require the coastal defence policies identified in the Shoreline Management Plan to be altered (indeed, Policy NE14 Integrated Coastal Zone Management for the Manhood Peninsula specifically states that proposals and initiatives will be supported where they address proposals for the coastline and coastal communities set out in the Coastal Defence and Shoreline Management Plans).

5.51 Although the development of Thorney Island set out in Policy S17 Thorney Island could theoretically lead to development that constrained the natural processes of the SPA/Ramsar site if care was not taken, policy text specifically states that '*Proposals must mitigate any adverse impacts on the Chichester Harbour ANOB/SPA/SAC and Ramsar designations and comply with Policy NE (Chichester Harbour ANOB and associated ANOB Management Plan and SPD'*. This is further reflected in the policy text itself which states that '*All development proposals should seek to enhance the overall character of the Island, as well as support opportunities for habitat creation. Proposals must mitigate any adverse impacts on local infrastructure and ecology, preserve the character of the surrounding area and take opportunities to increase public access".*. It also states that aviation or noisy sports are unlikely to be considered acceptable. Given the explicit statement in policy that any redevelopment must not adversely affect the SPA/Ramsar site it is considered that there would be no adverse effects on the integrity of the European sites as a result of Plan policy. There are no other plans or projects which would operate 'in combination' with the Local Plan.

Loss of Functionally Linked Supporting Habitat for Birds

5.52 Chichester & Langstone Harbours SPA and Ramsar sites are notified partly for their over-wintering populations of Brent geese and wading bird species. However, studies[82] have identified that many feeding and roosting sites around the Solent fall outside of the statutory nature conservation site boundaries. The majority of Brent Goose feeding sites are amenity/recreation grasslands with little intrinsic nature conservation interest, and therefore are vulnerable to loss or damage from development. This also applies to some high tide wader roosts in the Solent.

5.53 There are several parishes that support functionally linked habitat for over-wintering populations of Brent geese and wading bird species within the Chichester District. These are summarised as follows:

- **Chidham and Hambrook** – Chidham holds large pockets of functionally linked habitat ranking from *Core/Primary* to *low use.* It is therefore considered that the delivery of c. 300 residential dwellings within the Parish could lead to the loss of this essential habitat. However, the area of Hambrook does not hold functionally linked habitat. It is therefore advised that housing development if focused towards the north of Chidham and Hambrook Parish (north of the A259) would avoid loss of functionally linked habitat.
- **Southbourne Broad Location for Development** - holds pockets of functionally linked habitat ranking from *primary support areas* to *low use.* It is therefore considered that the Broad Location for Development at Southbourne of c. 1,050 residential dwellings which encompasses a Solent wader and brent goose parcel (C45), a secondary support area of approximately 64 ha, that coincides ith approximately 33% of the Broad Location for Development (196.5 ha), could lead to the loss of this essential habitat dependent on where development is brought forward.
- **Fishbourne** – holds pockets of functionally linked land to the south of the village ranging core/primary to low use. It is therefore considered that the allocation of c. 30 residential dwellings

[82] King, D. (2010) Solent Waders and Brent Goose Strategy 2010. Hampshire and Isle of Wight Wildlife Trust.

could lead to the loss of this essential habitat dependent on where residential dwellings are allocated within the parish. It is advised that development is located appropriately to avoid functionally linked land.

- **Thorney Island** – also holds extensive areas of functionally linked land from core/primary to low use/ It is therefore considered that development on Thorney Island could lead to the loss of this essential habitat dependent on where development is located on the island. It is advised that development is located appropriately to avoid functionally linked land.

5.54 As such it was considered at the screening stage that development within these Parishes could lead to likely significant effects to over-wintering populations of Brent geese and wading bird species.

5.55 In the HRA undertaken for Chichester District Council in 2014 it was reported that the Council had *'indicated in discussions over this HRA that policy recommendations to protect locations outside of the SPA/ Ramsar site of value to Brent geese and waders would be addressed within the Site Allocations DPD and Neighbourhood Plans*'.

5.56 Nonetheless, policy within the Local Plan includes policy that provides protection to European designated sites as follows:

5.57 Policy NE5: Biodiversity and Biodiversity Net Gain states: *'All development shall ensure the conservation, protection, enhancement and restoration of biodiversity avoiding any adverse impact on the condition and recovery of all types of nature conservation sites, habitats and species within their ecological network… Opportunities to conserve, protect, enhance and recover biodiversity and contribute to wildlife and habitats connectivity will be undertaken, including the preservation, restoration and recreation of priority habitats, ecological networks and the protection and recovery of priority species populations;'*

5.58 The Local Plan also provides Policy NE7: Development and Disturbance of Birds in Chichester and Langstone Harbours, Pagham Harbour, Solent and Dorset Coast Special Protection Areas and Medmerry Compensatory Habitat which states in relation to the Solent Waters and Brent Goose sites: '*The provisions of this policy do not exclude the possibility that some residential schemes either within or outside the Zone of Influence might require further assessment under the Habitats Regulations. For example, large schemes, schemes proposing bespoke or alternative avoidance/mitigation measures, or schemes that impinge on the supporting habitats identified by the Solent Waders and Brent Goose Strategy. Such schemes will be assessed on their own merits under Regulation 63 (appropriate assessment), and, subject to advice from Natural England. Where mitigation for any impact upon supporting habitats is required this should follow the guidance given in the Solent Waders and Brent Goose Strategy*'. And goes into further detail within the supporting text to say '*For both Chichester and Pagham Harbours some of the bird species for which they are designed, Brent Geese in particular, use functionally linked supporting habitats around the SPA for feeding and roosting. Developments on or adjacent to these areas can have an impact on the SPAs separate to and additional to the impact of recreational disturbance. For Chichester and Langstone Harbours SPA, the Solent Waders and Brent Goose Strategy (https://solentwbgs.wordpress.com/page-2/) identifies the areas of supporting habitat and grades them into four categories: core areas, primary support areas, secondary support areas and low use areas. Interim guidance on offsetting and mitigation requirements has been produced*.[83]' In line with these policies, any development impacting on parcels of land which are functionally linked to the SPA within the Solent Waters and Brent Goose Strategy will require a project level HRA to identify appropriate avoidance and mitigation strategies and to ensure no adverse effect.

5.59 And finally, where necessary, such as for Chidham and Hambrook Parish, residential allocations text has been incorporated into the Broad Location for Development policy to ensure no loss of functionally linked habitat as follows: '*6. Ensure that development avoids harm to protected species and existing important habitats features and facilitates the achievement of biodiversity net gain and facilitates the creation of high levels of habitat connectivity within the site and to the wider Green Infrastructure network and identified Strategic Wildlife Corridors within the parish. This includes the provision of appropriate buffers as necessary in relation to important habitats which are being retained and/or created. 7. Successfully mitigate potential impacts on the Chichester Harbour SAC/SPA/Ramsar, including contributing to any strategic access management issues (including on-site mitigation where*

[83] swbgs-mitigation-guidance-oct-2018.pdf (wordpress.com) [Accessed 28/11/2022]

required as part of the Habitats Regulations Assessment), and potential for loss of functionally linked supporting habitat.'

5.60 The plan provides a robust policy framework including a requirement for project level HRA and, if loss of functionally linked land would be significant, specific requirements within the Broad Location for Development policies for avoiding and/or mitigating the loss of functionally linked land. Therefore, before any development within Southbourne or other parishes, could be consented they would be required to demonstrate no significant effect, or appropriately mitigate impacts on the Solent waders and brent goose areas. With these policies in place, it can, therefore, be concluded that the Local Plan has an adequate policy framework to protect European sites, and will therefore ensure there will be no adverse effect on the integrity of European sites with regards to functionally linked habitat.

Atmospheric Pollution

5.61 The relevant part of the Solent Maritime SAC within Chichester (Chichester Harbour) is located within 200m of the A259 and the A27. Five transects have been modelled along these two roads; SLDR, CLSM1, CLSM2, CLSM3 and SOME. The closest points of each transect has been shown within the tabled below. The transects have a baseline nitrogen deposition rate of between 11.83 kgN/ha/yr and 20.92 kgN/ha/yr depending on location. In the most part nitrogen deposition is therefore well below the most stringent critical load (20 kgN/ha/yr) for saltmarsh and intertidal mudflat, the relevant SAC and SPA habitats in these locations according to www.magic.gov.uk. Two locations are just above the critical load in the base year at 20.65 kgN/ha/yr and 20.92 kgN/ha/yr at SLDR and CLSM1 respectively. However, as can be seen in the table, in future years without (Future Year – DN) or even with the Local Plan contribution to the in-combination total (Future Year – DS) all closest points to the roadside are well below the critical load. Going beyond nitrogen and examining NOx and ammonia, at no point on the modelled transects are 2039 concentrations forecast to exceed the respective critical levels of 30 μgm^{-3} and 3 μgm^{-3}.

Table 5. Modelled nitrogen deposition results for road links relevant to Solent European sites (in-combination)

Receptor	Road Link	Critical Load	Base Year	Future Year – DN	Future Year – DS	Absolute Change
CLSM1	A27 (A3(M) Junction)	20	20.92	17.63	18.66	1.02
CLSM2	A259 (Nutbourne)	20	11.83	10.07	10.20	0.13
CLSM3	A259 (Fishbourne)	20	14.18	12.02	13.24	1.22
SOME	A259 (Bosham)	20	14.59	12.48	14.00	1.52
SLDR	A27 (West of A2030)	20	20.65	17.45	18.54	1.10

5.62 This is due to the background deposition rate being likely to decrease rather than increase as improvements in background air quality are achieved in line with central government initiatives and improvements in emission technology (such as the further roll out of the Euro6/VI emissions standard which only became mandatory in 2014/2015). This is supported by oxidised nitrogen deposition and NOx concentration trend data available on APIS for the 1km (for NOx) and 5km (for nitrogen deposition) grid squares (1km for 2019) within which the relevant parts of the SPA/SAC are situated. For example, this indicates that background NOx concentrations reduced between 2014 and 2019 (the most recent year for which data are available) from 13.6 μgm^{-3} to 12.1 μgm^{-3} at transect CLSM3 near Fishbourne. Similarly, background oxidised nitrogen deposition rates (those attributable to combustion such as vehicle exhausts) reduced by 0.2 kgN/ha/yr between 2005 and 2019.

5.63 Given this trend, it is unlikely that increased traffic flows as a result of development in the Local Plan area, even in combination with other projects and plans would result in a sufficiently large increase to push it over the critical load. Furthermore, it is important to note that the experimental studies that underlie conclusions regarding the sensitivity of saltmarsh to nitrogen deposition, and the selection of 20 kgN/ha/yr as the minimum critical load have '… *neither used very realistic N* [nitrogen] *doses nor input methods i.e. they have relied on a single large application more representative of agricultural discharge*'[84], which is far in excess of anything that would be deposited from atmosphere. For coastal saltmarshes such as those for which Solent Maritime SAC is partly designated nitrogen inputs from air are not as important as nitrogen effects from other sources because the effect of any deposition of nitrogen from atmosphere is likely to be dominated by much greater flushes of more readily utilized nitrogen from marine, fluvial or agricultural sources. This is reflected on APIS itself, which states regarding saltmarsh that '*Overall, N deposition* [from atmosphere] *is likely to be of low importance for these systems as the inputs are probably significantly below the large nutrient loadings from river and tidal inputs*'[85]. Moreover, the nature of intertidal saltmarsh in this area means that there is flushing by tidal incursion twice per day. This is likely to further reduce the role of nitrogen from atmosphere in controlling botanical composition.

5.64 Since the NOx concentrations and nitrogen critical load for the relevant roadside habitats in 2040 are not forecast to be exceeded, no adverse effect on the integrity of the coastal European sites will arise, either alone or in combination with other plans and projects.

5.65 Notwithstanding this conclusion, the Local Plan does include several measures that can be expected to result in further improvement in roadside air quality, beyond that achieved by improvements in EU-mandated emissions technology. Air quality mitigation measures can be broadly classified as four types:

- Behavioural measures and modal shift - reducing the amount of traffic overall;
- Traffic management - modifying traffic behaviour to control where emissions are generated;
- Emissions reduction at source - reducing the emissions level per vehicle; and
- Roadside barriers - reducing the impact on the public of emissions.

5.66 The measures identified in the Chichester Local Plan document cover all of these categories, except for the fourth (roadside barriers) which is not within the remit of local planning policy. The Chichester Local Plan document contains positive measures that should aim to mitigate or avoid the likelihood of significant adverse effects from reduced air quality:

- Policy NE21: Air Quality: This policy aims to improve air quality within the district of Chichester. This includes minimising traffic generation, Air Quality Management Areas and air quality assessments.
- Policy T2: Transport and Development: This policy ensures that the development is safe, sustainable, connected and accessible by active and public travel networks and the use of air quality assessments where significant adverse effects are likely.
- Policy T3: Active Travel – Walking and Cycling Provision: Promotes sustainable transport and prioritises walking an cycling to remove vehicles from the roads.
- Policy NE1: Stand-alone Renewable Energy: The provision of renewable energy has the ability to reduce atmospheric pollution contributions.

5.67 These policies form a protective framework to help to reduce atmosphere pollution contributions and, coupled with the results of the air quality modelling, it is thus considered that the Plan will not result in an adverse effect in integrity on this European site.

[84] UK Air Pollution Information System website [accessed 21/04/15]: http://www.apis.ac.uk/node/968
[85] APIS website [accessed 06/06/16]: http://www.apis.ac.uk/node/968

6. Pagham Harbour SPA and Ramsar Site

Introduction

6.1 Pagham Harbour comprises an extensive central area of saltmarsh and tidal mudflats, with surrounding habitats including lagoons, shingle, open water, reed swamp and wet permanent grassland. The intertidal mudflats are rich in invertebrates and algae and provide important feeding areas for birds.

6.2 Most of the site is a Local Nature Reserve managed by West Sussex County Council.

Features of European Interest

6.3 Pagham Harbour SPA qualifies under Article 4.1 of the Birds Directive (79/409/EEC) by supporting populations of European importance of the following species listed on Annex I of the Directive[86].

6.4 During the breeding season:

- Common Tern *Sterna hirundo*: 0.5% of the breeding population in Great Britain (1996); and
- Little Tern *Sternula albifrons*: 0.3% of the breeding population in Great Britain (5-year mean, 1992-1996).

6.5 Over winter:

- Ruff *Philomachus pugnax*: 1.4% of the population in Great Britain (5-year peak mean 1995–1999); and

6.6 This site also qualifies under Article 4.2 of the Directive (79/409/EEC) by supporting populations of European importance of the following migratory species.

6.7 Over winter:

- Dark-bellied Brent Goose *Branta bernicla bernicla*: 0.6% of the population (5-year peak mean 1991/2–1995/6).

6.8 Pagham Harbour Ramsar site qualifies under one of the nine **Ramsar** criteria[87].

Table 6. Pagham Harbour Ramsar site criteria

Ramsar criterion	Description of criterion	Pagham Harbour
6	A wetland should be considered internationally important if it regularly supports 1% of the individuals in a population of one species or subspecies of waterbird.	Dark-bellied brent goose *Branta bernicla bernicla*: 2512 individuals, representing an average of 1.1% of the populations (5-year peak mean 1998/99-2002-03) Black-tailed godwit *Limosa limosa islandica*: 377 individuals, representing an average of 1% of the population (5-year peak mean 1998/99–2002/03).[88]

6.9 It is important to note that this area also includes the Medmerry Realignment Scheme which was created in order to provide compensatory habitat for future effects on the Solent European sites as a

[86] http://jncc.defra.gov.uk/pdf/SPA/UK9012041.pdf [accessed 10/10/2018]
[87] http://jncc.defra.gov.uk/pdf/SPA/UK9012041.pdf [accessed 10/10/2018]
[88] This population was identified subsequent to designation, for possible future consideration.

result of coastal defence work. However, Medmerry has already been discussed extensively in the preceding chapter covering Chichester Harbour SPA and Solent Maritime SAC (since the realignment was intended to compensate for coastal squeeze losses at the Solent Maritime SAC).

Conservation Objectives[89]

6.10 '*Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the aims of the Wild Birds Directive, by maintaining or restoring;*

- The extent and distribution of the habitats of the qualifying features
- The structure and function of the habitats of the qualifying features
- The supporting processes on which the habitats of the qualifying features rely
- The population of each of the qualifying features, and,
- The distribution of the qualifying features within the site.'

Historic Trends and Current Pressures

6.11 The majority of the site is managed as a nature reserve by West Sussex County Council. Historical land drainage for agricultural purposes is being addressed through the Local Nature Reserve Management Plan and Management Agreements, while pollution from inadequate treatment of sewage discharges is reviewed by the Environmental Agency.

6.12 Studies by the Environment Agency indicate that existing sewage discharges are not having a significant adverse effect on the integrity of the Pagham Harbour SPA/Ramsar site.

6.13 The latest Natural England condition assessment of Pagham Harbour SSSI indicated that 93% of the site was in favourable condition. An updated condition assessment is due to take place early 2023.

Key Environmental Conditions

6.14 The following key environmental conditions have been identified for the site:

- Sufficient space between the European site and development to allow for managed retreat of intertidal habitats (to avoid coastal squeeze);
- Maintenance of appropriate hydrological regime;
- Unpolluted water;
- Absence of nutrient enrichment of water;
- Absence of non-native species; and
- Absence of disturbance.

Potential Effects Linking to the Local Plan

6.15 The screening assessment undertaken in the table in Appendix A identifies that the following policies and site allocations have the potential to link to these European designated sites and result in likely significant effects. These are as follows:

Policies

- Policy H1: Meeting Housing Needs
- Policy H2: Strategic Locations / Allocations 2021 – 2039
- Policy H3: Non-Strategic Parish Housing Requirements 2021 – 2039
- Policy H11: Meeting Gypsies, Travellers and Travelling Showpeoples' Needs

[89] [accessed 10/10/2018]

- Policy H12: Intensification Sites
- Policy E1: Meeting Employment Land Needs
- Policy E3: Addressing Horticultural Needs
- Policy E5: Retail Strategy and New Development

Strategic Site Allocations

6.16 There are no strategic site allocations in close proximity to the SPA/Ramsar.

6.17 Potential linking impact pathways are as follows:

- Urbanisation
- Recreational pressure
- Coastal squeeze
- Water quality
- Loss of functionally linked supporting habitat for birds

Appropriate Assessment

Urbanisation

6.18 Policy E3: Addressing Horticultural Needs provides for new areas allocated for horticultural development such as commercial polytunnels and greenhouses and ancillary uses. The policies do not allocate any residential dwellings within these allocations. Although a development management policy is provided (Policy H9: Accommodation for Agricultural, Horticultural and other Rural Workers) to ensure the appropriate scale, positioning and use of existing and new buildings for rural workers. The closest parcel of land allocated for horticultural development is located south west of Sidlesham and is approximately 240m north and west of Pagham Harbour SPA and Ramsar. Urbanisation effects usually confer to impacts such as increase predation of birds from domestic cats, increased wildfire and arson and increased fly tipping. Given that the area allocated south of Sidlesham is very rural and the allocation is not for residential development. However, there may be potential for tied housing to the horticultural business this is likely to be small in scale and it is unlikely that a significant increase in these impacts would occur with any overnight accommodation linked to horticultural development, and as such this impact pathway is not considered to result in adverse effect in integrity of the European sites.

Recreational Pressure

6.19 Chichester District Council commissioned Footprint Ecology to undertake a visitor survey of those parts of the Pagham Harbour SPA/Ramsar site that fell within the Local Plan area[90] . According to Table 14 on page 26 of that report, approximately 53% of winter visitors and 76% of summer visitors to the western (Chichester District) parts of Pagham Harbour come from within the District (Selsey, Chichester City, Sidlesham, Lodsworth, Bosham, Mundham, Hunston, Emsworth/Southbourne and Midhurst). Three settlements (Selsey, Chichester and Sidlesham) make by far the greatest contribution to visitors to Pagham Harbour, accounting for 48% of all winter visitors and 66% of all summer visitors. Of these three settlements, Selsey is responsible for the majority of visitors. Moreover, approximately 96% of visitors with dogs (who are likely to have the greatest potential disturbance effect on SPA birds) live south of Chichester, emphasising the local catchment of the site. Policy NE7 (Development and Disturbance of Birds in Chichester and Langstone Harbour, Pagham Harbour Solent and Dorset Coast Special Protection Areas and Medmerry Compensatory Habitat) of the Chichester Local Plan identifies the core recreational catchment on the Chichester side of the harbour as 3.5km and states that net increases in residential development within that zone will be required to provide mitigation for the SPA/Ramsar site.

[90] Cruickshanks, K. & Liley, D. (2012) Pagham Harbour Visitor Surveys. Unpublished report by Footprint Ecology. Commissioned by Chichester District Council.

6.20 Work was completed in 2010 by Arun District Council regarding visitor surveys for Pagham Harbour SPA. In summary, this work identified that 8.7% of the visitors to the Arun sections of the SPA/Ramsar site come from within 500m, 49.7% come from within 5km, 52.9% come from within 6km and 57.4 % come from within 10km. Beyond 10km the visitors origins are very dispersed. This indicates that the largest single contribution to visits to the SPA comes from the 5-6km zone. The study focused on visitors from Arun District.

6.21 Other settlements (including the other settlements mentioned above and relatively large nearby settlements in adjacent districts such as Bognor Regis) make a very small contribution in comparison e.g. 1-3% of visitors each to the parts of Pagham Harbour within Chichester District.

6.22 Clearly therefore, large amounts of new development at Selsey (in particular), Chichester city or Sidlesham would potentially have the greatest effect on visitor pressure within Pagham Harbour. The Chichester Local Plan currently does not plan for any strategic residential development in settlements located within 3.5km of the Harbour. In terms of Parish allocations, neither Selsey nor Sidlesham are being allocated further housing within the Local Plan and a total of 270 dwellings have been allocated for Chichester city (Policy A2) and a further 180 for Southern Gateway (Policies A4 & A5), however, Chichester city and Southern Gateway are outside the 3.5km core catchment area and therefore any contribution from Chichester city and Southern Gateway would be insignificant with regards to threats on the integrity of the SPA and Ramsar. Additionally, one Gypsy and Travellers sites (Land at Lakeside Barn (4 pitches) has been allocated north west of North Mundham on the east side of Hunston Road, south of Chichester City and within 3.5km of Pagham Harbour. Although a small number of pitches, these will contribute to the over all in-combination effect of recreation on the Pagham SPA and Ramsar.

6.23 There will of course be additional visitors due to development in surrounding authorities 'in combination' with that in the Local Plan area as well. However, the Footprint Ecology survey indicates that beyond the Local Plan area points of visitor origin to the Chichester parts of Pagham Harbour become highly dispersed and even larger settlements contribute a relatively small percentage of current visitors to the SPA/Ramsar site. The settlements outside the Local Plan area that were identified as making the highest contribution to current visitor activity within the Chichester parts of the SPA/Ramsar site were:

- Bognor Regis – 3% of winter visitors and 4% of summer visitors;
- Southampton, Hayling Island, Richmond-upon-Thames, Epsom & Ewell and Westergate/ Barnham/ Yapton – each of these settlements contributed 2% of winter visitors according to the survey and were dispersed across the south-east including London; no summer visitors covered by the survey came from these settlements. It can reasonably be concluded that most if not all of the visitors from these settlements were birders rather than conventional recreational visitors;
- Reigate/ Redhill and Merton - each of these settlements contributed 2% of summer visitors according to the survey and were dispersed across the south-east including London; no winter visitors covered by the survey came from these settlements. It can reasonably be concluded that the visitors from these settlements were holidaymakers, birdwatchers or similar.

6.24 All other settlements contributed 1% or less to visitor activity within the SPA/Ramsar site. At first glance it seems unusual that Bognor Regis in Arun district contributed so few visitors to the SPA/Ramsar site according to this survey, since it is by far the largest settlement near the site. However, the survey was specifically designed to target people coming from the Chichester district side and there were no survey locations on the Arun district side which explains the apparently low visitor contribution of Bognor Regis. The aforementioned visitor surveys commissioned by Arun Council have already demonstrated that Bognor Regis is the main contributory settlement to recreational activity on the eastern (Arun district) side of the SPA/Ramsar site.

6.25 According to the Arun Local Plan[91] there will be considerable new housing development at Bognor Regis from the combination of a 2,500 settlement west of Bersted (SD3) which at the time of writing has outline permission, 400 dwellings in Pagham South (SD1) and 800 dwellings in Pagham North (SD2) which will be over three sites all of which have outline permission and one with reserved matters[92].. This will clearly operate 'in combination' with any development within the Chichester District.

[91] Adopted Local Plan.pdf (arun.gov.uk) [Accessed 13/01/2022]
[92] Development sites | Arun District Council [Accessed 13/01/2022]

6.26 The Local Nature Reserve Management Plan states that 150,000 visits are made to Pagham Harbour each year. Provided that visitors adhere to designated access routes, there was not perceived to be an issue with disturbance (as of 2007). However, the Management Plan notes that any further increased numbers of visitors could create damaging levels of disturbance. Car parking arrangements (numbers and locations) help to limit the potential for excessive visitor presence. Nonetheless, the Management Plan does note that there are issues such as four-wheel drive and motorbike usage, and factors such as dog-fouling that do present threats to reserve integrity.

6.27 The implications of the survey results in terms of whether an adverse effect on integrity would result in the absence of mitigation need to be considered alongside the survey undertaken for Arun district. Given the current uncertainties over this issue therefore, the Council has taken a precautionary approach for the Local Plan and assumed that the same type of strategy devised for Chichester Harbour would also have to be extended to Pagham Harbour, principally with regard to development at Selsey (which has been identified in the survey as being the source of almost half of all winter visitors to the Chichester part of the SPA/Ramsar site and over half of all summer visitors).

6.28 This is reflected in several policies of the Chichester Local Plan:

- Policy NE7: Development and Disturbance of Birds in Chichester and Langstone Harbours, Pagham Harbour, Solent and Dorset Coast Special Protection Areas and Medmerry Compensatory Habitat:

  'Net increases in residential development within the 3.5km 'Zone of Influence' are likely to have a significant effect on the Pagham Harbour SPA either alone or in-combination with other developments and will need to be subject to the provisions of Regulation 63 of the Conservation of Habitats and Species Regulations 2017 (as amended). In the absence of appropriate avoidance and/or mitigation measures that will enable the planning authority to ascertain that the development would not adversely affect the integrity of the SPA, planning permission will not be granted because the tests for derogations in Regulation 64 are unlikely to be met. Furthermore, such development would not have the benefit of the presumption in favour of sustainable development in the National Planning Policy Framework.

  Net increases in residential development, which incorporates appropriate avoidance/mitigation measures, which would avoid any likelihood of a significant effect on the SPA, will not require 'appropriate assessment'. Appropriate avoidance/mitigation measures that are likely to allow the planning authority to ascertain that there will be no adverse effect on the integrity of the SPA will comprise:

  a) A contribution towards the appropriate management of the Pagham Harbour Local Nature Reserve through the joint Chichester and Arun Scheme of Mitigation in accordance with the LNR Management Plan; or

  b) A developer provided package of measures associated with the proposed development designed to avoid any significant effect on the SPA; or

  c) A combination of measures in (a) and (b) above.

  Avoidance/mitigation measures will need to be phased with development and shall be maintained in perpetuity. All mitigation measures in (a), (b) and (c) above must be agreed to be appropriate by Natural England in consultation with owners and managers of the land within the SPA.

  The provisions of this policy do not exclude the possibility that some residential schemes either within or outside the Zone of Influence might require further assessment under the Habitats Regulations. For example, large schemes, schemes proposing bespoke or alternative avoidance/mitigation measures, or schemes proposing an alternative approach to the protection of the SPAs and/or the Compensatory Habitats where there is survey or other evidence that the site is used as supporting habitats by SPA species, including Brent Geese. Such schemes will be assessed on their own merits, under Regulation 63 (appropriate assessment), and subject to advice from Natural England.'

6.29 Other protective measures included within policy text include:

- Policy NE5: Biodiversity and Biodiversity Net Gain states: 'All development shall ensure the conservation, protection, enhancement and restoration of biodiversity avoiding any adverse impact on the condition and recovery of all types of nature conservation sites, habitats and species within their ecological networks including:

a) *Internationally designated sites (SPA, SAC, Ramsar)*

b) *Irreplaceable habitats, including ancient woodland and ancient or veteran trees*

c) *Nationally designated sites, such as Sites of Special Scientific Interest (SSSI), National Nature Reserves (NNR) and Marine Conservation Zones (MCZ)*

d) *Riverine and Marine Habitats*

e) *Priority Habitats and Species*

f) *Biodiversity Opportunity Areas (BOA)*

g) *Locally designated sites, such as Sites of Nature Conservation Importance and Local Nature Reserves*

h) *Wildlife corridors and steppingstones*

Opportunities to conserve, protect, enhance and recover biodiversity and contribute to wildlife and habitats connectivity will be undertaken, including the preservation, restoration and recreation of priority habitats, ecological networks and the protection and recovery of priority species populations'.'

- Policy NE6: Chichester's Internationally and Nationally Designated Habitats states: 'Development will only be permitted where it would not lead to adverse effect upon the integrity, either alone or in-combination, directly or indirectly, on internationally, European and nationally important sites'.
- Policy I1: Infrastructure Provision: this policy provides for the timely delivery of infrastructure. This may include recreational provision to ensure no adverse effects result.

6.30 The neighbouring District of Arun has also developed the following series of mitigation and avoidance proposals relating to housing within Arun district, as expressed in their Local Plan:

- Wardening - increasing the number of wardens at the site to ensure that people do not stray into sensitive areas.
- Access management and site protection - improving or closing paths, erecting fencing or establishing other barriers, in order to prevent or reduce access to sensitive areas
- Habitat improvements - mitigating against any disturbance to birds, including their nesting, roosting or feeding habitats which could instead be enhanced or created.
- Interpretation, education and signage - improving visitor facilities and informing visitors of the requirement to protect the wildlife of the site and outlining how best to achieve this;
- Monitoring of wildlife and visitor numbers and the effect that disturbance has on wildlife, so that access management can be modified as appropriate.

6.31 Policy ENV DM2 of the Arun Local Plan goes on to describe a series of distance bands, and the mitigation or other measures which development within those zones may trigger and which broadly fit with the core catchment of the SPA/Ramsar site as identified in the Footprint Ecology visitor survey:

- Within Zone A (0-400m) as identified on the Policies Map, development will only be permitted in exceptional circumstances where the developer is able to demonstrate there will be no detrimental effect on Pagham Harbour, including non-native species and the water environment. Regard shall also be had to tests 1-4 as set out in Policy DM1 (Designated Sites of Biodiversity or Geological Importance).
- Within Zone B (0 – 5km) all new residential development will be required to:
    - Make developer contributions towards the agreed strategic approach to access management at Pagham Harbour; and
    - Create easily accessible new green spaces for recreation within or adjacent to the development site These shall be capable of accommodating the predicted increases in demand for local walking, including dog walking. Good pedestrian links shall be provided between housing areas and new and existing green space in order to discourage car use.(c) Major developments (as defined in GDPO 1995 as amended) taking place outside Zone B and close to its boundary will be considered on a case by case basis to determine any potential effects on Pagham Harbour, and the need for any avoidance or mitigation measures.

6.32 The Chichester Local Plan broadly reflects the Arun Local Plan approach by including protective policy. Policy NE7: Development and Disturbance of Birds in Chichester and Langstone Harbours, Pagham Harbour, Solent and Dorset Coast Special Protection Areas and Medmerry Compensatory Habitat specifically addresses that residential development within the established 3.5km zone of influence is likely to have adverse impacts to the integrity of Pagham Harbour SPA be subject to the provisions of Regulation 63 of the Conservation of Habitats and Species Regulations 2017 and will require the utilisation of mitigation, as reflected earlier in this discussion.

6.33 The different distances used in the Chichester Local Plan(3.5km compared to 5km for Arun District) reflect the visitor survey results for the Chichester District part of Pagham Harbour.

6.34 Given the application of a dedicated policy to protect Pagham Harbour and Medmerry and ensure the delivery of improved access management of the Harbour in line with any increase in population within the core catchment it is considered that there will be no adverse effect on the integrity of the Harbour as a result of the Chichester Local Plan. The assessment already factors in development within Arun District and therefore no separate assessment 'in combination' is necessary.

Recommendation:

6.35 **The following recommended policy text changes are made to ensure full robustness of the Local Plan Policy Framework :**

- Policy E9: Caravan and Camping Sites: To ensure this policy provides a robust framework to ensure the protection of European sites, it is recommended that policy text is amended as follows (amendments in **bold**, addition underlined, removal ~~strikethrough~~):

*'**~~Whether there is a requirement~~** **The degree of protection considered desirable in order** to avoid disturbance to sensitive sites of ecological value (including ensure no adverse effects on integrity of sensitive European designated wildlife sites occurs) or to protect the tranquillity and character of the countryside, Chichester Harbour Area of Outstanding Natural Beauty and the setting of the National Park, Pagham Harbour and the undeveloped coast; and'*

- Policy NE12: Development around the Coast: It is recommended that point 1 and 2 is amended as follows (amendments in **bold**, addition underlined, removal ~~strikethrough)~~

'*1. There are no harmful effects on or net loss of nature conservation or areas of geological importance **~~in particular~~** within the Chichester and Pagham Harbours and Medmerry Realignment (including no adverse effects on the associated European designated sites);*

*2. **~~If~~** **T**he development provides recreational opportunities that **~~they~~** do not adversely affect the character, environment and appearance of the coast and Chichester Harbour Area of Outstanding Natural Beauty or **~~damage~~** **result in adverse effects on** the integrity to European designated wildlife sites'*

Coastal Squeeze

6.36 No new development areas identified in the Local Plan would constrain any managed retreat that may be required in the future to allow the SPA/Ramsar site to respond to sea level rise, as they are either over 400m from the SPA/Ramsar site or lie landwards of existing housing. Moreover, none would require the coastal defence policies identified in the Shoreline Management Plan to be altered. There are no other plans or projects which would operate 'in combination' with the Chichester Local Plan.

Reduced Water Quality

6.37 The area of Hunston is served by Pagham WwTW that discharges into Pagham Rife which flows into Pagham Harbour European site. The areas of East Wittering/ Bracklesham, Selsey and Birdham are served by Sidlesham WwTW which flows into Broad Rife, upstream of Pagham Harbour European site.

6.38 Chichester District Council has commissioned a Water Quality Assessment[93], which identifies that due to the distance from the discharge points at Pagham and Sidlesham WwTW to the European sites, and the processes of mixing and dilution, the contribution of nitrate loading in the Pagham Harbour is 'potentially low'. The Assessment concludes that no mitigation measures are required and as such

[93] AMEC Foster Wheeler (August 2018). Chichester District Council Water Quality Assessment. Final Report.

development within those settlements that are served by both Pagham and Sidlesham WwTW would not adversely affect the water quality of Pagham Harbour European site. Nonetheless, the Assessment identifies potential measures that could be put in place to limit nitrate emissions such as demand management and reduce water usage.

6.39 Furthermore, the Local Plan provides policy to provide protection to European sites as a result of adverse water quality as follows:

- Policy NE16: Water Management and Water Quality states: '*Development proposals will be permitted that demonstrate: a) the development has no adverse impact on the quality of water bodies and groundwater, nor will it prevent future attainment of favourable conservation status, taking into account agreed mitigation measures where necessary. b) the development contributes positively to the water environment and its ecology and does not adversely affect surface water and groundwater quality*.'
- Policy NE5: Biodiversity and Biodiversity Net Gain states: '*All development shall ensure the conservation, protection, enhancement and restoration of biodiversity avoiding any adverse impact on the condition and recovery of all types of nature conservation sites, habitats and species within their ecological networks including:*
    - Internationally designated sites (SPA, SAC, Ramsar)
    - Irreplaceable habitats, including ancient woodland and ancient or veteran trees
    - Nationally designated sites, such as Sites of Special Scientific Interest (SSSI), National Nature Reserves (NNR) and Marine Conservation Zones (MCZ)
    - Riverine and Marine Habitats
    - Priority Habitats and Species
    - Biodiversity Opportunity Areas (BOA)
    - Locally designated sites, such as Sites of Nature Conservation Importance and Local Nature Reserves
    - Wildlife corridors and steppingstones

  Opportunities to conserve, protect, enhance and recover biodiversity and contribute to wildlife and habitats connectivity will be undertaken, including the preservation, restoration and recreation of priority habitats, ecological networks and the protection and recovery of priority species populations'
- Policy I1: Infrastructure Provision: provides for the timely delivery of infrastructure. This would include water treatment infrastructure to ensure no adverse effects result.
- Policy NE6: Chichester's Internationally and Nationally Designated Habitats states: 'Development will only be permitted where it would not lead to adverse effect upon the integrity, either alone or in-combination, directly or indirectly, on internationally, European and nationally important sites'.

6.40 With this wide ranging provision of policy framework to ensure the protection of European sites in it is considered that this impact pathway will not result in adverse effect on the integrity of these European sites.

Loss of Functionally Linked Supporting Habitat for Birds

6.41 Pagham Harbour SPA/Ramsar is partially notified for its breeding population of Common and Little tern species and over-wintering populations of Brent geese and wading bird species including ruff. However, studies[94] have identified that many feeding and roosting sites around the European Site fall outside of the statutory nature conservation site boundaries.

6.42 A single policy has been identified to provide development within the Plan and which due to the location of an allocation could contain functionally linked supporting habitat for over-wintering populations of Brent geese and wading bird species. These are:

[94] King, D. (2010) Solent Waders and Brent Goose Strategy 2010. Hampshire and Isle of Wight Wildlife Trust.

6.43 Policy E3 Addressing Horticultural Needs – the allocation in question being a horticultural development south west of Sidlesham and approximately 250m north and 350m west of the SPA and Ramsar site. In the HRA undertaken for Chichester District Council in 2014 it was reported that the Council had *'indicated in discussions over this HRA that policy recommendations to protect locations outside of the SPA/ Ramsar site of value to Brent geese and waders would be addressed within the Site Allocations DPD and Neighbourhood Plans*'.

6.44 Nonetheless, policy within the Local Plan includes policy that provides protection to European designated sites as follows:

6.45 Policy NE5: Biodiversity and Biodiversity Net Gain states: *'All development shall ensure the conservation, protection, enhancement and restoration of biodiversity avoiding any adverse impact on the condition and recovery of all types of nature conservation sites, habitats and species within their ecological network… Opportunities to conserve, protect, enhance and recover biodiversity and contribute to wildlife and habitats connectivity will be undertaken, including the preservation, restoration and recreation of priority habitats, ecological networks and the protection and recovery of priority species populations;'*

6.46 The Local Plan also provides Policy NE7: Development and Disturbance of Birds in Chichester and Langstone Harbours, Pagham Harbour, Solent and Dorset Coast Special Protection Areas and Medmerry Compensatory Habitat which states in relation to the Solent Waters and Brent Goose sites: '*The provisions of this policy do not exclude the possibility that some residential schemes either within or outside the Zone of Influence might require further assessment under the Habitats Regulations. For example, large schemes, schemes proposing bespoke or alternative avoidance/mitigation measures, or schemes that impinge on the supporting habitats identified by the Solent Waders and Brent Goose Strategy. Such schemes will be assessed on their own merits under Regulation 63 (appropriate assessment), and, subject to advice from Natural England. Where mitigation for any impact upon supporting habitats is required this should follow the guidance given in the Solent Waders and Brent Goose Strategy*'. And goes into further detail within the supporting text to say '*For both Chichester and Pagham Harbours some of the bird species for which they are designed, Brent Geese in particular, use functionally linked supporting habitats around the SPA for feeding and roosting. Developments on or adjacent to these areas can have an impact on the SPAs separate to and additional to the impact of recreational disturbance. For Chichester and Langstone Harbours SPA, the Solent Waders and Brent Goose Strategy (https://solentwbgs.wordpress.com/page-2/) identifies the areas of supporting habitat and grades them into four categories: core areas, primary support areas, secondary support areas and low use areas. Interim guidance on offsetting and mitigation requirements has been produced*.[95]'

Recommendation:

6.47 Although Policy E4 Horticultural Development has been screened out of the HRA as not causing likely significant effect as a development management policy, it sets out the detailed criteria against which a given proposal within the HDAs would be deemed acceptable. Therefore, to ensure protection for European sites with regards to development allocated within Policy E3 Addressing Horticultural Needs, additional wording is required within Policy E4**. It is recommended that Policy E4 Horticultural Development include the following additions to the policy: '*Ensure that development avoids harm to protected species and existing important habitats features and facilitates the achievement of biodiversity net gain and facilitates the creation of high levels of habitat connectivity within the site and to the wider Green Infrastructure network and identified Strategic Wildlife Corridors within the parish. This includes the provision of appropriate buffers as necessary in relation to important habitats which are being retained and/or created.**

Successfully avoid and/or mitigate potential impacts on the Pagham SPA/Ramsar, including contributing to any strategic access management issues (including on-site mitigation where required as part of the Habitats Regulations Assessment), and potential for loss of functionally linked supporting habitat.'

6.48 Provided the above recommendation is included within the Plan, it can be concluded that the Local Plan will not result in adverse effect in integrity of the European site.

[95] swbgs-mitigation-guidance-oct-2018.pdf (wordpress.com) [Accessed 28/11/2022]

Atmospheric Pollution

6.49 The relevant part of the Pagham Harbour SPA and Ramsar site is located within 200m of the B2145. Modelling was conducted for two transects one to the east and one to the west of the road. These have a nitrogen deposition rate of 16.77 kgN/ha/yr to the east on transect PGHR1 and 15.68 kgN/ha/yr to the west on transect BGHR2. The first point for each transect is shown within the Table below. Current nitrogen deposition is therefore well below the most stringent critical load (20 kgN/ha/yr) for saltmarsh and intertidal mudflat, the relevant SPA and Ramsar site habitats in this location according to www.magic.gov.uk and continues to be below critical load in-combination either without the Chichester Local Plan (Future Year – DN) or with the Chichester Local Plan (Future Year – DS) as shown in Table 8, below. Going beyond nitrogen and examining NOx and ammonia, at no point on the modelled transects are 2040 concentrations forecast to exceed the respective critical levels of 30 μgm^{-3} and 3 μgm^{-3}.

Table 7. Modelled nitrogen deposition results for road links relevant to Pagham Harbour (in-combination)

Receptor	Road Link	Critical Load	Base Year	Future Year – DN	Future Year – DS	Absolute Change
PGHR1	B2145 (East)	20	16.77	14.59	18.05	3.46
PGHR2	B2145 (West)	20	15.68	13.57	16.50	2.94

6.50 Moreover, this background deposition rate is likely to decrease rather than increase as improvements in background air quality are achieved in line with central government initiatives and improvements in emission technology (such as the further roll out of the Euro6/VI emissions standard which only became mandatory in 2014/2015). This is supported by oxidised nitrogen deposition and NOx concentration trend data available on APIS for the 1km (for NOx) and 5km (for nitrogen deposition) (1km for 2019) grid squares within which the relevant parts of the SPA/SAC are situated. This indicates that background NOx concentrations reduced between 2014 and 2019 (the most recent year for which data are available) from 12.4 μgm^{-3} to 11.2 μgm^{-3}. Similarly, background oxidised nitrogen deposition rates (those attributable to combustion such as vehicle exhausts) reduced by 1.6 kgN/ha/yr between 2005 and 2019.

6.51 Given this trend, it is unlikely that increased traffic flows as a result of development in the Local Plan area, even in combination with other projects and plans would result in a sufficiently large increase to push it over the critical load, as has been shown in the above table. Furthermore, it is important to note that the experimental studies that underlie conclusions regarding the sensitivity of saltmarsh to nitrogen deposition, and the selection of 20 kgN/ha/yr as the minimum critical load have '… *neither used very realistic N* [nitrogen] *doses nor input methods i.e. they have relied on a single large application more representative of agricultural discharge*'[96], which is far in excess of anything that would be deposited from atmosphere. For coastal saltmarshes such as those for which the species designated within the Pagham Harbour SPA rely on, nitrogen inputs from air are not as important as nitrogen effects from other sources because the effect of any deposition of nitrogen from atmosphere is likely to be dominated by much greater flushes of more readily utilized nitrogen from marine, fluvial or agricultural sources. This is reflected on APIS itself, which states regarding saltmarsh that '*Overall, N deposition* [from atmosphere] *is likely to be of low importance for these systems as the inputs are probably significantly below the large nutrient loadings from river and tidal inputs*'[97]. Moreover, the nature of intertidal saltmarsh in this area means that there is flushing by tidal incursion twice per day. This is likely to further reduce the role of nitrogen from atmosphere in controlling botanical composition.

6.52 Since the NOx concentrations and nitrogen critical load for the relevant roadside habitats in 2040 are not forecast to be exceeded, no adverse effect on the integrity of the coastal European sites will arise, either alone or in combination with other plans and projects.

6.53 Notwithstanding this conclusion, the Local Plan does include several measures that can be expected to result in further improvement in roadside air quality, beyond that achieved by improvements in EU-

[96] UK Air Pollution Information System website [accessed 21/04/15]: http://www.apis.ac.uk/node/968
[97] APIS website [accessed 06/06/16]: http://www.apis.ac.uk/node/968

mandated emissions technology. Air quality mitigation measures can be broadly classified as four types:

- Behavioural measures and modal shift - reducing the amount of traffic overall;
- Traffic management - modifying traffic behaviour to control where emissions are generated;
- Emissions reduction at source - reducing the emissions level per vehicle; and
- Roadside barriers - reducing the impact on the public of emissions.

6.54 The measures identified in Chichester Local Plan document cover all of these categories, except for the fourth (roadside barriers) which is not within the remit of local planning policy. The Chichester Local Plan document contains positive measures that should aim to mitigate or avoid the likelihood of significant adverse effects from reduced air quality:

- Policy NE21: Air Quality: This policy aims to improve air quality within the district of Chichester. This includes minimising traffic generation, Air Quality Management Areas and air quality assessments.
- Policy T2: Transport and Development: This policy ensures that the development is safe, sustainable, connected and accessible by active and public travel networks and the use of air quality assessments where significant adverse effects are likely.
- Policy T3: Active Travel – Walking and Cycling Provision: Promotes sustainable transport and prioritises walking an cycling to remove vehicles from the roads.
- Policy NE1: Stand-alone Renewable Energy: The provision of renewable energy has the ability to reduce atmospheric pollution contributions.

6.55 These policies form a protective framework to help to reduce atmosphere pollution contributions and, coupled with the results of the air quality modelling, it is thus considered that the Plan will not result in an adverse effect in integrity on this European site.

7. Ebernoe Common SAC

Introduction

7.1 Ebernoe Common is an internationally important example of ancient woodland. It contains a wide range of structural and vegetation community types which have been influenced in their development by differences in the underlying soils and past management. The native trees, particularly those with old growth characteristics, support rich lichen and fungal communities and a diverse woodland breeding bird assemblage. Nationally important maternity roosts for barbastelle and Bechstein's bat occur within the woodland.

7.2 At its closest point the SAC lies adjacent to the Local Plan area in the vicinity of Kirdford, Plaistow and Ifold.

Features of European Interest[98]

7.3 Ebernoe Common SAC qualifies as an SAC for both habitats and species. Firstly, the site contains the following Habitats Directive Annex I habitat:

- Beech forests on acid soils.

7.4 Secondly, the site contains the following Habitats Directive Annex II species:

- Barbastelle *Barbastella barbastellus*; and
- Bechstein's bat *Myotis bechsteinii*.

Historic Trends and Current Conditions

7.5 Ebernoe Common SAC is owned and managed by Sussex Wildlife Trust (SWT). There is evidence that the Common has contained a mixture of open pasture and high forest for centuries. Ebernoe Nature Reserve is an Open Access site and is fairly well used (SWT estimate up to 3,000 visitors per annum)[99].

7.6 In the most recent Natural England condition assessment process, 93% of Ebernoe Common SSSI was considered to be in favourable condition, with the remainder recovering from unfavourable status.

Conservation Objectives[100]

7.7 '*With regard to the SAC and the natural habitats and/or species for which the site has been designated (the 'Qualifying Features' listed below), and subject to natural change;*

- *Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring; The extent and distribution of qualifying natural habitats and habitats of qualifying species*
- *The structure and function (including typical species) of qualifying natural habitats*
- *The structure and function of the habitats of qualifying species*
- *The supporting processes on which qualifying natural habitats and the habitats of qualifying species rely*
- *The populations of qualifying species, and,*
- *The distribution of qualifying species within the site'*.

[98] http://publications.naturalengland.org.uk/file/6245694033625088 [accessed 15/10/2018]
[99] Monk-Terry, M. & Lyons, G. Sussex Wildlife Trust Ebernoe Nature Reserve Management Plan 2010-2015.
[100] Natural England. European Site Conservation Objectives for Ebernoe Common Special Area of Conservation (2014). Available online: http://publications.naturalengland.org.uk/publication/6255629165395968 [Accessed: 15/10/2018].

Key Environmental Conditions

7.8 The key environmental conditions that support the features of European interest have been defined as:

- Appropriate management;
- Minimal atmospheric pollution – may increase the susceptibility of beech trees to disease and alter epiphytic communities;
- Absence of disturbance;
- In a wider context, bats require good connectivity of landscape features to allow foraging and commuting;
- Both bat species have close association with woodland. Areas of undesignated woodland adjacent to SAC may be of most importance to population; and
- Barbastelles require a constant humidity around their roosts; any manipulation of the shrub layer must be carefully considered.

Potential Effects Linking to the Local Plan

7.9 The screening assessment undertaken in the table in **Appendix A** identify that following policies and site allocations have the potential to link to this European designated site and result in likely significant effects. These are as follows:

Policies

- Policy H1: Meeting Housing Needs
- Policy H2: Strategic Locations / Allocations 2021 – 2039
- Policy H3: Non-Strategic Parish Housing Requirements 2021 – 2039
- Policy H11: Meeting Gypsies, Travellers and Travelling Showpeoples' Needs
- Policy H12: Intensification Sites
- Policy E1: Meeting Employment Land Needs
- Policy E3: Addressing Horticultural Needs
- Policy E5: Retail Strategy and New Development
- Policy A15: Loxwood

Site Allocations

7.10 The Local Plan makes no strategic site allocations within proximity of this SAC site. However, the Local Plan does allocate a quantum of dwellings to Parishes within proximity to the SAC. These dwellings will be allocated sites within subsequent Neighbourhood Plans:

- 220 dwellings to Loxwood (Policy A15);
- 75 dwellings to Wisborough Green (Policy H3);
- 50 dwellings to Kirdford (Policy H3); and,
- 25 dwellings to Plaistow and Ifold (Policy H3)

7.11 Potential linking impact pathways are as follows:

- Disturbance of bat flight lines through development within the north of the Local Plan area; and
- Potential air quality impacts associated with traffic.

Appropriate Assessment

Disturbance of Bat Flight Lines

7.12 Ebernoe Common is an exceptional site for both Bechstein's and Barbastelle bats. As discussed in Chapter 3, key conservation areas have been determined as follows:

- A 'key conservation area' – for any development proposed within 6.5km of the SAC, all impacts will be considered; and
- A 'wider conservation area' – for any development proposed 6.5-12km from the SAC, significant impacts or severance of flightlines will be considered. This area encompasses the full extent from the SAC in which bats may forage.

7.13 The Local Plan does not allocate any specific sites for new residential development north of the South Downs National Park Authority boundary within either the key conservation area or wider conservation area. However, it does allocate a quantum of growth to the Loxwood, Wisborough Green, Kirdford and Plaistow and Ifold parishes (220 dwellings to Loxwood, 75 to Wisborough Green, 50 for Kirdford and 25 to Plaistow and Ifold). Actual sites will be identified in due course through the respective neighbourhood plans or a subsequent Site Allocation DPD. Clearly, the entirety of all three parishes lies within the 12km zone and much lies within the 6.5km zone. Therefore, they could impact upon the supporting habitat of bats associated with Ebernoe Common SAC. The same applies to any windfall development that could feasibly occur within the northern part of the plan area. However, before adoption, all Neighbourhood Plans that come forward will be subject to their own HRA which will ensure that impacts on functionally linked habitat are minimised and that guidance is included ensuring surveys for significant areas of functionally-linked habitat, and their preservation where identified. This could be a policy in the Neighbourhood Plan, if the Neighbourhood Plan is likely to be adopted before the Local Plan, or could be a reference to a policy within the adopted Local Plan.

7.14 Policy NE8: Trees, Hedgerows and Woodlands of the Chichester Local Plan outlines that hedgerows are identified as a priority habitat requiring conservation action under the UK Biodiversity Action Plan. Therefore, all development must be undertaken in accordance with the British Standard 5837 and all tree works must be carried out in accordance with British Standard 3998. This is set out in the following policy:

- '*Development proposals will be granted where it can be demonstrated that all of the following criteria have been met;*
  - *Proposals conserve and, where appropriate, enhance existing valued and protected trees, hedgerows and woodlands;*
  - *Development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and trees; veteran trees; protected trees, groups of trees and woodland and hedgerows) should be refused unless there are wholly exceptional reasons and a suitable compensation strategy in accordance with relevant legislation, policy and guidelines;*
  - *Loss or damage of woodland and hedgerows that are priority habitats and non-protected but valued trees, woodland, community orchards, and all hedgerows should be avoided, and if demonstrated as being unavoidable, appropriate mitigation measures are provided;*
  - *Proposals should maximise opportunities for planting of new trees, woodlands and hedgerows to contribute to biodiversity net gain, green infrastructure and nature recovery strategies and networks. In addition, proposals will be required to plant two trees for each one lost through development; provide new planting to thicken existing hedgerows, and fill in all gaps in all hedgerows;*
  - *Proposals should have a minimum buffer zone of 15 metres from the boundary of ancient woodland or veteran trees to avoid root damage (known as the root protection area);*
  - *All major development proposals will be required to provide street tree planting;*
  - *Development proposals must demonstrate that appropriate protection measures are in place prior to any work on site and throughout the development process as part of a tree protection plan;*

- *Suitable opportunities for the restoration, enhancement or planting of trees, woodland, and hedgerows are identified and incorporated into a comprehensive landscaping plan; and*
- *Where appropriate, the Council will seek minimum five-year maintenance and management plans to accompany the soft landscaping proposals.*
- *Trees proposed for landscaping and replacement planting should be selected from a diverse range and variety of native species to help provide long-term resilience to pests, diseases and climate change.*

The council will consider development proposals against the requirements and standards contained in legislation as well as current local and national guidance and practice'

7.15 Since hedgerows and woodlands are key supporting habitats used by bat species to facilitate movement between foraging habitats, this policy provides for adequate mitigation for the protection of bat flightlines within the Local Plan area. However, barbastelle bats will also forage in and around other habitats (particularly wetlands and flood meadows) if their prey abundance is sufficiently great.

7.16 Protection of these habitats would be facilitated by Policy NE5: Biodiversity and Biodiversity Net Gain states: '*All development shall ensure the conservation, protection, enhancement and restoration of biodiversity avoiding any adverse impact on the condition and recovery of all types of nature conservation sites, habitats and species within their ecological networks including:*

- *Internationally designated sites (SPA, SAC, Ramsar)*
- *Irreplaceable habitats, including ancient woodland and ancient or veteran trees*
- *Nationally designated sites, such as Sites of Special Scientific Interest (SSSI), National Nature Reserves (NNR) and Marine Conservation Zones (MCZ)*
- *Riverine and Marine Habitats*
- *Priority Habitats and Species*
- *Biodiversity Opportunity Areas (BOA)*
- *Locally designated sites, such as Sites of Nature Conservation Importance and Local Nature Reserves*
- *Wildlife corridors and steppingstones*

Opportunities to conserve, protect, enhance and recover biodiversity and contribute to wildlife and habitats connectivity will be undertaken, including the preservation, restoration and recreation of priority habitats, ecological networks and the protection and recovery of priority species populations'.'

7.17 Finally, Policy NE6: Chichester's Internationally and Nationally Designated Habitats states with regards to The Mens SAC, Ebernoe Common SAC and Singleton and Cocking Railway Tunnels SAC: "*Development proposals on greenfield sites and sites that support, or are in close proximity to, suitable commuting and foraging habitats (including mature vegetative linear features such as woodlands, hedgerows, riverine and wetland habitats) within the following ranges (as shown on the Policies Map) should have due regard to the possibility that barbastelle and Bechstein's bats will be utilising the site. Such proposals will be required to incorporate necessary surveys and ensure that key features (foraging habitat and commuting routes) are retained, in addition to a suitable buffer*[101] *to safeguard against disturbance:*

- *Key Conservation Area – 6.5km: all impacts to bats must be considered given that habitats within this zone are considered critical for sustaining the populations of bats within the SACs; and*
- *Wider Conservation Area – 12km: significant impacts on severance to flight lines to be considered*.

Regard should be had to the Sussex Bat Special Area of Conservation Planning and Landscape Scale Enhancement Protocol (2018), or any subsequent equivalent document".

7.18 Given the rarity of the barbastelle bats, effects of development on their habitat (whether commuting or foraging habitat) is a material consideration in the planning process whether or not the bats in question

[101] The scale of the buffer will need to be determined on a case-by-case basis, informed by bat activity survey work and would take account of the species involved and their sensitivity to disturbance/artificial lighting and the natural screening provided by existing surrounding vegetation.

are associated with a European site. This policy therefore enables protection of barbastelle bat habitat and (if it cannot be preserved) would also enable the Council to require that provision was made for replacing any loss of foraging habitat that may be anticipated, prior to its loss.

7.19 Along with implementation of the Sussex Bat Special Area of Conservation Planning and Landscape Scale Enhancement Protocol' (2017), the above policies provide a protective framework for the SAC and the Local Plan will not result in an adverse effect in integrity on this SAC.

Atmospheric Pollution

7.20 As identified in Table 3 the SAC lies within 200m of the A283 for a short distance. According to APIS the average background nitrogen deposition rate for this site (not specifically within 200m of the roadside) is 26.9 kg/N/ha/yr which is above the upper critical load of 20 kgN/ha/yr and well above the lower critical load of 10 kgN/ha/yr.

7.21 The Local Plan does not allocate any dwellings within the north of the Plan area but does make provision for 370 dwellings across Loxwood, Wisborough Green, Kirdford and Plaistow and Ifold parishes. Within the north of the plan area all settlements outside of the South Downs National Park Authority are small villages that have many roads connecting them to the wider landscape other than the A283.

7.22 Modelling was conducted for a single transects on the A283. The first point for the transect is shown within the Table below. Current nitrogen deposition is therefore well above the most stringent critical load (10 kgN/ha/yr) for beech forest, the relevant SAC site habitats in this location according to www.magic.gov.uk.

Table 8. Modelled nitrogen deposition results for road links relevant to Solent European sites (in-combination)

Receptor	Road Link	Critical Load	Base Year	Future Year – DN	Future Year – DS	Absolute Change
EBCM	A283	10	31.31	26.34	27.91	1.57

Table 9. Modelled nitrogen deposition results for road links relevant to Solent European sites (in isolation)

Receptor	Road Link	Critical Load	Base Year	Future Year – DN	Future Year – DS	Absolute Change
EBCM	A283	10	31.31	28.08	27.91	-0.16

7.23 The above tables show, that in both cases either alone or in combination the SAC will still be well over the critical load for beech woodland. However, Table 11 the 'in isolation' table i.e. the Chichester Local Plan contribution to air pollution shows a 0.16 kgN/ha/yr reduction in deposition rates due to the implementation of the Plan verses not implementing the Plan. This reduction in deposition rates is likely due to improvements in active travel and public transport promoted within the Local Plan reducing the number of vehicular passes along the A283. The same trend is observed for NOx concentrations and ammonia concentrations i.e. a decrease (improvement) due to the Local Plan.

7.24 Moreover, the Local Plan provides the following policies that would reduce atmospheric pollution contributions stemming from development:

- Policy NE21: Air Quality: This policy aims to improve air quality within the district of Chichester. This includes minimising traffic generation, Air Quality Management Areas and air quality assessments.
- Policy T2: Transport and Development: This policy ensures that the development is safe, sustainable, connected and accessible by active and public travel networks and the use of air quality assessments where significant adverse effects are likely.
- Policy T3: Active Travel – Walking and Cycling Provision: Promotes sustainable transport and prioritises walking an cycling to remove vehicles from the roads.

- Policy NE1: Stand-alone Renewable Energy: The provision of renewable energy has the ability to reduce atmospheric pollution contributions.

7.25 APIS also shows that background NOx has reduced from 9.8 ug/m^3 in 2014 to 8.9 ug/m^3 in 2019 and nitrogen deposition rates at the SAC are also improving from 14.7 kgN/ha/yr in 2005 (5km grid square) to 11.4 kgN/ha/yr in 2019 (1km grid square). Additionally, the Site Improvement Plan for the SAC highlights that although the critical load is exceeded the '*sensitive features are currently considered to be in favourable condition on this site*[102]', the Supplementary Advice for Conservation Objectives[103] for the site provides no further information on potential impact due to air quality.

7.26 The air quality modelling shows a reduction in nitrogen deposition rates and ammonia and NOx concentrations due to the Local Plan. Given this, and the fact that APIS background nitrogen deposition rates at the SAC are shown to be improving and the sensitive features still considered favourable despite elevated nitrogen, a conclusion of no adverse effect in integrity on this European site can be drawn.

[102] http://publications.naturalengland.org.uk/file/5365367427825664 [Accessed 1/12/2022]
[103] http://publications.naturalengland.org.uk/file/4891772140650496 [Accessed 1/12/2022]

8. The Mens SAC

Introduction

8.1 The Mens remains one of the most extensive examples of Wealden Woodland in West Sussex. It is important for its size, structural diversity and the extremely rich fungal and lichen floras which occur here. The wood supports a diverse community of breeding birds and is the locality of a nationally endangered species of fly.

8.2 At its closest point the SAC lies adjacent to part of the Local Plan area to which the Chichester Local Plan applies.

Features of European Interest[104]

8.3 The Mens SAC qualifies as a SAC for both habitats and species. Firstly, the site contains the following Habitats Directive Annex I habitat:

- Beech forests on acid soils.

8.4 Secondly, the site contains the following Habitats Directive Annex II species:

- Barbastelle *Barbastella barbastellus.*

Conservation Objectives[105]

8.5 *With regard to the SAC and the natural habitats and/or species for which the site has been designated (the 'Qualifying Features' listed below), and subject to natural change;*

8.6 *Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring;*

- *The extent and distribution of qualifying natural habitats and habitats of qualifying species*
- *The structure and function (including typical species) of qualifying natural habitats*
- *The structure and function of the habitats of qualifying species*
- *The supporting processes on which qualifying natural habitats and the habitats of qualifying species rely*
- *The populations of qualifying species, and,*
- *The distribution of qualifying species within the site.'*

Historic Trends and Current Pressures

8.7 The Mens SAC is owned and managed by Sussex Wildlife Trust. In the most recent Natural England condition assessment process, 97% of The Mens SSSI was considered to be in favourable condition.

Key Environmental Conditions

8.8 The key environmental conditions that support the features of European interest have been defined as:

- Appropriate woodland management;
- Low recreational pressure (because management is minimum intervention and Bridleway degradation by horse riding is a recurring threat);

[104] http://publications.naturalengland.org.uk/file/5157859599843328 [accessed 15/10/2018]
[105] Natural England. uropean Site Conservation Objectives for The Mens Special Area of Conservation (2014) Available online: http://publications.naturalengland.org.uk/publication/5642356338458624 [Accessed: 15/10/2016].

- Minimal air pollution – may increase the susceptibility of beech trees to disease and alter epiphytic communities; and
- Barbastelles require a constant humidity around their roosts; any manipulation of the shrub layer must be carefully considered.

Potential Effects Linking to the Local Plan

8.9 The screening assessment undertaken in the table in Appendix A identify that following policies and site allocations have the potential to link to this European designated site and result in likely significant effects. These are as follows:

Policies

- Policy H1: Meeting Housing Needs
- Policy H2: Strategic Locations / Allocations 2021 – 2039
- Policy H3: Parish Housing Requirements 2021 – 2039
- Policy H13: Meeting Gypsies, Travellers and Travelling Showpeoples' Needs
- Policy H14: Intensification of Existing Authorised Sites
- Policy E1: Meeting Employment Land Needs
- Policy E3: Addressing Horticultural Needs
- Policy E5: Retail Strategy and New Development
- Policy A15: Loxwood

Site Allocations

8.10 The Local Plan makes no strategic site allocations within proximity of this SAC site. However, the Local Plan does allocate a quantum of dwellings to Parishes within proximity to the SAC. These dwellings will be allocated sites within subsequent Neighbourhood Plans:

- 220 dwellings to Loxwood (Policy A15);
- 75 dwellings to Wisborough Green (Policy H3);
- 50 dwellings to Kirdford (Policy H3); and,
- 25 dwellings to Plaistow and Ifold (Policy H3)

8.11 Potential linking impact pathways are as follows:

- Disturbance of bat flight lines through development within the Local Plan area; and
- Potential air quality impact on the woodland.

Appropriate Assessment

Disturbance of Bat Flight Lines

8.12 The Mens SAC is important for its barbastelle populations and radio-tracking studies have been undertaken to identify core foraging areas. As discussed in Chapter 3 (paragraph 3.39 onwards), key conservation areas have been determined as follows:

- A 'key conservation area' – for any development proposed within 6.5km of the SAC, all impacts will be considered; and
- A 'wider conservation area' – for any development proposed 6.5-12km from the SAC, significant impacts or severance of flightlines will be considered. This area encompasses the full extent from the SAC in which bats may forage.

8.13 The Local Plan does not allocate any new residential development north of the South Downs National

Park Authority boundary within either the key conservation area of wider conservation area. However, it does allocate a quantum of growth to both Loxwood, Wisborough Green, Kirdford and Plaistow and Ifold parishes (220 dwellings to Loxwood, 75 to Wisborough Green, 50 to Kirdford and 25 to Plaistow and Ifold). Actual sites will be identified in due course through the respective neighbourhood plans or a subsequent Site Allocation DPD. Clearly, the entirety of all parishes lies within the 12km zone and much of it lies within the 6.5km zone. Therefore, they could impact upon the supporting habitat of bats associated with The Mens SAC. The same applies to any windfall development that could feasibly occur within the north of the plan area. However, before adoption, all Neighbourhood Plans that come forward will be subject to their own HRA which will ensure that impacts on functionally linked habitat are minimised and that a policy is drafted ensuring surveys for significant areas of functionally-linked habitat, and their preservation where identified.

8.14 Policy NE8: Trees, Hedgerows and Woodlands of the Chichester Local Plan outlines that hedgerows are identified as a priority habitat requiring conservation action under the UK Biodiversity Action Plan. Therefore, all development must be undertaken in accordance with the British Standard 5837 and all tree works must be carried out in accordance with British Standard 3998. This is set out in the following policy:

- '*Development proposals will be granted where it can be demonstrated that all of the following criteria have been met;*
    - *Proposals conserve and, where appropriate, enhance existing valued and protected trees, hedgerows and woodlands;*
    - *Development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and trees; veteran trees; protected trees, groups of trees and woodland and hedgerows) should be refused unless there are wholly exceptional reasons and a suitable compensation strategy in accordance with relevant legislation, policy and guidelines;*
    - *Loss or damage of woodland and hedgerows that are priority habitats and non-protected but valued trees, woodland, community orchards, and all hedgerows should be avoided, and if demonstrated as being unavoidable, appropriate mitigation measures are provided;*
    - *Proposals should maximise opportunities for planting of new trees, woodlands and hedgerows to contribute to biodiversity net gain, green infrastructure and nature recovery strategies and networks. In addition, proposals will be required to plant two trees for each one lost through development; provide new planting to thicken existing hedgerows, and fill in all gaps in all hedgerows;*
    - *Proposals should have a minimum buffer zone of 15 metres from the boundary of ancient woodland or veteran trees to avoid root damage (known as the root protection area);*
    - *All major development proposals will be required to provide street tree planting;*
    - *Development proposals must demonstrate that appropriate protection measures are in place prior to any work on site and throughout the development process as part of a tree protection plan;*
    - *Suitable opportunities for the restoration, enhancement or planting of trees, woodland, and hedgerows are identified and incorporated into a comprehensive landscaping plan; and*
    - *Where appropriate, the Council will seek minimum five-year maintenance and management plans to accompany the soft landscaping proposals.*
    - *Trees proposed for landscaping and replacement planting should be selected from a diverse range and variety of native species to help provide long-term resilience to pests, diseases and climate change.*

  The council will consider development proposals against the requirements and standards contained in legislation as well as current local and national guidance and practice'

8.15 Since hedgerows and woodlands are key supporting habitats used by bat species to facilitate movement between foraging habitats, this policy provides for adequate mitigation for the protection of bat flightlines within the Local Plan area. However, barbastelle bats will also forage in and around other habitats (particularly wetlands and flood meadows) if their prey abundance is sufficiently great.

8.16 Protection of these habitats would be facilitated by Policy NE5: Biodiversity and Biodiversity Net Gain states: '*All development shall ensure the conservation, protection, enhancement and restoration of biodiversity avoiding any adverse impact on the condition and recovery of all types of nature conservation sites, habitats and species within their ecological networks including:*

- *Internationally designated sites (SPA, SAC, Ramsar)*
- *Irreplaceable habitats, including ancient woodland and ancient or veteran trees*
- *Nationally designated sites, such as Sites of Special Scientific Interest (SSSI), National Nature Reserves (NNR) and Marine Conservation Zones (MCZ)*
- *Riverine and Marine Habitats*
- *Priority Habitats and Species*
- *Biodiversity Opportunity Areas (BOA)*
- *Locally designated sites, such as Sites of Nature Conservation Importance and Local Nature Reserves*
- *Wildlife corridors and steppingstones*

Opportunities to conserve, protect, enhance and recover biodiversity and contribute to wildlife and habitats connectivity will be undertaken, including the preservation, restoration and recreation of priority habitats, ecological networks and the protection and recovery of priority species populations'.'

8.17 Finally, Policy NE6: Chichester's Internationally and Nationally Designated Habitats states with regards to The Mens SAC, Ebernoe Common SAC and Singleton and Cocking Railway Tunnels SAC: "*Development proposals on greenfield sites and sites that support, or are in close proximity to, suitable commuting and foraging habitats (including mature vegetative linear features such as woodlands, hedgerows, riverine and wetland habitats) within the following ranges (as shown on the Policies Map) should have due regard to the possibility that barbastelle and Bechstein's bats will be utilising the site. Such proposals will be required to incorporate necessary surveys and ensure that key features (foraging habitat and commuting routes) are retained, in addition to a suitable buffer*[106] *to safeguard against disturbance:*

- *Key Conservation Area – 6.5km: all impacts to bats must be considered given that habitats within this zone are considered critical for sustaining the populations of bats within the SACs; and*
- *Wider Conservation Area – 12km: significant impacts on severance to flight lines to be considered.*

Regard should be had to the Sussex Bat Special Area of Conservation Planning and Landscape Scale Enhancement Protocol (2018), or any subsequent equivalent document".

8.18 Given the rarity of the barbastelle bats, effects of development on their habitat (whether commuting or foraging habitat) are a material consideration in the planning process whether or not the bats in question are associated with a European site. This policy therefore enables protection of barbastelle bat habitat and (if it cannot be preserved) would also enable the Council to require that provision was made for replacing any loss of foraging habitat that may be anticipated, prior to its loss.

8.19 Along with implementation of the Sussex Bat Special Area of Conservation Planning and Landscape Scale Enhancement Protocol' (2017), the above policies provide a protective framework for the SAC and the Local Plan will not result in an adverse effect in integrity on this SAC.

Atmospheric Pollution

8.20 As identified in Table 3 the SAC lies within 200m of the A272 for a short distance. According to APIS the average deposition rate for the site is 26.3 kg/N/ha/yr which is above the upper critical load of 20 kgN/ha/yr and well above the lower critical load of 10 kgN/ha/yr.

8.21 The Local Plan does not allocate any dwellings within the north of the plan area but does make provision for 370 dwellings across Loxwood, Wisborough Green, Kirdford and Plaistow and Ifold

[106] The scale of the buffer will need to be determined on a case-by-case basis, informed by bat activity survey work and would take account of the species involved and their sensitivity to disturbance/artificial lighting and the natural screening provided by existing surrounding vegetation.

parishes. Within the north of the Plan area all settlements outside of the South Downs National Park Authority are small villages that have many roads connecting them to the wider landscape other than the A272.

8.22 Modelling was conducted for two transects on the A272, one east of the road (MENS2) and one west of the road (MENS1). The first point (closest to the road) of each transect is shown within the table below. The current nitrogen deposition rate at the closest point 28.0 kgN/ha/yr and is therefore well above the most stringent critical load (10kgN/ha/yr for beech forest, the relevant SAC site habitats for this location according to www.magic.gov.uk.

8.23 The designated habitat for this SAC is beech woodland. According to APIS, the minimum Critical Load of nitrogen for beech woodland is 10 kg/N/ha/yr. APIS also identifies that the existing nitrogen deposition rate at the transect location is approximately 26.4 kg/N/ha/yr. Therefore, nitrogen deposition rates are already in exceedance of the critical load. The Critical Level for ammonia for beech woodlands is 3 µg NH_3/m^3. However, the site is also partially designated for its rich lichen and bryophyte populations which have a Critical Level of 1 µg NH_3/m^3. As such, it is this lower Level for ammonia that will be used in this assessment. APIS also identifies that the existing ammonia concentrations within the 1km grid square in which the SAC is situated are 1.55 µg NH_3/m^3 and thus already in exceedance for the SACs lichen and bryophyte populations.

8.24 With regards to NOx the critical level is set at 30 µg/m^3. Baseline data was utilised from the year 2019 which recorded NOx concentrations of 13 ug/m^3 0m from the roadside. As such the NOx Critical Level is not exceeded. Due to improvements in vehicle emissions technology (as reflected in the Defra Emission Factor Toolkit) NO_X concentrations are forecast to continue to fall to 2040 notwithstanding the expected increase in traffic due to development across Chichester District, the South Downs National Park Authority, Horsham and surrounding authorities. As both baseline and all future concentrations are forecast to be below the Critical Level of 30 µg/m^3 it can be concluded that NO_X itself will not have an adverse impact upon the SAC and will only be considered further within the assessment as a source of nitrogen deposition.

Table 10. Modelled nitrogen deposition results for road links relevant to The Mens European site (in-combination)

Receptor	Road Link	Critical Load	Base Year	Future Year – DN	Future Year – DS	Absolute Change
MENS1	A272	10	27.95	23.72	25.61	1.90
MENS2	A272	10	27.89	23.67	25.49	1.82

Table 11. Modelled nitrogen deposition results for road links relevant to The Mens European site (in isolation)

Receptor	Road Link	Critical Load	Base Year	Future Year – DN	Future Year – DS	Absolute Change
MENS1	A272	10	27.95	25.46	25.61	0.16
MENS2	A272	10	27.89	25.34	25.49	0.15

Modelling results

8.25 An assessment of air quality was undertaken for both alone impacts i.e. the Chichester Local Plan and in-combination e.g. Chichester Local Plan in combination with all other growth from neighbouring authorities. In this section discussion will focus on the contribution of the Chichester Local Plan alone.

Nutrient Nitrogen

8.26 As previously detailed the lowest Critical Load for nutrient nitrogen deposition of the designated habitats within the SAC is 10 kgN/ha/yr for Atlantic acidophilous beech forests with *Ilex* and a *Taxus* scrub layer and the broadleaved deciduous woodland upon which the Barbastelle bat rely.

Exceedance of this level can result in changes in ground vegetation and mycorrhiza, nutrient imbalance, changes to soil fauna, and changes to soil processes.

8.27 Data shows the minimum total annual mean nitrogen deposition to the SAC in the vicinity of the road during the Base year of 26.51 kgN/ha/yr at 200m from the road, rising to 27.95 kgN/ha/yr adjacent to the road. Therefore, the SAC is already in exceedance of the Critical Load for nitrogen deposition on beech woodland in the Base year. However, Paragraph 5.26 of Natural England guidance[107] states that '*An exceedance alone is insufficient to determine the acceptability (or otherwise) of a project'*. Where an exceedance of the Critical Load is expected, it is also necessary to consider whether the forecast dose will be imperceptible. As per paragraph 4.25 of same guidance '*…1% of critical load/level are considered by Natural England's air quality specialists (and by industry, regulators and other statutory nature conservation bodies) to be suitably precautionary, as any emissions below this level are widely considered to be imperceptible…There can therefore be a high degree of confidence in its application to screen for risks of an effect'*.

8.28 As the deposition rate is already in exceedance of the Critical Load, this assessment therefore first looks at the contribution of the Chichester Local Plan in terms of a significant increase above the Critical Load. For The Mens SAC, 1% of the Critical Load is 0.1 kgN/ha/yr.

8.29 In order to assess the contribution of the Chichester Local Plan alone it is necessary to separate it from the rest of development in the South Downs National Park Authority, Horsham District Council and other neighbouring authorities. The contribution of the Local Plan alone is shown by the difference between Do Minimum 2040 and the Do Something 2040. In line with IAQM guidance, data for the immediate roadside is not used in the assessment due to reduced model accuracy that close to the road, so the data for 10m from the roadside are reported below as a worst-case.

8.30 It can be seen that, at 10m from the roadside, the Do Minimum deposition rate is 24.90 kgN/ha/yr while the Do Something deposition rate is 25.03 kgN/ha/yr. The difference between the Do Minimum 2040 and Do Something 2040 scenario is 0.13 kgN/ha/yr, which is very slightly greater than 1% of the Critical Load (10 kgN/ha/yr) for The Mens SAC. The contribution of the Local Plan alone falls below 1% of the Critical Load by c. 20m from the road. **As such the contribution to nitrogen deposition at the SAC from the Chichester Local Plan is small but needs further investigation, which is continued below.**

Ammonia

8.31 Investigating the sources of nitrogen pollution from traffic further, it is clear that ammonia plays a large part in nitrogen deposition. For The Mens SAC, 1% of the most stringent Critical Level is 0.01 µg/m^3 Appendix B shows that in the Base 2019 scenario, ammonia concentrations at 10m from the road remain consistent at c. 1.6 µg/m^3, thus indicating that, unlike NOx, there is no improvement forecast in ammonia concentrations. The contribution of Chichester Local Plan is 0.01 µg/m^3 or 1% of the critical level. Therefore, the contribution of Chichester Local Plan to the 'in combination' increase in ammonia concentrations does not exceed the threshold of imperceptibility.

8.32 It should be noted that even remote (e.g. 200m) from the road, the ammonia concentrations are 1.5 µg/m^3, so the 1 µg/m^3 threshold would be breached even without any traffic growth purely due to existing sources. It should also be noted that ammonia concentrations fluctuate greatly due to meteorological factors. Scrutiny of ammonia data from the UKEAP national ammonia monitoring network for a range of sites covering 2010-2019 shows that the normal variation in ammonia concentrations throughout a year can be as high as 3-4 µg/m^3, and even at rural sites like this one concentrations generally fluctuate by more than 1 µg/m^3 (100% of the critical level) throughout the year. Therefore, care should be taken not to read too much into very small forecast changes in average ammonia concentration, such as is predicted for Chichester Local Plan.

Ecological interpretation

8.33 Effects on The Mens SAC due to increased ammonia and nitrogen from Chichester Local Plan-derived traffic growth cannot be dismissed based on purely numerical criteria as the worst-case deposition/concentration due to the Local Plan exceeds 1% of the critical level/load. However, Natural England guidance makes it clear that exceedance of these thresholds does not automatically mean an adverse effect on integrity will arise. Paragraph 5.28 of that guidance states '*In practice, where a*

[107] http://publications.naturalengland.org.uk/publication/4720542048845824

site is already exceeding a relevant benchmark, the extent to which additional increments from plans and projects would undermine a conservation objective to 'restore' will involve further consideration of whether there is credible evidence that the emissions represent a real risk that the ability of other national or local measures and initiatives to otherwise reduce background levels will be compromised in a meaningful manner'.

8.34 Firstly, it is necessary to consider the conservation objectives for the SAC. Within that context, it should be noted that the SIP for the SAC states that 'Nitrogen deposition exceeds the site-relevant critical load for ecosystem protection and hence there is a risk of harmful effects, but the sensitive features are currently considered to be in favourable condition on the site'. Therefore, the current elevated nitrogen deposition rates and ammonia concentrations at the SAC do not appear to be having a negative effect on the key features of the site. That said, one of the targets within the Conservation Objectives Supplementary Advice[108] is to "*Restore concentrations and deposition of air pollutants to at or below the site-relevant Critical Load or Level values given for this feature of the site on the Air Pollution Information System (www.apis.ac.uk)."*

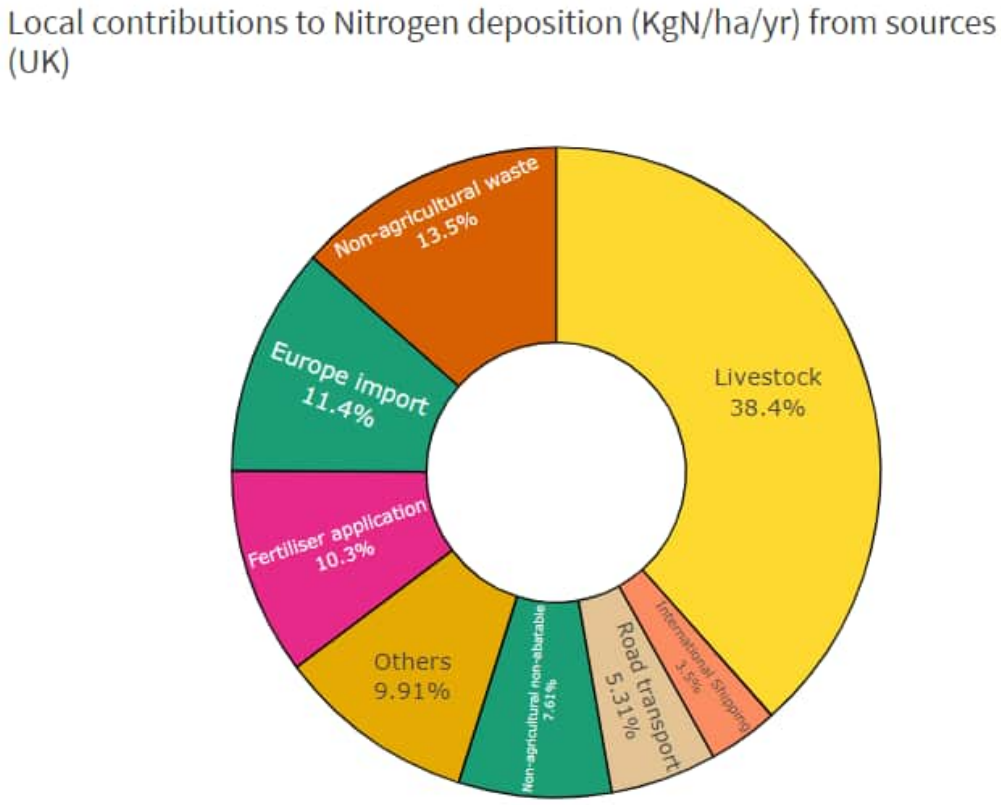
8.35 Key factors to consider in interpreting the air quality modelling results are how much of the SAC would be affected by the forecast impacts, how important is traffic as an overall source of nitrogen and ammonia at the SAC and what is the current and likely trend for these pollutants from various sources. All of these factors will influence which sources of nitrogen are most important to control and reduce in order to ensure the SAC achieves the above-mentioned conservation objective target of restoring air quality to below critical loads/levels.

8.36 Since the contribution of Chichester Local Plan to elevated nitrogen and ammonia in the SAC falls to an imperceptible level by 20m from the roadside, and only small parts of the SAC lie adjacent to the A272, only 1.3% of the SAC is affected to a greater than imperceptible degree by the Local Plan. Therefore 98.7% of the SAC will be affected to an imperceptible degree by the Chichester Local Plan and the 1.3% that will be affected would only be subject to a small (c. 1.3% of the critical level/load) increase in pollution. Moreover, for nitrogen deposition this would not constitute a ***net*** increase but rather an increase compared to a hypothetical scenario of no traffic growth. Even with the Chichester Local Plan and all other forecast traffic growth there would still be a large ***net reduction*** (improvement) in nitrogen deposition of more than 2 kgN/ha/yr.

8.37 In addition, unlike some other SACs the Air Pollution Information System shows that road traffic is a minor source of nitrogen at The Mens SAC (5%). In contrast, nearly 50% (48.7%) of atmospheric nitrogen at the SAC derives from agriculture (fertiliser and livestock combined) and over 60% of total nitrogen at the SAC comes from just two sources: agriculture and 'non-agricultural waste' (e.g. composting, landfill and energy from waste). Unlike road traffic (which has a very localised impact zone) agriculture and non-agricultural waste will affect nitrogen deposition across the entire SAC.

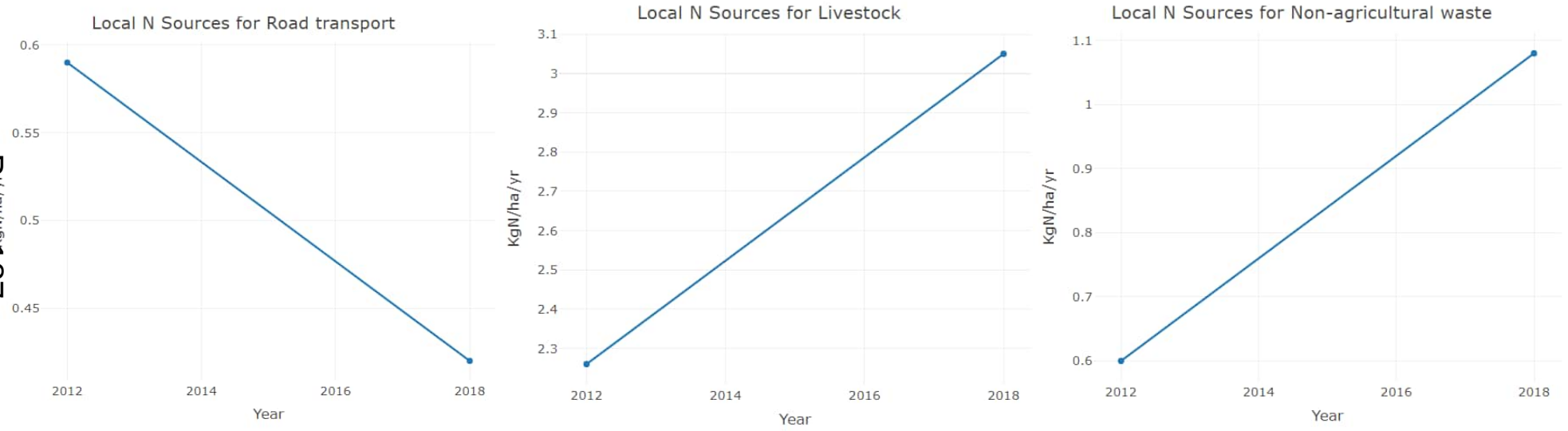
[108] Available at http://publications.naturalengland.org.uk/file/5113429933424640 [accessed 25/11/2022]

Figure 4. Source apportionment for nitrogen deposition at The Mens SAC, taken from APIS



8.38 Therefore, even if the A272 was closed entirely it would have a minimal benefit on nitrogen deposition at The Mens SAC. Moreover, road traffic is not only a small contributor but is getting smaller (better) as time goes by, whereas agricultural nitrogen and non-agricultural waste (already by far the biggest sources of nitrogen) are both getting worse. This can be seen from the graphs below, excerpted from APIS.

Figure 5. Trend data for nitrogen/ammonia sources at The Mens SAC, taken from APIS. While traffic-related nitrogen is improving, other sources of nitrogen are deteriorating (increasing)



8.39 In addition, AECOM have taken no account of the ban on petrol and diesel cars and vans from 2030 in our modelling, so even the small contribution reported above for Chichester Local Plan is probably an overestimate, potentially to a considerable degree. For example, Automated Number Plate Recognition (ANPR) surveys indicate that the area around The Mens SAC already has a greater than average number of electric vehicles on the network. Given the contribution of traffic to nitrogen at the SAC is only 5% now, and other more major sources are getting bigger whereas traffic is getting smaller, it is perfectly possible that the contribution could have fallen close to zero by 2039 without any need for local intervention, given expected continued falls in traffic emissions and expected increases in agricultural emissions.

8.40 It is therefore concluded that traffic growth on the A272 over the Local Plan period will not materially interfere with the conservation objective target for this SAC to reduce air pollution to below critical levels and loads. Traffic is only a minor source of ammonia and nitrogen at this SAC (5%) and only affects an area local to the A272. Nitrogen deposition due to traffic has been improving since at least 2012 and is expected to continue to improve in the future, such that even allowing for traffic growth there will still be a large net reduction in nitrogen deposition by 2039. The contribution of Chichester Local Plan to nitrogen will be small (a maximum of 1.3% of the critical load) and very localised (imperceptible at distances greater than 20m from the road) and is probably over-estimated due to inability at this stage to account for the large uptake of electric vehicles that can be expected in the second half of the plan period. In order for the SAC to meet its conservation objective targets it will clearly be necessary for the focus to be on agriculture and non-agricultural waste which collectively currently account for over 60% of atmospheric nitrogen at the SAC, are getting worse, and are not related to Local Plans, rather than traffic.

8.41 It is therefore concluded that there will be no adverse effect on the integrity of The Mens SAC either alone, or in combination with other plans or projects.

8.42 Moreover, the Local Plan provides the following policies that would reduce atmospheric pollution contributions stemming from development:

- Policy NE21: Air Quality: This policy aims to improve air quality within the district of Chichester. This includes minimising traffic generation, Air Quality Management Areas and air quality assessments.
- Policy T2: Transport and Development: This policy ensures that the development is safe, sustainable, connected and accessible by active and public travel networks and the use of air quality assessments where significant adverse effects are likely.
- Policy T3: Active Travel – Walking and Cycling Provision: Promotes sustainable transport and prioritises walking an cycling to remove vehicles from the roads.
- Policy NE1: Stand-alone Renewable Energy: The provision of renewable energy has the ability to reduce atmospheric pollution contributions.

8.43 Additionally, the Site Improvement Plan for the SAC highlights that although the critical load is exceeded the '*sensitive features are currently considered to be in favourable condition on this site*[109]', the Supplementary Advice for Conservation Objectives[110] for the site provides no further information on potential impact due to air quality.

[109] http://publications.naturalengland.org.uk/file/6144692196474880 [Accessed 1/12/2022]
[110] http://publications.naturalengland.org.uk/file/5113429933424640 [Accessed 1/12/2022]

9. Singleton and Cocking Tunnels SAC

Introduction

9.1 Singleton and Cocking Tunnels are two disused brick built railway tunnels in West Sussex running between Midhurst and Chichester. The tunnels provide ideal microclimates and protection for hibernating bats. The site is one of the best hibernacula in the UK and features hundreds of bats and a diversity of species including Bechstein's and Barbastelles. Horseshoe bats, and the last resident Greater mouse-eared bat in the UK are also present.

Features of European Interest

9.2 The Singleton and Cocking Tunnels SAC qualifies as a SAC for species. The site contains the following Habitats Directive Annex II species:

- Barbastelle *Barbastella barbastellus*.
- Bechstein's bat *Myotis bechsteinii*.

Conservation Objectives[111]

9.3 *With regard to the SAC and the natural habitats and/or species for which the site has been designated (the 'Qualifying Features' listed below), and subject to natural change;*

9.4 *Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring;*

- *The extent and distribution of qualifying natural habitats and habitats of qualifying species*
- *The structure and function (including typical species) of qualifying natural habitats*
- *The structure and function of the habitats of qualifying species*
- *The supporting processes on which qualifying natural habitats and the habitats of qualifying species rely*
- *The populations of qualifying species, and,*
- *The distribution of qualifying species within the site.'*

Historic Trends and Current Pressures

9.5 The Singleton and Cocking Tunnels are monitored by the local bat group as part of Bat Conservation Trusts hibernation site programme. In the last 6 years bat numbers have averaged about 70 in Cocking tunnel with 110 in January 2020 and feature five or six species[112]. In the most recent Natural England condition assessment process, all of the SSSI was considered to be in favourable condition.

Key Environmental Conditions

9.6 The key environmental conditions that support the features of European interest have been defined as[113]:

- Habitat connectivity - appropriate management of hedgerows and woodlands;
- Low recreational pressure (the tunnels are not open to the public);
- Low light pollution (Bechstein's and barbastelle bats are notably sensitive to light pollution)

[111] http://publications.naturalengland.org.uk/file/4693622251585536 [Accessed 1/12/22]
[112] Designated Sites View (naturalengland.org.uk) [Accessed 1/12/2022]
[113] http://publications.naturalengland.org.uk/file/6277057719828480 [Accessed 1/12/22]

Potential Effects Linking to the Local Plan

9.7 The screening assessment undertaken in the table in Appendix A identify that following policies and site allocations have the potential to link to this European designated site and result in likely significant effects. These are as follows:

Policies

- Policy H1: Meeting Housing Needs
- Policy H2: Strategic Locations / Allocations 2021 – 2039
- Policy H3: Parish Housing Requirements 2021 – 2039
- Policy H11: Meeting Gypsies, Travellers and Travelling Showpeoples' Needs
- Policy H12: Intensification Sites
- Policy E1: Meeting Employment Land Needs
- Policy E3: Addressing Horticultural Needs
- Policy E5: Retail Strategy and New Development

Site Allocations

9.8 The following sites are within 12km of the SAC:

- Policy A2: Chichester City – Strategic Housing Location
- Policy A6: West of Chichester
- Policy A7: Land at Shopwyke (Oving Parish)
- Policy A8: Land East of Chichester
- Policy A9: Land at Westhampnett / North East Chichester
- Policy A4: Southern Gateway – Police Field, Kingsham Road
- Policy A5: Southern Gateway – Bus Station Depot and Basing Road Car Park
- Policy A11: Land at Highgrove Farm, Bosham
- Policy A12: Chidham and Hambrook Parish
- Policy A13: Southbourne Broad Location for Development
- Policy A14: Tangmere Strategic Development Location
- Policy A16: Goodwood Motor Circuit and Airfield
- Policy A20: Land South of Bognor Road
- Policy A19: Land at Chichester Business Park, Tangmere
- Policy A21: Land East of Rolls Royce

9.9 Potential linking impact pathways are as follows:

- Disturbance of bat flight lines through development within the Local Plan area

Appropriate Assessment

Disturbance of Bat Flight Lines

9.10 The Singleton and Cocking SAC is important for its barbastelle populations and radio-tracking studies have been undertaken to identify core foraging areas. As discussed in Chapter 3 (paragraph 3.39 onwards), key conservation areas have been determined as follows:

- A ‘key conservation area’ – for any development proposed within 6.5km of the SAC, all impacts will be considered; and
- A ‘wider conservation area’ – for any development proposed 6.5-12km from the SAC, significant impacts or severance of flightlines will be considered. This area encompasses the full extent from the SAC in which bats may forage.

9.11 The Local Plan does not allocate any new residential development within the South Downs National Park Authority boundary. However, all strategic residential allocations in the south of the plan area around Chichester are present within the wider conservation area, including part of the broad location for development at Southbourne. The only exceptions to this are several Gypsy and Traveller sites (Greenacre, Sunrise Southbourne, Land at Cherry West, Five Paddocks Farm, The Stables Bracklesham Lane). Therefore, these sites could impact upon the supporting habitat of bats associated with Singleton and Cocking Tunnels SAC. The same applies to any windfall development that could feasibly occur within the south of the plan area.

9.12 Policy A8: East of Chichester specifically is located adjacent to the Pagham to Westhampnett Strategic Wildlife Corridor which runs along its eastern boundary and both the site and the wildlife corridor are within the 12 km conservation zone for the Singleton and Cocking Tunnels SAC. Additionally, there are known flightlines from the functionally linked Goodwood barbastelle maternity roost that cross the site and the strategic wildlife corridor adjacent to the East of Chichester site. and therefore, without adequate mitigation, there would be an adverse effect on the integrity of the European site. However, with regards to protecting the SAC and the wildlife corridor the policy specifically states: *“provide for… a substantial and effective buffer with significant planting to the strategic wildlife corridor on the eastern boundary of the site… the buffer to the corridor should ensure darkness and minimise disturbance in the wildlife corridor and ensure habitats and microclimates of the corridor continue to support a wide range of species and maintain connectivity.” As well as also stating: “Ensure that the design and layout avoids harms to SAC designated species, section 41 priority species, other protected species and the existing habitat features within, and in the vicinity of the site, that support these species. The design and layout should facilitate the achievement of biodiversity net gain and facilitates the creation of high levels of habitat connectivity within the site and to the adjacent strategic wildlife corridor and wider Green Infrastructure network. Appropriate buffers, of sufficient width and landscaping design to reduce light levels down to a maximum of 0.2 lux in the horizontal plane and 0.4 lux in the vertical plane, will be required to the strategic wildlife corridor, that includes the lake/water body, to reinforce its functionality and to include mitigation measures to minimise noise to reduce disturbance from the development”.*

9.13 In addition to the specifics for the site allocation policy, the Local Plan provides policies which protect not only the SAC itself but also supporting habitats as shown in Policy NE8: Trees, Hedgerows and Woodlands of the Chichester Local Plan which outlines that; hedgerows are identified as a priority habitat requiring conservation action under the UK Biodiversity Action Plan. Therefore, all development must be undertaken in accordance with the British Standard 5837 and all tree works must be carried out in accordance with British Standard 3998. This is set out in the following policy:

- *‘Development proposals will be granted where it can be demonstrated that all of the following criteria have been met;*
  - *Proposals conserve and, where appropriate, enhance existing valued and protected trees, hedgerows and woodlands;*
  - *Development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and trees; veteran trees; protected trees, groups of trees and woodland and hedgerows) should be refused unless there are wholly exceptional reasons and a suitable compensation strategy in accordance with relevant legislation, policy and guidelines;*
  - *Loss or damage of woodland and hedgerows that are priority habitats and non-protected but valued trees, woodland, community orchards, and all hedgerows should be avoided, and if demonstrated as being unavoidable, appropriate mitigation measures are provided;*
  - *Proposals should maximise opportunities for planting of new trees, woodlands and hedgerows to contribute to biodiversity net gain, green infrastructure and nature recovery strategies and networks. In addition, proposals will be required to plant two trees for each one lost through development; provide new planting to thicken existing hedgerows, and fill in all gaps in all hedgerows;*

- *Proposals should have a minimum buffer zone of 15 metres from the boundary of ancient woodland or veteran trees to avoid root damage (known as the root protection area);*
- *All major development proposals will be required to provide street tree planting;*
- *Development proposals must demonstrate that appropriate protection measures are in place prior to any work on site and throughout the development process as part of a tree protection plan;*
- *Suitable opportunities for the restoration, enhancement or planting of trees, woodland, and hedgerows are identified and incorporated into a comprehensive landscaping plan; and*
- *Where appropriate, the Council will seek minimum five-year maintenance and management plans to accompany the soft landscaping proposals.*
- *Trees proposed for landscaping and replacement planting should be selected from a diverse range and variety of native species to help provide long-term resilience to pests, diseases and climate change.*

The council will consider development proposals against the requirements and standards contained in legislation as well as current local and national guidance and practice'

9.14 Since hedgerows and woodlands are key supporting habitats used by bat species to facilitate movement between foraging habitats, this policy provides for adequate mitigation for the protection of bat flightlines within Chichester. However, barbastelle bats will also forage in and around other habitats (particularly wetlands and flood meadows) if their prey abundance is sufficiently great.

9.15 Protection of these habitats would be facilitated by Policy NE5: Biodiversity and Biodiversity Net Gain states: '*All development shall ensure the conservation, protection, enhancement and restoration of biodiversity avoiding any adverse impact on the condition and recovery of all types of nature conservation sites, habitats and species within their ecological networks including:*

- *Internationally designated sites (SPA, SAC, Ramsar)*
- *Irreplaceable habitats, including ancient woodland and ancient or veteran trees*
- *Nationally designated sites, such as Sites of Special Scientific Interest (SSSI), National Nature Reserves (NNR) and Marine Conservation Zones (MCZ)*
- *Riverine and Marine Habitats*
- *Priority Habitats and Species*
- *Biodiversity Opportunity Areas (BOA)*
- *Locally designated sites, such as Sites of Nature Conservation Importance and Local Nature Reserves*
- *Wildlife corridors and steppingstones*

Opportunities to conserve, protect, enhance and recover biodiversity and contribute to wildlife and habitats connectivity will be undertaken, including the preservation, restoration and recreation of priority habitats, ecological networks and the protection and recovery of priority species populations'.'

9.16 Finally, Policy NE6: Chichester's Internationally and Nationally Designated Habitats states with regards to The Mens SAC, Ebernoe Common SAC and Singleton and Cocking Railway Tunnels SAC: '*Development proposals on greenfield sites and sites that support, or are in close proximity to, suitable commuting and foraging habitats (including mature vegetative linear features such as woodlands, hedgerows, riverine and wetland habitats) within the following ranges (as shown on the Policies Map) should have due regard to the possibility that barbastelle and Bechstein's bats will be utilising the site. Such proposals will be required to incorporate necessary surveys and ensure that key features*

(foraging habitat and commuting routes) are retained, in addition to a suitable buffer[114] to safeguard against disturbance:

- *Key Conservation Area – 6.5km: all impacts to bats must be considered given that habitats within this zone are considered critical for sustaining the populations of bats within the SACs; and*
- *Wider Conservation Area – 12km: significant impacts on severance to flight lines to be considered.*

Regard should be had to the Sussex Bat Special Area of Conservation Planning and Landscape Scale Enhancement Protocol (2018), or any subsequent equivalent document.'

9.17 Given the rarity of the barbastelle bats, effects of development on their habitat (whether commuting or foraging habitat) is a material consideration in the planning process whether or not the bats in question are associated with a European site. This policy, therefore, enables protection of barbastelle bat habitat and (if it cannot be preserved) would also enable the Council to require that provision was made for replacing any loss of foraging habitat that may be anticipated, prior to its loss.

9.18 Along with implementation of the Sussex Bat Special Area of Conservation Planning and Landscape Scale Enhancement Protocol' (2017), the above policies provide a protective framework for the SAC and the Local Plan will not result in an adverse effect in integrity on this SAC. However, although the Local Plan provides a robust policy framework, given that there are known flightlines that cross the East of Chichester site from functionally linked barbastelle maternity colonies, and that there would be adverse impact on the SAC without adequate mitigation, it is still essential that any planning application for this site undergo a project level HRA to ensure adequate mitigation is established.

Recommendations

9.19 It is therefore recommended that wording regarding project level HRA for this site is included within the Policy A8: East of Chichester such as 'A*ny development brought forward at this site will require a project level HRA to establish that adequate mitigation is in place in line with the submission of a planning application to ensure no adverse effects on the integrity of Singleton and Cocking Tunnels SAC or any other European sites.'*

[114] The scale of the buffer will need to be determined on a case-by-case basis, informed by bat activity survey work and would take account of the species involved and their sensitivity to disturbance/artificial lighting and the natural screening provided by existing surrounding vegetation.

10. Arun Valley SAC/SPA/Ramsar site

Introduction

10.1 Consultation with Natural England on 25th November 2021 identified that Natural England are in the process of undertaking a condition assessment. The condition assessment at the time of writing this report has not been published on the Natural England Website. The consultation identified that due to an increased survey effort in 2021 a small population of little whorlpool ram's-horn snail *Anisus vorticulus* (the SAC feature) were identified within one location in Amberley. Despite the increased survey efforts, little whorlpool ram's-horn snail has declined from up to three quarters of its former range within the SAC designated sites. The former range was thought to be a quarter of the UK population of this rare species. Little whorlpool ram's-horn snail is not meeting its conservation objectives. Natural England have not yet analysed the plant and invertebrate data fully but they note that some of the Ramsar plants are also declining. In addition, Natural England identify that the wintering birds of the SPA are not meeting their conservation objectives though teal (part of the assemblage) is increasing.

Reasons for Designation

10.2 Annex II species that are a primary reason for selection of this site as an SAC:

- Little whorlpool ram's-horn snail *Anisus vorticulus*

10.3 The SAC is designated for the following species:

- Bewick's swan *Cygnus columbianus bewickii* (non-breeding)
- Wintering bird assemblage

Conservation Objectives

10.4 *With regard to the SPA and the individual species and/or assemblage of species for which the site has been classified (the 'Qualifying Features' listed below), and subject to natural change;*

10.5 *Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the aims of the Wild Birds Directive, by maintaining or restoring;*

- *The extent and distribution of the habitats of the qualifying features*
- *The structure and function of the habitats of the qualifying features*
- *The supporting processes on which the habitats of the qualifying features rely*
- *The population of each of the qualifying features, and,*
- *The distribution of the qualifying features within the site*

10.6 *With regard to the SAC and the natural habitats and/or species for which the site has been designated (the 'Qualifying Features' listed below), and subject to natural change;*

10.7 *Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring;*

- *The extent and distribution of the habitats of qualifying species*
- *The structure and function of the habitats of qualifying species*
- *The supporting processes on which the habitats of qualifying species rely*
- *The populations of qualifying species, and,*
- *The distribution of qualifying species within the site.*

10.8 Arun Valley **Ramsar** site qualifies under the following Ramsar criteria. [115]

Table 12. Arun Valley Ramsar site criteria.

Ramsar criterion	Description of criterion	Arun Valley Ramsar
2	A wetland should be considered internationally important if it supports vulnerable, endangered, or critically endangered species or threatened ecological communities.	The site holds seven wetland invertebrate species listed in the British Red Data Book as threatened. One of these, *Pseudamnicola confusa*, is considered to be endangered. The site also supports four nationally rare and four nationally scarce plant species.
3	A wetland should be considered internationally important if it supports populations of plant and/or animal species important for maintaining the biological diversity of a particular biogeographic region.	In addition to the Red Data Book invertebrate and plant species, the ditches intersecting the site have a particularly diverse and rich flora. All five British duckweed *Lemna* species, all five watercress *Rorippa* species, and all three British water milfoils (*Myriophyllum* species), all but one of the seven British water dropworts (*Oenanthe* species), and two-thirds of the British pondweeds (*Potamogeton* species) can be found on site.
5	A wetland should be considered internationally important if it regularly supports 20,000 or more waterbirds.	Species with peak counts in the winter: 13,774 waterfowl with a 5 year peak mean 1998/99 – 2002/03
Species or populations identified subsequent to designation for possible future consideration		
6	A wetland should be considered internationally important if it regularly supports 1% of the individuals in a population of one species or subspecies of waterbird.	Species with peak counts in the winter: Northern pintail *Anas acuta* – 641 individuals, representing an average of 1% of the population with a 5 year peak mean 1998/99 – 2002/03

Key Environmental Conditions

10.9 The key environmental conditions for this SAC[116] are:

- Maintain appropriate water levels
- Investigate and monitor the impacts of point and diffuse water pollution
- Maintain appropriate ditch management

Potential Effects Linking to the Local Plan

10.10 The screening assessment undertaken in the table in Appendix A identify that the following policies and site allocations have the potential to link to this European designated site and result in likely significant effects. These are as follows:

Policies

- Policy H1: Meeting Housing Needs
- Policy H2: Strategic Locations / Allocations 2021 – 2039
- Policy H3: Parish Housing Requirements 2021 – 2039
- Policy H11: Meeting Gypsies, Travellers and Travelling Showpeoples' Needs

[115] http://jncc.defra.gov.uk/pdf/RIS/UK11013.pdf [accessed 01/10/2018]
Note: Defra and Natural England have not produced a Conservation Advice package, instead focussing on the production of High Level Conservation Objectives. Natural England considers the Conservation Advice packages for the overlapping European Marine Site designations to be, in most cases, sufficient to support the management of the Ramsar interests.
[116] http://publications.naturalengland.org.uk/file/5185212862431232 [Accessed 06/12/22]

- Policy H12: Intensification Sites
- Policy E1: Meeting Employment Land Needs
- Policy E3: Addressing Horticultural Needs
- Policy E5: Retail Strategy and New Development
- Policy A15: Loxwood

Site Allocations

10.11 There are no site allocations within close proximity of this SAC site. The closest site allocation is approximately 12 km south west of the SAC/ SPA and Ramsar. As a result, impacts on functionally-linked habitat do not need further discussion.

10.12 The Local Plan does not allocate any new residential development north of the South Downs National Park Authority boundary. However, it does allocate a quantum of growth to both Loxwood, Wisborough Green, Kirdford and Plaistow and Ifold parishes (220 dwellings to Loxwood (Policy A15), 75 to Wisborough Green, 50 to Kirdford and 25 to Plaistow and Ifold). Actual sites will be identified in the respective neighbourhood plans in due course Wisborough Green Parish is over 5km north of the SAC/SPA and Ramsar site.

10.13 Potential linking impact pathways are as follows:

- Water quality, level and flow - water neutrality

Appropriate Assessment

Reduced Water Quantity, Level and Flow – Water Neutrality

10.14 Excessive changes to the hydrological integrity, such as through effects on water flow and volume, of European Sites are most likely to be the consequence of increased water abstraction for the public water supply and surface water run-off from impermeable urban surfaces.

10.15 The Arun Valley SAC is designated for its population of little whorlpool ram's-horn snails and Natural England's Site Improvement Plan highlights that a maintenance of adequate water levels (0.3cm below ditch neck) is critical to the survival and migration of this species. Furthermore, the Ramsar is designated for its outstanding assemblage of wetland plants and invertebrates, all of which depend on appropriate water levels throughout at least parts of their life cycle. The SAC has a relatively narrow hydrological catchment and its water level is primarily maintained by a few key rivers that traverse the plain.

10.16 Natural England advised Chichester District Council by way of a Position Statement issued on 21 September 2021[117] that they were concerned about the Pulborough groundwater abstraction and the effect they consider it has on water levels/flows in the Arun Valley SAC and Ramsar site. Natural England believe the abstraction at Pulborough is having an effect on Amberley Brooks SSSI and Pulborough Brooks SSSI, which form parts of the SAC, SPA and Ramsar site. It stated: '*As it cannot be concluded that the existing abstraction within Sussex North Water Supply Zone is not having an impact on the Arun Valley site, we advise that developments within this zone must not add to this impact*'.

10.17 A further advice note was issued in February 2022[118] that detailed that Natural England is undertaking a full integrated condition assessment of the SSSI sites that make up the SAC/SPA and Ramsar and that the present indication, on the basis of the water levels is that the site's condition would be 'Unfavourable'. However, the final results are yet to be published, although existing abstraction cannot be ruled out as having an adverse effect and if further development requires increased abstraction such development is likely to have an adverse effect on the SAC/Ramsar.

10.18 Natural England advised in February 2022 that they are "*closely involved with the relevant local authorities, the Environment Agency and Southern Water in developing a long-term strategy to*

[117] Position_statement_on_Water_Neutrality_Sept_21_2021.pdf (chichester.gov.uk) [Accessed 02/12/22]
[118] Water_Neutrality_Advice_Note_Feb_2022_V21.pdf (chichester.gov.uk) [Accessed 02/12/22]

integrate Water Neutrality into the relevant Local Plans.' The affected planning authorities have worked together to undertake and complete this work that has now been published. Natural England have issued a statement in November 2022[119] endorsing the mitigation strategy put forward within the Sussex North Water Neutrality Study: Part C – Mitigation Strategy[120] undertaken by JBA Consulting on behalf of the affected authorities, Crawley Borough Council and Chichester and Horsham District Councils.

10.19 The main strategy of the mitigation document is to ensure that the Water Resource Zone is 'water neutral' in other words for every new development, total water use in the region after the development must be equal to or less than the total water use in the region before the new development. This means to reduce the demand for water from the new development as much as possible and any remaining demand would be offset elsewhere within the region.

10.20 The mitigation strategy recommends a water efficiency target of 85 litres per person per day (lppd) for all newly built residential development, which is much more stringent than the current Building Regulations Optional Standard of 110 lppd. For non-household development, a score of three credits within the water (Wat 01 Water Consumption) issue category should be achieved for the BREEAM New Construction Standard, a 40% reduction compared to baseline standards. This, however, will not ensure complete water neutrality on the SAC/Ramsar. There will still be a shortfall between demand and neutrality which will need to be mitigated through offsetting. Offsetting is both costly and requires capacity, which is not unlimited in the Sussex North WRZ. Additionally, offsetting must be in place before the water demand is generated i.e. before the dwellings are occupied. If it is not possible to provide sufficient offsetting, either as it cannot be delivered fast enough or not enough is available to meet demand, this will restrict the amount of growth that can go ahead.

10.21 Chichester Local Plan provides a policy to ensure the capture of the water neutrality for the Arun Valley SAC/Ramsar in Policy NE17: Water Neutrality which states: '*1. All development within the Sussex North Water Resource Zone (WRZ) will need to demonstrate water neutrality through water efficient design and offsetting of any net additional water use of the development. This is to be achieved by ensuring that:*

Water Efficient Design

a) New residential development is designed to utilise no more than 85 litres of mains supplied water per person per day;
b) New non-domestic buildings to achieve a score of 3 credits within the water (WAT01 Water Consumption) issue category for the BREEAM Standard or an equivalent standard set out in any future update; and

Offsetting Water Use

c) Development proposals must demonstrate that having achieved water efficient design, any remaining mains-supplied water use from the development is offset such that there is no net increase in mains-supplied water use within the WRZ compared with pre-development levels.

Offsetting Schemes

- A local planning authority-led water offsetting scheme will be introduced to bring forward development supported by Local and Neighbourhood Plans. The authorities will manage access to the offsetting scheme to ensure that sufficient water capacity exists to accommodate planned growth within the plan period.
- Development proposals are not required to utilise the local planning authority-led offsetting scheme and may bring forward their own offsetting schemes. Offsetting schemes can be located within any part of the WRZ, with the exception that offsetting will not be accepted within the Bramber/Upper Beeding area identified on the *WRZ map*, unless the application site is located within the Bramber/Upper Beeding area.

Alternative Water Supply

[119] https://www.chichester.gov.uk/media/37580/Natural-Englands-endorsement-of-Sussex-Water-Neutrality-Study-Part-C-Mitigation-Strategy/pdf/Natural_England_s_endorsement_of_Sussex...igation_Strategy_Final_24_Nov_2022.pdf [Accessed 02/12/22]
[120] https://www.chichester.gov.uk/media/37581/Sussex-North-Water-Neutrality-Study-Part-C-Mitigation-Strategy/pdf/EYP-JBAU-XX-XX-RP-EN-0004-A1-C01-Water_Neutrality_Assessment_Part_C.pdf [Accessed 02/12/22]

- Where an alternative water supply is to be provided, the statement will need to demonstrate that no water is utilised from sources that supply the Sussex North WRZ. The acceptability of alternative water supplies will be considered on a case-by-case basis.

Water Neutrality Statement

- A water neutrality statement will be required to demonstrate how policy requirements have been met in relation to water supply, water efficient design and offsetting. The statement shall provide, as a minimum, the following:
- baseline information relating to existing water use within a development site;
- full calculations relating to expected water use within a proposed development; and
- full details of how any remaining water use will be offset.'

10.22 Additionally, the Chichester Local Plan also provides protective policies for European sites in general including Policy NE6: Chichester's Internationally and Nationally Designated Habitats, which includes a specific paragraph regarding water neutrality stating: '*Development will only be permitted where it would not lead to an adverse effect upon the integrity, either alone or in-combination, directly or indirectly, on internationally, European and nationally important habitat sites including: a) Water neutrality in the Sussex North Water Resource Zone – Arun Valley SPA and SAC. Development proposals within the Sussex North Water Resource Zone will provide mitigation for any net per capita increase in water consumption, as defined in the water budget, in accordance with Policy NE16 (Water Management and Water Quality*)'.

10.23 Given there is a specific policy framework and a mitigation strategy in place for ensuring water neutrality in combination, it can be concluded that the Chichester Local Plan will not cause an adverse impact on the Arun Valley SAC/SPA or Ramsar with regards to water neutrality.

11. Butser Hill SAC

Introduction

11.1 Butser Hill is a chalk massif with a discontinuous cap of clay-with-flints. The massif has been eroded to leave a series of deep combes in which the modern spring-line is about 1 km from the combe-head. The combes on the south-east flank support dense yew *Taxus baccata* woods and the remaining slopes of the Hill are sheep-grazed chalk grassland. The calcareous yew woods are outstanding examples of a habitat with a very small representation in Britain. The series of vegetation types represented in the SSSI – chalk grassland, mixed scrub and yew wood – were the subject of a series of pioneer ecological studies.

Reasons for Designation

11.2 Butser Hill qualifies as a SAC for its habitats. The site contains the Habitats Directive Annex I habitats of:

- Dry grasslands and scrublands on chalk or limestone: the richest terricolous lichen flora of any chalk grassland site in England. Also supports the distinctive *Scapanietum asperae* or southern hepatic mat association of leafy liverworts and mosses on north-facing chalk slopes. This association is very rare in the UK and Butser Hill supports the largest known example.
- Yew-dominated woodland

Conservation Objectives[121]

11.3 *'With regard to the SAC and the natural habitats and/or species for which the site has been designated (the 'Qualifying Features' listed below), and subject to natural change;*

11.4 *Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring;*

- *The extent and distribution of qualifying natural habitats*
- *The structure and function (including typical species) of qualifying natural habitats, and*
- *The supporting processes on which qualifying natural habitats rely'*

Historic Trends and Current Pressures

11.5 The site has traditionally been vulnerable to the effects of surrounding agriculture – i.e. spray –drift causing eutrophication. The SAC is now within the boundary of the South Downs National Park. Most of the SAC is in favourable condition, and landowners, in conjunction with English Woodland Grant Schemes have been removing inappropriate conifers and clearing excessive scrub.

11.6 The environmental requirements of Butser Hill SAC are mainly:

- Maintenance of grazing
- Minimal air pollution – nitrogen deposition may cause reduction in diversity, sulphur deposition can cause acidification
- Absence of direct fertilisation
- Well-drained soils
- Controlled recreational pressure
- No spray-drift (i.e. eutrophication) from surrounding intensive arable land.

[121] http://publications.naturalengland.org.uk/file/5684004183343104 [accessed 15/10/2018]

Potential Effects Linking to the Local Plan

11.7 The screening assessment undertaken in the table in Appendix A, identifies that the following policies and site allocations have the potential to link to this European designated site and result in likely significant effects. These are as follows:

Policies

- Policy H1: Meeting Housing Needs
- Policy H2: Strategic Locations / Allocations 2021 – 2039
- Policy H3: Non-Strategic Parish Housing Requirements 2021 – 2039
- Policy H11: Meeting Gypsies, Travellers and Travelling Showpeoples' Needs
- Policy H12: Intensification Sites
- Policy E1: Meeting Employment Land Needs
- Policy E3: Addressing Horticultural Needs
- Policy E5: Retail Strategy and New Development

Site Allocations

11.8 There are no site allocations located close to the SAC. The closest strategic location for development is the Southbourne Broad Location for Development which is approximately 12km south of the SAC

11.9 Potential linking impact pathways are as follows:

- Atmospheric pollution

Appropriate Assessment

Atmospheric Pollution

11.10 Habitats for which Butser Hill SAC is designated are sensitive to changes in atmospheric pollution. At its closest, Butser Hill SAC is 5m from the A3. The closest allocation to the SAC is in Southbourne which is over 12km from the SAC boundary.

11.11 The main designated habitat for this SAC is calcareous grassland. According to APIS, the minimum Critical Load of nitrogen for calcareous grassland is 15 kg/N/ha/yr. APIS also identifies that the existing nitrogen deposition rate at the transect location is approximately 77 kg/N/ha/yr. Therefore, nitrogen deposition rates are already far in exceedance of the critical load. The Critical Level for ammonia for chalk grassland is 3 µg NH3/m3. This is only exceeded at the edge of the transect (closest to the road), otherwise the SAC falls below this concentration.

11.12 With regards to NOx the critical level is set at 30 µg/m3. The data shows the NOx Critical Level is not exceeded. As both baseline and all future concentrations of NOx and ammonia are forecast to be below the Critical Levels it can be concluded that NOX and ammonia itself will not have an adverse impact upon the SAC and will only be considered further within the assessment as a source of nitrogen deposition.

Nitrogen results

11.13 An assessment of air quality was undertaken for both alone impacts i.e. the Chichester Local Plan and in-combination e.g. Chichester Local Plan in combination with all other growth from neighbouring authorities. The closest points for each result are shown in Tables 14 and 15 below. In this section discussion will focus on the contribution of the Chichester Local Plan alone.

Table 13. Modelled air quality results for road links relevant to Butser Hill European site (in-combination)

Receptor	Road Link	Critical Load	Base Year	Future Year – DN	Future Year – DS	Absolute Change
BSHL	A3	5	78.85	62.65	71.01	8.36

Table 14. Modelled air quality results for road links relevant to Butser Hill European site (in isolation)

Receptor	Road Link	Critical Load	Base Year	Future Year – DN	Future Year – DS	Absolute Change
BSHL	A3	5	78.85	70.84	71.01	0.18

11.14 Data shows the minimum total annual mean nitrogen deposition to the SAC in the vicinity of the road during the Base year of 39.81 kgN/ha/yr at 200m from the road, rising to 78.85 kgN/ha/yr closest to the road. Therefore, the SAC is already far in exceedance of the Critical Load for nitrogen deposition on calcareous grassland in the Base year. However, Paragraph 5.26 of Natural England guidance[122] states that '*An exceedance alone is insufficient to determine the acceptability (or otherwise) of a project'*. Where an exceedance of the Critical Load is expected, it is also necessary to consider whether the forecast dose will be imperceptible. As per paragraph 4.25 of same guidance '*…1% of critical load/level are considered by Natural England's air quality specialists (and by industry, regulators and other statutory nature conservation bodies) to be suitably precautionary, as any emissions below this level are widely considered to be imperceptible…There can therefore be a high degree of confidence in its application to screen for risks of an effect'*.

11.15 As the deposition rate is already in exceedance of the Critical Load, this assessment therefore first looks at the contribution of the Chichester Local Plan in terms of a significant increase above the Critical Load. For Butser Hill SAC, 1% of the Critical Load is 0.15 kgN/ha/yr.

11.16 In order to assess the contribution of the Chichester Local Plan alone it is necessary to separate it from the rest of development in the South Downs National Park Authority, Horsham District Council and other neighbouring authorities. The contribution of the Local Plan alone is shown by the difference between Do Minimum 2040 and the Do Something 2040. In line with IAQM guidance, data for the immediate roadside is not used in the assessment due to reduced model accuracy that close to the road, so the data for 10m from the roadside are reported below as a worst-case.

11.17 It can be seen that, at 10m from the roadside, the Do Minimum deposition rate is 70.84 kgN/ha/yr while the Do Something deposition rate is 71.01 kgN/ha/yr. The difference between the Do Minimum 2040 and Do Something 2040 scenario is 0.18 kgN/ha/yr, which is very slightly greater than 1% of the Critical Load (15 kgN/ha/yr) for Butser Hill SAC. As such the contribution to nitrogen deposition at the SAC from the Chichester Local Plan is small but needs further investigation.

Ecological interpretation

11.18 Effects on Butser Hill SAC due to increased nitrogen from Chichester Local Plan-derived traffic growth cannot be dismissed based on purely numerical criteria as the worst-case deposition due to the Local Plan marginally exceeds 1% of the critical level/load. However, Natural England guidance makes it clear that exceedance of these thresholds does not automatically mean an adverse effect on integrity will arise. Paragraph 5.28 of that guidance states '*In practice, where a site is already exceeding a relevant benchmark, the extent to which additional increments from plans and projects would undermine a conservation objective to 'restore' will involve further consideration of whether there is credible evidence that the emissions represent a real risk that the ability of other national or local measures and initiatives to otherwise reduce background levels will be compromised in a meaningful manner'*.

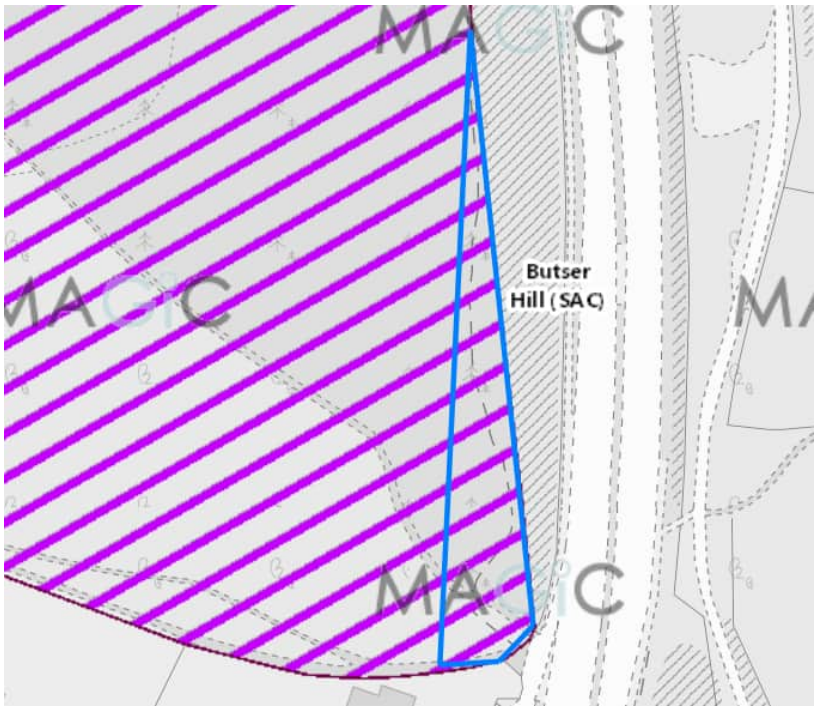
11.19 Firstly, it is necessary to consider the conservation objectives for the SAC. Within that context, it should be noted that the 2020 condition assessment for the SSSI underlying the SAC state that '*The chalk grassland at Butser Hill SSSI is, overall, in favourable condition with… typical chalk grassland flora*

[122] http://publications.naturalengland.org.uk/publication/4720542048845824

which is very rich and varied… The floristic composition varies over the site, but all areas are floristically diverse and none are under [within] *acceptable limits'*. Therefore, the current highly elevated nitrogen deposition rates at the SAC do not appear to be having a negative effect on the key features of the site. That said, one of the targets within the Conservation Objectives Supplementary Advice[123] is to "*Restore concentrations and deposition of air pollutants to at or below the site-relevant Critical Load or Level values given for this feature of the site on the Air Pollution Information System (www.apis.ac.uk).*"

11.20 Key factors to consider in interpreting the air quality modelling results are how much of the SAC would be affected by the forecast impacts, how important is traffic as an overall source of nitrogen at the SAC and what is the current and likely trend for these pollutants from various sources. All of these factors will influence which sources of nitrogen are most important to control and reduce in order to ensure the SAC achieves the above-mentioned conservation objective target of restoring air quality to below critical loads/levels.

11.21 Since the contribution of Chichester Local Plan to elevated nitrogen and ammonia in the SAC is only slightly above an imperceptible level even at the closest point on the A3 to the SAC only 0.1% of the SAC is affected to a greater than imperceptible degree by the Local Plan. Therefore 99.9% of the SAC will be affected to an imperceptible degree by the Chichester Local Plan and the 0.1% that will be affected would only be subject to a small (c. 1.2% of the critical level/load) increase in pollution and only represents a small sliver of habitat closest to the road (see screencap below, affected area within the blue line).

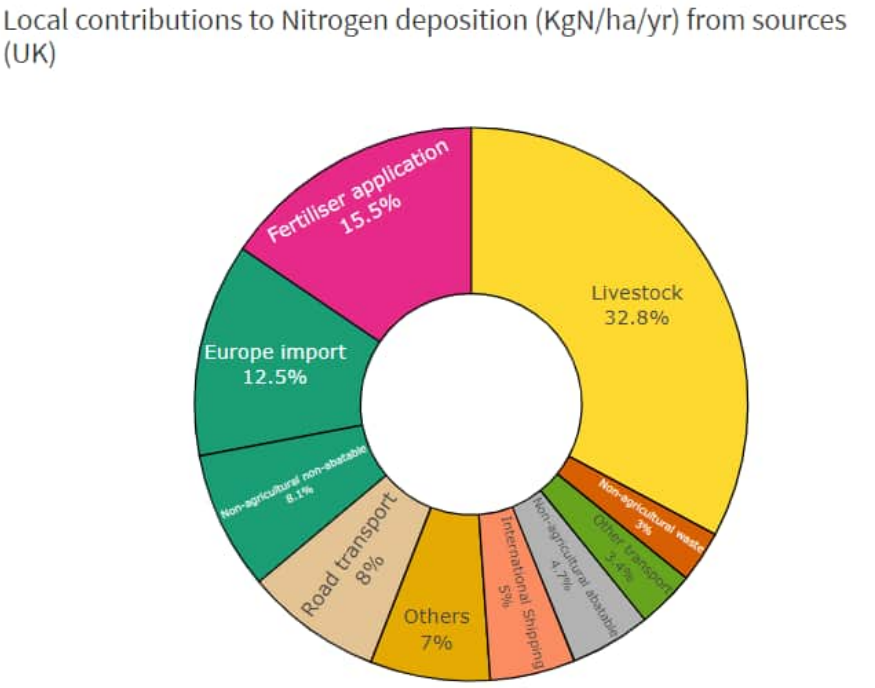


11.22 Moreover, for nitrogen deposition this would not constitute a ***net*** increase but rather an increase compared to a hypothetical scenario of no traffic growth. Even with the Chichester Local Plan and all other forecast traffic growth there would still be a large ***net reduction*** (improvement) in nitrogen deposition of more than 8 kgN/ha/yr.

11.23 In addition, unlike some other SACs the Air Pollution Information System shows that road traffic is a minor source of nitrogen at Butser Hill SAC (8%). In contrast, nearly 50% (48.3%) of atmospheric nitrogen at the SAC derives from agriculture (fertiliser and livestock combined). Unlike road traffic (which has a very localised impact zone) agriculture will affect nitrogen deposition across the entire SAC.

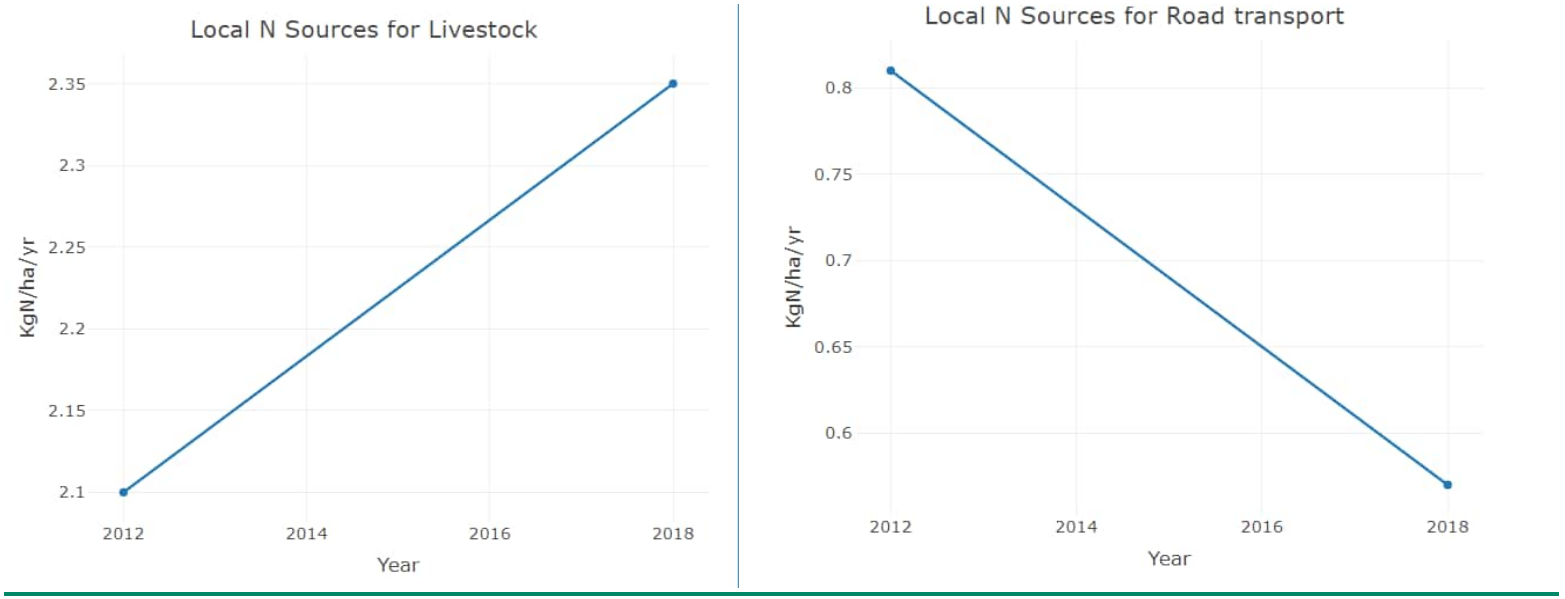
[123] Available at http://publications.naturalengland.org.uk/file/5113429933424640 [accessed 25/11/2022]

Figure 4. Source apportionment for nitrogen deposition at Butser Hill SAC, taken from APIS



11.24 Therefore, even if the A3 was closed entirely it would have a relatively minimal benefit on nitrogen deposition at Butser Hill SAC. Moreover, road traffic is not only a small contributor but is getting smaller (better) as time goes by, whereas agricultural nitrogen (already by far the biggest source of nitrogen) is getting worse. This can be seen from the graphs below, excerpted from APIS.

Figure 5. Trend data for nitrogen/ammonia sources at Butser Hill SAC, taken from APIS. While traffic-related nitrogen is improving, other sources of nitrogen are deteriorating (increasing)



11.25 In addition, AECOM have taken no account of the ban on petrol and diesel cars and vans from 2030 in our modelling, so even the small contribution reported above for Chichester Local Plan is probably an overestimate, potentially to a considerable degree. Given the contribution of traffic to nitrogen at the SAC is only 8% now, and other more major sources are getting bigger whereas traffic is getting smaller, it is perfectly possible that the contribution could have fallen close to zero by 2040 without any need for local intervention, given expected continued falls in traffic emissions and expected increases in agricultural emissions.

11.26 It is therefore concluded that traffic growth on the A3 over the Local Plan period will not materially interfere with the conservation objective target for this SAC to reduce air pollution to below critical levels and loads. Traffic is only a minor source of nitrogen at this SAC (8%) and only affects a very small area very local to the A3. Nitrogen deposition due to traffic has been improving since at least 2012 and is expected to continue to improve in the future, such that even allowing for traffic growth there will still be a large net reduction in nitrogen deposition by 2040. The contribution of Chichester Local Plan to nitrogen will be small (a maximum of 1.2% of the critical load) and very localised and is probably over-estimated due to inability at this stage to account for the large uptake of electric vehicles that can be expected in the second half of the plan period. In order for the SAC to meet its conservation objective targets it will clearly be necessary for the focus to be on agriculture which collectively currently accounts for almost 50% of atmospheric nitrogen at the SAC, is getting worse, and is not related to Local Plans, rather than traffic.

11.27 It is therefore concluded that there will be no adverse effect on the integrity of Butser Hill SAC either alone, or in combination with other plans or projects.

12. Kingley Vale SAC

Introduction

12.1 The Kingley Vale SAC comprises 208ha of chalk grassland, scrub, mixed oak *Quercus* sp. and ash woodland and ancient yew forest. The reserve is a steep sided dry valley, the bottom of which is covered in ancient yew forest. The slopes of the valley support up to 50 species of flowering plant and grasses per square metre.

Reasons for Designation[124]

12.2 The Kingley Vale valley qualifies as a SAC due to the following Annex I habitats:

- Semi-natural dry grasslands and scrubland facies: on calcareous substrates *Festuco-Brometalia* for which the area is considered to support a significant presence;
- Yew-dominated woodland for which this is considered to be one of the best areas in the UK.

Conservation Objectives[125]

12.3 *'With regard to the SAC and the natural habitats and/or species for which the site has been designated (the 'Qualifying Features' listed below), and subject to natural change;*

12.4 *Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring;*

- *The extent and distribution of qualifying natural habitats and habitats*
- *The structure and function (including typical species) of qualifying natural habitats, and*
- *The supporting processes on which qualifying natural habitats rely'*

Historic Trends and Current Pressures

12.5 The long-term conservation of the yew forest requires the maintenance of nurse scrub habitat and the regulation of numbers of resident deer. Current management practices address these problems. The threat to characteristic chalk grassland of scrub invasion is considered to be adequately countered by the cutting and grazing regimes currently employed.

12.6 The key vulnerabilities to the SAC are:

- Over grazing by deer
- Scrub invasion
- Management of cutting and grazing regimes
- Atmospheric pollution

Potential Effects Linking to the Local Plan

12.7 The screening assessment undertaken in the table in Appendix A identifies that the following policies and site allocations have the potential to link to this European designated site and result in likely significant effects. These are as follows:

[124] http://jncc.defra.gov.uk/protectedsites/sacselection/sac.asp?EUcode=UK0012767 [accessed 15/10/2018]
[125] [125] Natural England. European Site Conservation Objectives for Chichester and Langstone Harbours Special Protection Area (2014) Available: http://publications.naturalengland.org.uk/publication/5789102905491456 [Accessed: 15/10/2018] http://publications.naturalengland.org.uk/file/6012259255975936 [accessed 1215/10/2018]

Policies

- Policy H1: Meeting Housing Needs
- Policy H2: Strategic Locations / Allocations 2021 – 2039
- Policy H3: Non-Strategic Parish Housing Requirements 2021 – 2039
- Policy H11: Meeting Gypsies, Travellers and Travelling Showpeoples' Needs
- Policy H12: Intensification Sites
- Policy E1: Meeting Employment Land Needs
- Policy E3: Addressing Horticultural Needs
- Policy E5: Retail Strategy and New Development

Site Allocations

12.8 The closest strategic allocations to this site are:

- Policy A13: Southbourne Broad Location for Development,
- Policy A6: Land west of Chichester; and,
- Policy A12: Chidham and Hambrook Parish

12.9 All of these are approximately 4 km south of the SAC. Limited intensification of two existing gypsy and traveller sites are also proposed approximately 3.5-5km from the SAC at Greenacre, Cemetery Lane and Tower View Nursery.

12.10 Potential linking impact pathways are as follows:

- Atmospheric Pollution

Appropriate Assessment

Atmospheric Pollution

12.11 Habitats for which Kingley Vale SAC is designated are sensitive to changes in atmospheric pollution. At its closest, Kingley Vale SAC is 130m from the B2141. The closest strategic residential allocation to the SAC is Land at Southbourne, and West of Chichester at approximately 4km from the SAC boundary.

12.12 The main designated habitat for this SAC is yew dominated woodland. According to APIS, the minimum Critical Load of nitrogen for coniferous woodland, the closest match, is 5 kg/N/ha/yr. However, the 5 kg/N/ha/yr is only utilised for coniferous forests where lichens and free-living algae are an important feature of the site. Lichens are not important features of yew dominated woodland, and therefore APIS advises in the absence of important lichens, a more appropriate critical load would be 10 kg/N/ha/yr126. APIS also identifies that the existing nitrogen deposition rate at the transect location is on average approximately 27.4 kg/N/ha/yr. Therefore, nitrogen deposition rates are already far in exceedance of the critical load. The Critical Level for ammonia for coniferous woodland is 3 µg NH3/m3, the SAC falls below this concentration.

12.13 With regards to NOx the critical level is set at 30 µg/m3. The data shows the NOx Critical Level is not exceeded. As both baseline and all future concentrations of NOx and ammonia are forecast to be below the Critical Levels it can be concluded that NOX and ammonia itself will not have an adverse impact upon the SAC and will only be considered further within the assessment as a source of nitrogen deposition.

[126] Indicative values within nutrient nitrogen critical load ranges for use in air pollution impact assessments | Air Pollution Information System (apis.ac.uk) [Accessed 09/12/2022]

Nitrogen results

12.14 An assessment of air quality was undertaken for both alone impacts i.e. the Chichester Local Plan and in-combination e.g. Chichester Local Plan in combination with all other growth from neighbouring authorities. The closest points for each result are shown in Tables 16 and 17 below. In this section discussion will focus on the contribution of the Chichester Local Plan alone.

Table 15. Modelled air quality results for road links relevant to Kingley Vale European site (in-combination)

Receptor	Road Link	Critical Load	Base Year	Future Year – DN	Future Year – DS	Absolute Change
KGVE	B2141	5	30.53	25.95	26.14	0.19

Table 16. Modelled air quality results for road links relevant to Kingley Vale European site (in isolation)

Receptor	Road Link	Critical Load	Base Year	Future Year – DN	Future Year – DS	Absolute Change
KGVE	B2141	5	30.53	26.12	26.14	0.02

12.15 Data shows the minimum total annual mean nitrogen deposition to the SAC in the vicinity of the road during the Base year of 30.37 kgN/ha/yr at 200m from the road, rising to 30.53 kgN/ha/yr closest to the road. Therefore, the SAC is already far in exceedance of the Critical Load for nitrogen deposition on coniferous woodland in the Base year. However, Paragraph 5.26 of Natural England guidance[127] states that '*An exceedance alone is insufficient to determine the acceptability (or otherwise) of a project*'. Where an exceedance of the Critical Load is expected, it is also necessary to consider whether the forecast dose will be imperceptible. As per paragraph 4.25 of same guidance '*…1% of critical load/level are considered by Natural England's air quality specialists (and by industry, regulators and other statutory nature conservation bodies) to be suitably precautionary, as any emissions below this level are widely considered to be imperceptible…There can therefore be a high degree of confidence in its application to screen for risks of an effect*'.

12.16 As the deposition rate is already in exceedance of the Critical Load, this assessment therefore first looks at the contribution of the Chichester Local Plan in terms of a significant increase above the Critical Load. For Kingley Vale SAC, 1% of the Critical Load is 0.1 kgN/ha/yr.

12.17 In order to assess the contribution of the Chichester Local Plan alone it is necessary to separate it from the rest of development in the South Downs National Park Authority, Horsham District Council and other neighbouring authorities. The contribution of the Local Plan alone is shown by the difference between Do Minimum 2040 and the Do Something 2040. In line with IAQM guidance, data for the immediate roadside is not used in the assessment due to reduced model accuracy that close to the road, so the data for 10m from the roadside are reported below as a worst-case.

12.18 It can be seen that, at 10m from the roadside, the Do Minimum deposition rate is 26.11 kgN/ha/yr while the Do Something deposition rate is 26.14 kgN/ha/yr. The difference between the Do Minimum 2040 and Do Something 2040 scenario is 0.03 kgN/ha/yr, which less than 1% of the Critical Load (5 kgN/ha/yr) for Kingley Vale SAC.

12.19 Moreover, the Local Plan provides the following policies that would reduce atmospheric pollution contributions stemming from development:

- Policy NE21: Air Quality: This policy aims to improve air quality within the district of Chichester. This includes minimising traffic generation, Air Quality Management Areas and air quality assessments.

[127] http://publications.naturalengland.org.uk/publication/4720542048845824 [Accessed 06/12/22]

- Policy T2: Transport and Development: This policy ensures that the development is safe, sustainable, connected and accessible by active and public travel networks and the use of air quality assessments where significant adverse effects are likely.
- Policy T3: Active Travel – Walking and Cycling Provision: Promotes sustainable transport and prioritises walking an cycling to remove vehicles from the roads.
- Policy NE1: Stand-alone Renewable Energy: The provision of renewable energy has the ability to reduce atmospheric pollution contributions.

12.20 As such given the contribution to nitrogen deposition at the SAC from the Chichester Local Plan is below 1% of the critical load and the Plan provides a framework to reduce atmospheric pollution contributions further, there will be no adverse effect the European site.

13. Duncton to Bignor Escarpment SAC

Introduction

13.1 Duncton to Bignor Escarpment consists of 214 ha of scarp slope woodland notified for its beech forests located within the South Downs National Park. The beech forest occurs both on steep scarp slopes and on more gently sloping hillsides in a mosaic with ash woodland, scrub and grassland. The diverse nature of the site helps support rare plants and a rich snail fauna. It is considered to be one of the best examples of beech forest in the country.

Reasons for Designation

13.2 Duncton to Bignor Escarpment qualifies as a SAC for its habitats. The site contains the Habitats Directive Annex I habitats of:

- *Asperulo-Fagetum* beech forests; Beech forest on neutral to rich soils

Conservation Objectives[128]

13.3 *'With regard to the SAC and the natural habitats and/or species for which the site has been designated (the 'Qualifying Features' listed below), and subject to natural change;*

13.4 *Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring;*

- *The extent and distribution of qualifying natural habitats*
- *The structure and function (including typical species) of qualifying natural habitats, and*
- *The supporting processes on which qualifying natural habitats rely'*

Historic Trends and Current Pressures

13.5 The Site Improvement Plan for the site states that there are no current pressures affecting the SAC. However, the Supplementary Advice for Conservation Objectives[129] (SACO) mentions that the habitat type is considered sensitive to changes in air quality.

13.6 The key vulnerabilities to the SAC are:

- Maintaining key habitat connectivity
- Maintaining and restoring supporting habitat
- Maintaining and restoring appropriate variations in the woodland structure
- Maintaining and resorting the abundance of standing and fallen dead and decaying wood
- Ensuring appropriate distribution of size and age classes of trees and shrubs in the habitat
- Maintaining appropriate levels of herbivore grazing to reduce scrub but permit regeneration of key habitat
- Maintaining soil structure and function
- Maintaining deposition of air pollutants at or below cricital levels
- Maintain natural hydrological regime
- Maintain artificial lighting at lowest level

[128] http://publications.naturalengland.org.uk/file/6066421708881920 [Accessed 06/12/22]
[129] http://publications.naturalengland.org.uk/file/5226310331006976 [Accessed 06/12/22]

Potential Effects Linking to the Local Plan

13.7 The screening assessment undertaken in the table in Appendix A identifies that the following policies and site allocations have the potential to link to this European designated site and result in likely significant effects. These are as follows:

Policies

- Policy H1: Meeting Housing Needs
- Policy H2: Strategic Locations / Allocations 2021 – 2039
- Policy H3: Non-Strategic Parish Housing Requirements 2021 – 2039
- Policy H11: Meeting Gypsies, Travellers and Travelling Showpeoples' Needs
- Policy H12: Intensification Sites
- Policy E1: Meeting Employment Land Needs
- Policy E3: Addressing Horticultural Needs
- Policy E5: Retail Strategy and New Development

Site Allocations

13.8 The closest site allocations to this SAC are at Tangmere; Policy A14 Land West of Tangmere, and A19 Land at Chichester Business Park Tangmere, which are approximately 9km and 8.5km respectively south west of the SAC. Additionally, there is a Horticultural HDA just south of Easthampnett (Policy E3) which is approximately 8.5km south west of the SAC. All other strategic allocations are over 10km from the SAC. The Local Plan also allocates a quantum of dwellings for the Boxgrove Parish (Policy H3) which will be allocated specific sites within a subsequent Neighbourhood Plan. Boxgrove Parish at its closest is approximately 4.6 km south west of the SAC.

13.9 Potential linking impact pathways are as follows:

- Atmospheric Pollution

Appropriate Assessment

Atmospheric Pollution

13.10 The designated habitat for this SAC is beech woodland. According to APIS, the minimum Critical Load of nitrogen for beech woodland is 10 kg/N/ha/yr. APIS also identifies that the existing nitrogen deposition rate at the transect location is approximately 29 kg/N/ha/yr. Therefore, nitrogen deposition rates are already in exceedance of the critical load. The Critical Level for ammonia for beech woodlands is 3 µg NH_3/m^3. However, the site is also partially designated for its rich lichen and bryophyte populations which have a Critical Level of 1 µg NH_3/m^3. As such, it is this lower Level for ammonia that will be used in this assessment. With regards to NOx the critical level is set at 30 µg/m^3. The modelling does not forecast that the critical level for either NOx or ammonia will be exceeded. NOx and ammonia will only be considered further within the assessment as a source of nitrogen deposition.

Nitrogen results

13.11 An assessment of air quality was undertaken for both alone impacts i.e. the Chichester Local Plan and in-combination e.g. Chichester Local Plan in combination with all other growth from neighbouring authorities. In this section discussion will focus on the contribution of the Chichester Local Plan alone.

13.12 As previously detailed the lowest Critical Load for nutrient nitrogen deposition of the designated habitats within the SAC is 10 kgN/ha/yr for Atlantic acidophilous beech forests. Exceedance of this level can result in changes in ground vegetation and mycorrhiza, nutrient imbalance, changes to soil fauna, and changes to soil processes.

13.13 Data shows the minimum total annual mean nitrogen deposition to the SAC in the vicinity of the road during the Base year of 29.48 kgN/ha/yr at 200m from the road, rising to 32.23 kgN/ha/yr adjacent to the road. Therefore, the SAC is already in exceedance of the Critical Load for nitrogen deposition on beech woodland in the Base year. However, Paragraph 5.26 of Natural England guidance[130] states that '*An exceedance alone is insufficient to determine the acceptability (or otherwise) of a project'*. Where an exceedance of the Critical Load is expected, it is also necessary to consider whether the forecast dose will be imperceptible. As per paragraph 4.25 of same guidance '*…1% of critical load/level are considered by Natural England's air quality specialists (and by industry, regulators and other statutory nature conservation bodies) to be suitably precautionary, as any emissions below this level are widely considered to be imperceptible…There can therefore be a high degree of confidence in its application to screen for risks of an effect'*.

13.14 As the deposition rate is already in exceedance of the Critical Load, this assessment therefore first looks at the contribution of the Chichester Local Plan in terms of a significant increase above the Critical Load. For Duncton to Bignor Escarpment SAC, 1% of the Critical Load is 0.1 kgN/ha/yr.

13.15 In order to assess the contribution of the Chichester Local Plan alone it is necessary to separate it from the rest of development in the South Downs National Park Authority, Horsham District Council and other neighbouring authorities. The contribution of the Local Plan alone is shown by the difference between Do Minimum 2040 and the Do Something 2040. In line with IAQM guidance, data for the immediate roadside is not used in the assessment due to reduced model accuracy that close to the road, so the data for 10m from the roadside are reported below as a worst-case.

13.16 It can be seen that, at 10m from the roadside, the Do Minimum deposition rate is 29.07 kgN/ha/yr while the Do Something deposition rate is 29.36 kgN/ha/yr. The difference between the Do Minimum 2040 and Do Something 2040 scenario is 0.26 kgN/ha/yr, which is 2.6% of the critical load. The contribution of the Local Plan alone falls below 1% of the Critical Load by c. 60m from the road. As such the contribution to nitrogen deposition at the SAC from the Chichester Local Plan is small but needs further investigation, which is continued below.

Ecological interpretation

13.17 Effects on Duncton to Bignor Escarpment SAC due to increased nitrogen from Chichester Local Plan-derived traffic growth cannot be dismissed based on purely numerical criteria as the worst-case deposition due to the Local Plan exceeds 1% of the critical level/load. However, Natural England guidance makes it clear that exceedance of these thresholds does not automatically mean an adverse effect on integrity will arise. Paragraph 5.28 of that guidance states '*In practice, where a site is already exceeding a relevant benchmark, the extent to which additional increments from plans and projects would undermine a conservation objective to 'restore' will involve further consideration of whether there is credible evidence that the emissions represent a real risk that the ability of other national or local measures and initiatives to otherwise reduce background levels will be compromised in a meaningful manner'*.

13.18 Firstly, it is necessary to consider the conservation objectives for the SAC. The Site Improvement Plan states that there are no current issues affecting the Natura 2000 feature(s) that have been identified on this site. That said, one of the targets within the Conservation Objectives Supplementary Advice is to "*Restore concentrations and deposition of air pollutants to at or below the site-relevant Critical Load or Level values given for this feature of the site on the Air Pollution Information System (www.apis.ac.uk)."*

13.19 Key factors to consider in interpreting the air quality modelling results are how much of the SAC would be affected by the forecast impacts, how important is traffic as an overall source of nitrogen at the SAC and what is the current and likely trend for these pollutants from various sources. All of these factors will influence which sources of nitrogen are most important to control and reduce in order to ensure the SAC achieves the above-mentioned conservation objective target of restoring air quality to below critical loads/levels.

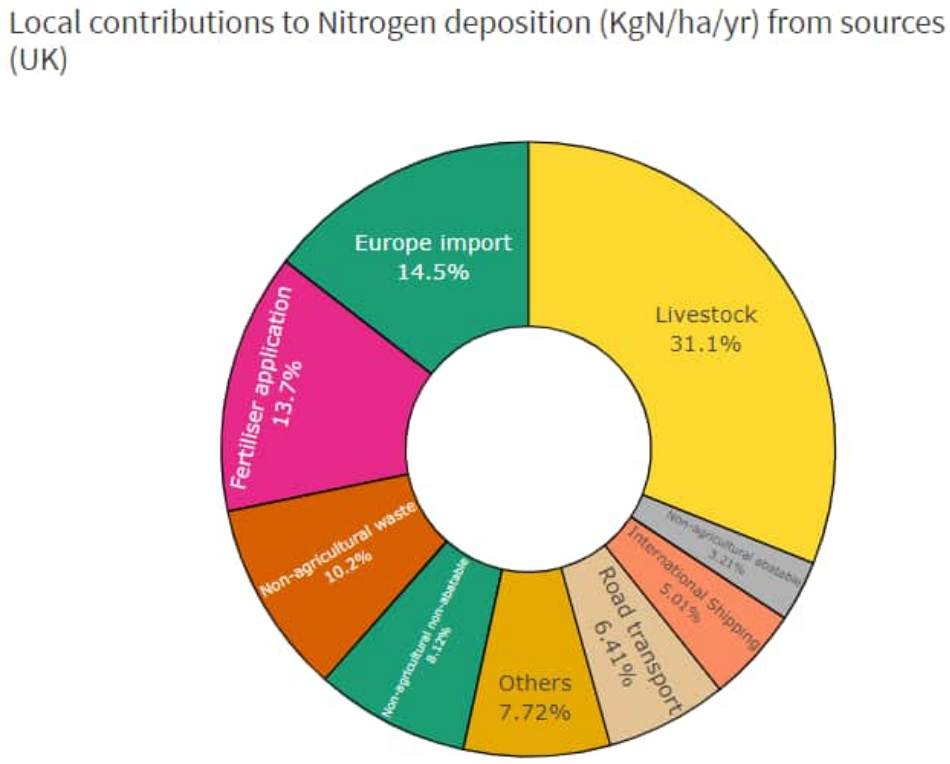
13.20 Since the contribution of Chichester Local Plan to elevated nitrogen and ammonia in the SAC falls to an imperceptible level by 60m from the roadside only 4% of the SAC is affected to a greater than imperceptible degree by the Local Plan. Therefore 96% of the SAC will be affected to an imperceptible

[130] http://publications.naturalengland.org.uk/publication/4720542048845824

degree by the Chichester Local Plan and the 4% that will be affected would only be subject to a small (c. 3% of the critical load) increase in pollution. Moreover, for nitrogen deposition this would not constitute a ***net*** increase but rather an increase compared to a hypothetical scenario of no traffic growth. Even with the Chichester Local Plan and all other forecast traffic growth there would still be a large ***net reduction*** (improvement) in nitrogen deposition of 2 kgN/ha/yr.

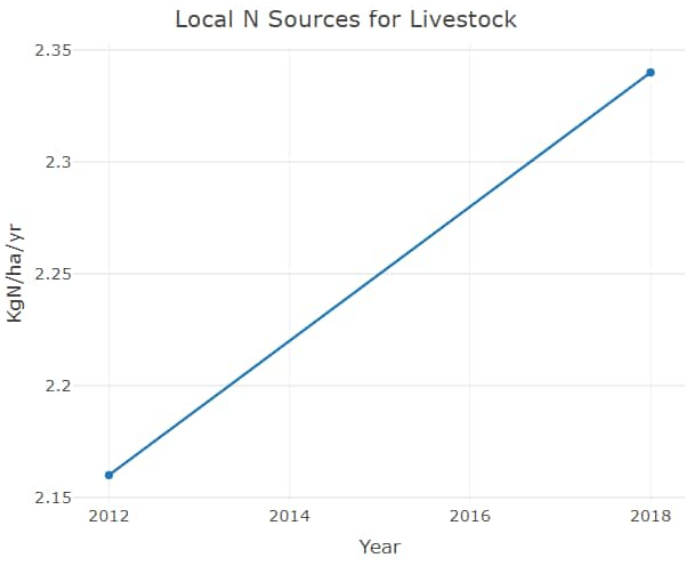
13.21 In addition, unlike some other SACs the Air Pollution Information System shows that road traffic is a minor source of nitrogen at Duncton to Bignor Escarpment SAC (6%). In contrast, nearly 50% (44.8%) of atmospheric nitrogen at the SAC derives from agriculture (fertiliser and livestock combined) and over 50% of total nitrogen at the SAC comes from just two sources: agriculture and 'non-agricultural waste' (e.g. composting, landfill and energy from waste). Unlike road traffic (which has a very localised impact zone) agriculture and non-agricultural waste will affect nitrogen deposition across the entire SAC.

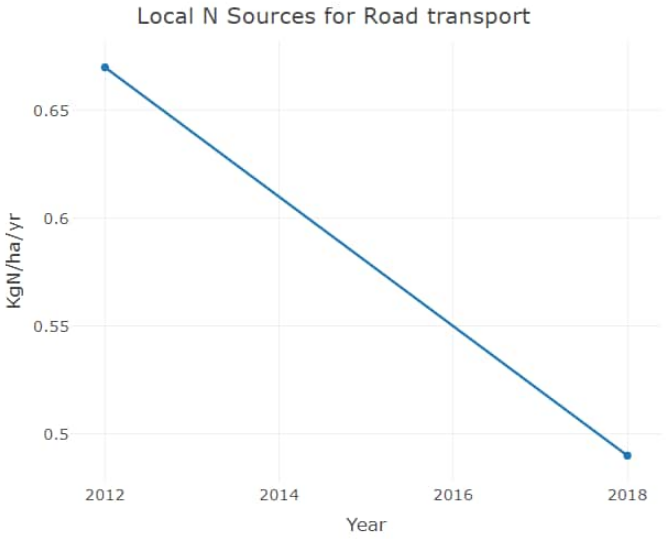
Figure 4. Source apportionment for nitrogen deposition at Duncton to Bignor Escarpment SAC, taken from APIS



13.22 Therefore, even if the A285 was closed entirely it would have a minimal benefit on nitrogen deposition at Duncton to Bignor Escarpment SAC. Moreover, road traffic is not only a small contributor but is also getting smaller (better) as time goes by, whereas agricultural nitrogen and non-agricultural waste (already by far the biggest sources of nitrogen) are both getting worse. This can be seen from the graphs below, excerpted from APIS.

Figure 5. Trend data for nitrogen/ammonia sources at Duncton to Bignor Escarpment SAC, taken from APIS. While traffic-related nitrogen is improving, other sources of nitrogen are deteriorating (increasing)





13.23 In addition, AECOM have taken no account of the ban on petrol and diesel cars and vans from 2030 in our modelling, so even the small contribution reported above for Chichester Local Plan is probably an overestimate, potentially to a considerable degree. Given the contribution of traffic to nitrogen at the SAC is only 6% now, and other more major sources are getting bigger whereas traffic is getting smaller, it is perfectly possible that the contribution could have fallen close to zero by 2040 without any need for local intervention, given expected continued falls in traffic emissions and expected increases in agricultural emissions.

13.24 Moreover, the affected area (Units 1, 2 and 3) of the SSSI have been heavily affected by land management (the most recent condition assessments state: '*The unit comprises of a large area which has been modified in the past and been re-planted by conifers. These have been removed and the area now consists of vegetation typical of disturbed soil*' and '*there has been recent forestry works carried out on this unit and as a result 30% of the unit has been felled, and the ground flora and soil have been heavily damaged by the forestry machinery*') and Unit 1 appears to be mainly ash woodland rather than beech woodland ('*The woodland is mainly comprised of ash which is dominant throughout*'). These both reduce the sensitivity of those particular management units to nitrogen deposition.

13.25 It is therefore concluded that traffic growth on the A285 over the Local Plan period will not materially interfere with the conservation objective target for this SAC to reduce air pollution to below critical levels and loads. Traffic is only a minor source of ammonia and nitrogen at this SAC (6%) and only affects an area local to the A285. Nitrogen deposition due to traffic has been improving since at least 2012 and is expected to continue to improve in the future, such that even allowing for traffic growth there will still be a large net reduction in nitrogen deposition by 2040. The contribution of Chichester Local Plan to nitrogen will be small (a maximum of 3% of the critical load) and very localised (imperceptible at distances greater than 60m from the road) and is probably over-estimated due to inability at this stage to account for the large uptake of electric vehicles that can be expected in the second half of the plan period.

13.26 In order for the SAC to meet its conservation objective targets it will clearly be necessary for the focus to be on agriculture and non-agricultural waste which collectively currently account for over 60% of atmospheric nitrogen at the SAC, are getting worse, and are not related to Local Plans, rather than traffic. This is recognised in the Supplementary Advice on the Conservation Objectives for the SAC which states '*It is recognised that achieving this* [air quality] *target may be subject to the development, availability and effectiveness of abatement technology and measures to tackle diffuse air pollution, within realistic timescales*'.

13.27 It is therefore concluded that there will be no adverse effect on the integrity of Duncton to Bignor Escarpment SAC either alone, or in combination with other plans or projects.

14. Recommendations and Conclusions

Summary of Recommendations

Recreational Pressure

Chichester and Langstone Harbour Solent Maritime and Pagham Harbour European sites

14.1 The following recommended policy text changes are made to ensure full robustness of the Local Plan Policy Framework:

- Policy E9: Caravan and Camping Sites: To ensure this policy provides a robust framework to ensure the protection of European sites, it is recommended that policy text is amended as follows (amendments in **bold**, addition underlined, removal ~~strikethrough~~):

*'~~**Whether there is a requirement**~~ **The degree of protection considered desirable in order** to avoid disturbance to sensitive sites of ecological value (including ensure no adverse effects on integrity of sensitive European designated wildlife sites occurs) or to protect the tranquillity and character of the countryside, Chichester Harbour Area of Outstanding Natural Beauty and the setting of the National Park, Pagham Harbour and the undeveloped coast; and'*

- Policy NE12: Development around the Coast: It is recommended that point 1 and 2 is amended as follows (amendments in **bold**, addition underlined, removal ~~strikethrough)~~

'*1. There are no harmful effects on or net loss of nature conservation or areas of geological importance ~~**in particular**~~ within the Chichester and Pagham Harbours and Medmerry Realignment (including no adverse effects on the associated European designated sites);*

*2. ~~**If**~~ **T**he development provides recreational opportunities that ~~**they**~~ do not adversely affect the character, environment and appearance of the coast and Chichester Harbour Area of Outstanding Natural Beauty or ~~**damage**~~ **result in adverse effects on** the integrity to European designated wildlife sites'*

Loss and Degradation of Functionally Linked Supporting Habitat for Birds

Pagham Harbour SPA/Ramsar site

14.2 The following recommended policy text changes are made to ensure full robustness of the Local Plan Policy Framework:

Policy E4 Horticultural Development was screened out of the HRA as not causing a likely significant effect since it is a development management policy that lists criteria against which a given proposal would be deemed acceptable rather than making allocations or identifying a quantum of growth. However, since Policy E4 sets out the detailed criteria for accepting development within the HDAs, additional wording was recommended to ensure protection for European sites with regards to development allocated within Policy E3 Addressing Horticultural Needs: '*Ensure that development avoids harm to protected species and existing important habitats features and facilitates the achievement of biodiversity net gain and facilitates the creation of high levels of habitat connectivity within the site and to the wider Green Infrastructure network and identified Strategic Wildlife Corridors within the parish. This includes the provision of appropriate buffers as necessary in relation to important habitats which are being retained and/or created. Successfully avoid and/or mitigate potential impacts on the Pagham SPA/Ramsar, including contributing to any strategic access management issues (including on-site mitigation where required as part of the Habitats Regulations Assessment), and potential for loss of functionally linked supporting habitat.'*

Loss and Degradation of Functionally Linked Supporting Habitat for Bats

Singleton and Cocking Tunnels SAC

14.1 The following recommended policy text changes are made to ensure full robustness of the Local Plan Policy Framework:

14.2 It is recommended that wording regarding project level HRA for the East of Chichester site is included within the Policy A8: East of Chichester such as 'A*ny development brought forward at this site will require a project level HRA to establish that adequate mitigation is in place in line with the submission of a planning application to ensure no adverse effects on the integrity of Singleton and Cocking Tunnels SAC or any other European sites.'*

Other Plans and Projects

14.3 As discussed earlier in this document, a full analysis of the impacts of the Chichester Local Plan in combination with other plans and projects was made as part of that HRA report. Some of the impact pathways already discussed in this document (particularly the recreational pressure analyses) are inherently 'in combination' since they only arise when development across the core catchments of Chichester and Langstone Harbour and Pagham Harbour are considered cumulatively.

Overall Conclusion

14.4 With the inclusion of the above recommendations, it can be concluded that the Chichester Local Plan will not have an adverse effect on integrity of European designated sites, in isolation or in combination.

Appendix A Policy & Allocation Screening

Table 17. Screening Assessment (Likely Significant Effect Test) of the Local Plan Policies and Allocations

Policy	Brief Summary	Screening Outcome
Policy S1: Spatial Development Strategy	This policy identifies the broad approach to providing sustainable development in the Plan area and how development will be dispersed across this area. There are development management criteria within the Policy to ensure the suitable spread of development.	Potential Likely Significant Effect This policy defines broadly where development will be situated including non-strategic provision of development for tourism/leisure proposals in Selsey and East Wittering and has the potential to cause a likely significant effect on European sites. This policy will be discussed further within the body of the report.
Policy S2: Settlement Hierarchy	This policy sets out the settlement hierarchy framework for the council to achieve its vision for the plan area, meet the scale of development required and ensure the enhancement of the Plan area.	No likely significant effect. This is a development management policy which sets out the hierarchy of settlements in the plan to ensure suitable development within each category. Development management policies have no linking impact pathways and this policy can be screened out.
Policy NE1: Stand-alone Renewable Energy	This policy sets out criteria by which proposals for stand-alone renewable energy must adhere too, to be supported. Including ensuring no significant adverse impact upon ecology and wildlife and the water environment.	No likely significant effect. This is a development management policy. These polices do not have linking impact pathways. In addition, this policy provides protection to ecology, wildlife and the water environment by ensuring there are no significant adverse impacts upon these elements. This policy can be screened out.
Policy NE2: Natural Landscape	This policy requires that development proposals be carefully assessed to ensure the protection, conservation and enhancement of the Plan area's natural landscape. There are development management criteria within the policy to ensure this.	No likely significant effect. This is a development management policy. These policies do not have linking impact pathways. In addition, this policy is designed to protect the natural landscape, although it does not afford European sites specific protection. This policy can be screened out.
Policy NE3: Landscape Gaps between Settlements	This policy protects the open and undeveloped land between settlements to ensure that settlements retain individual identity. There	No likely significant effect.

Policy	Brief Summary	Screening Outcome
	are development management criteria within the policy to ensure this.	This is a development management policy. These policies do not have linking impact pathways. This policy can be screened out.
Policy NE4: Strategic Wildlife Corridors	This policy protects the ecological value, function, integrity and connectivity of strategic wildlife corridors. There are development management criteria within the policy to ensure this.	No likely significant effect. This is a development management policy. These policies do not have linking impact pathways. In addition, this policy provides protection to the natural environment from degrading ecological value, function, integrity and connectivity, although it does not afford European sites specific protection. This policy can be screened out.
Policy NE5: Biodiversity and Biodiversity Net Gain	This policy ensures that the conservation, protection, enhancement and restoration of biodiversity avoiding any adverse impact on the condition and recovery of all types of nature conservation sites, habitats and species within their ecological networks. There are development management criteria within the policy to ensure this.	No likely significant effects. This is a development management policy. These polices do not have linking impact pathways. In addition, this policy provides specific protection for European sites ensuring any development with potential impact must be subject to an HRA. This policy can be screened out.
Policy NE6: Chichester's Internationally and Nationally Designated Habitats	This policy sets out that development will only be permitted where it would not lead to an adverse effect upon the integrity either alone or in-combination, directly or indirectly, on internationally, European and nationally important habitat sites. There are development management criteria within the policy to ensure this.	No likely significant effects. This is a development management policy. These policies do not have linking impact pathways. In addition, this policy provides specific protection for each European site affected by the Local Plan. This policy can be screened out.
Policy NE7: Development and Disturbance of Birds in Chichester and Langstone Harbours, Pagham Harbour, Solent and Dorset Coast Special Protection Areas and Medmerry Compensatory Habitat	This policy sets out the zone of influence (ZoI) within which a development will have an impact on the Chichester and Langstone Harbours, Pagham Harbour, and/or Solent and Dorset Coast SPAs and the Medmerry compensatory habitat and defines the mitigation required for those developments within the ZoI, as well as describing some developments may require further assessment under the Habitats Regulations depending on location, type and size of development etc.	No likely significant effects. This is a development management policy. These policies do not have linking impact pathways. In addition, this policy provides specific protection for the Chichester and Langstone Harbours, Pagham Harbour and Solent and Dorset Coast SPAs and the Medmerry compensatory habitats and provides some description of mitigation required under various SPDs. This policy can be screened out.
Policy N8: Trees, Hedgerows and Woodlands	This policy sets out criteria which development must adhere too, to be supported with regards to the protection of trees, hedgerows and woodlands whether specifically protected or not.	No likely significant effects. This is a development management policy. These policies do not have linking impact pathways. In addition, this policy provides protection to

Policy	Brief Summary	Screening Outcome
		the natural environment and linear landscape features which could be utilised by species for which European sites are designated e.g., bats. However, the policy does not give specific protection to European sites themselves. This policy can be screened out.
Policy N9: Canals	This policy ensures the protection and enhancement of the Chichester Ship Canal, the Wey and Arun Canal and the Portsmouth and Arundel Canal. Developments must meet environmental, ecological, historical and transport considerations.	No likely significant effects. This is a development management policy. These policies do not have linking impact pathways. In addition, this policy ensures protection of environmental and ecological features along the canals within the Plan area which could be utilised by species for which European sites are designated e.g., bats. However, the policy does not give specific protection to European sites themselves. This policy can be screened out.
Policy NE10: Development in the Countryside	This policy sets out that only sustainable development will be supported within the countryside. There are development management criteria within the policy to ensure this.	No likely significant effects. This is a development management policy. These policies do not have linking impact pathways. This policy can be screened out.
Policy NE11: The Coast	This policy sets out protection for coastal habitats within the Plan area. There are development management criteria within the policy to ensure this.	No likely significant effects. This is a development management policy. These policies do not have linking impact pathways. In addition, this policy ensures the protection of coastal habitats for which some European sites are designated and ensures the protection, restoration, enhancement and creation of these, compensatory habitats and new coastal and wetland habitats. However, the policy does not give specific protection to European sites themselves. This policy can be screened out.
Policy NE12: Development around the Coast	This policy sets out the conditions by which development will be accepted around the coast. There are development management criteria within the policy to ensure this.	No likely significant effects. This is a development management policy. These policies do not have linking impact pathways. In addition, the policy also provides specific protections to Chichester and Pagham Harbours and no adverse effects on their associated European designated sites. This policy can be screened out.

Policy	Brief Summary	Screening Outcome
Policy NE13: Chichester Harbour Area of Outstanding Natural Beauty	This policy defines that the impact of individual projects and their cumulative effects will need to be carefully assessed on the Chichester Harbour ANOB. There are development management criteria within the policy to ensure this.	No likely significant effects. This is a development management policy. These policies do not have linking impact pathways. In addition, the policy protects the Chichester Harbour ANOB, by ensuring the natural beauty and local distinctive features of the ANOB are conserved and enhanced. The ANOB overlaps, at least in part, with European designated sites. However, the policy, does not give specific protection to European sites themselves. This policy can be screened out.
Policy NE14: Integrated Coastal Zone Management for the Manhood Peninsula	This policy sets out the general objectives that will be supported where proposals come forward within the Manhood Peninsula	No likely significant effects. This is a development management policy. These policies do not have linking impact pathways. This policy can be screened out.
Policy NE15: Flood Risk and Water Management	This policy is designed to ensure that flooding risk and water management are suitable and sustainable for all developments. There are development management criteria within the policy to ensure this.	No likely significant effects. This is a development management policy. These policies do not have linking impact pathways. This policy can be screened out.
Policy NE16: Water Management and Water Quality	This policy sets out the way in which development must comply with water supply, water efficiency, water quality, and wastewater to be supported. There are development management criteria within the policy to ensure this.	No likely significant effects. This is a development management policy. These policies do not have linking impact pathways. In addition, this policy sets out that there should be no adverse impact on the quality of water bodies and ground water, nor will development prevent future attainment of favourable conservation status. These waterbodies overlap with European designations. However, the policy does not give specific protections to European sites. This policy can be screened out.
Policy NE17: Water Neutrality	This policy sets out that all development in the Sussex North Water Resource Zone (WRZ) are required to demonstrate water neutrality through water efficient design and offsetting any additional water use of the development. There are development management criteria within the policy to ensure this.	No likely significant effects. This is a development management policy. These policies do not have linking impact pathways. In addition, this policy is a protective policy for Arun Valley SPA and Ramsar to ensure no adverse effects to qualifying features by ensuring appropriate water levels are maintained and no further abstraction is required from the River Arun. This policy can be screened out.

Policy	Brief Summary	Screening Outcome
Policy NE18: Source Protection Zones	This policy is designed to protect public water sources from contamination.	No likely significant effects. This is a development management policy. These policies do not have linking impact pathways. This policy can be screened out.
Policy NE19: Nutrient Neutrality	This policy states that development with overnight accommodation must demonstrate that the development will be nutrient neutral for the lifetime of the development.	No likely significant effects. This is a development management policy. These policies do not have linking impact pathways. In addition, this policy relates directly to Chichester and Langstone Harbour SPA/Ramsar and ensuring no adverse impacts with regards to wastewater nutrient outputs. This policy provides specific protections to the Chichester and Langstone Harbours SPA/Ramsar. This policy can be screened out.
Policy NE20: Pollution	This policy regards the prevention of pollution from developments. The development proposals must be designed to protect and improve on amenities of existing and future residents and the environment generally.	No likely significant effects. This is a development management policy. These policies do not have linking impact pathways. This policy generally protects the environment but does not provide specific protections to European sites. This policy can be screened out.
Policy NE21: Lighting	This policy sets out criteria by which developments must adhere to for support with regards to lighting schemes. There are development management criteria within the policy to ensure this.	No likely significant effect. This is a development management policy. These policies do not have linking impact pathways. In addition, it sets out criteria designed to protect Chichester Harbour AONB and strategic wildlife corridors from light pollution. These areas may overlap with European sites and areas which species for which European sites are designated may utilise. The policy also ensures no significant adverse impact on nature conservation and biodiversity, although not strictly a protection for European sites, these can be captured under the general heading of 'nature conservation'. This policy can be screened out.
Policy NE22: Air Quality	This policy details the criteria by which developments must adhere to in relation to preventing a degradation in air quality. There are development management criteria within the policy to ensure this.	No likely significant effect. This is a development management policy. These policies do not have a linking impact pathway. This policy can be screened out.

Policy	Brief Summary	Screening Outcome
Policy NE23: Noise	This policy details the criteria by which developments must adhere in relation to noise pollution. There are development management criteria within the policy to ensure this.	No likely significant effect. This is a development management policy. These policies do not have a linking impact pathway. The policy also requires a noise assessment must be completed if the development has potential significant impact on the environment including wildlife habitats. Although the policy does not specifically protect European sites, it does protect habitats for which European sites are designated. This policy can be screened out.
Policy NE24: Contaminated Land	This policy details the criteria that must be adhered to with regards to contaminated land within development proposals. There are development management criteria within the policy to ensure this.	No likely significant effect. This is a development management policy. These policies do not have a linking impact pathway. This policy can be screened out.
Policy H1: Meeting Housing Needs	The policy sets out that at least 10,350 dwellings would be required to be delivered in the Plan period to 2039. The policy tabulates the broad areas where this development will be delivered.	Potential likely significant effect. Although this policy does not specifically allocate sites for development, it does allocate a quantity of development for the Plan area over the Plan period. This policy in combination with the site allocations policies where specific locations for the development are detailed, has the potential to cause a likely significant effect on European sites. This policy will be discussed further within the body of the report.
Policy H2: Strategic Locations / Allocations 2021 – 2039	The policy sets out that the following strategic site allocations are carried forward from the 2015 Local Plan: - A7 – Land at Shopwyke – 585 dwellings - A9 – Land at Westhampnett / North East Chichester – 500 dwellings - A14– Tangmere Strategic Development Location – 1,300 (additional 300 over previous allocation of 1,000) - A6– West of Chichester – 1,600 The policy also sets out the following new strategic site allocations: - A11– Land at Highgrove Farm, Bosham – 245 (an additional 245 to the 50 allocated in the Site Allocation DPD 2014 -2029 (total of 295)) - A8Land East of Chichester – 680 dwellings - A10– Land at Maudlin Farm, Westhampnett – 265 dwellings	Potential likely significant effects. This policy allocates specific sites for development and quantifies of development within those sites. There is the potential this development may have impacts on European sites. This policy will be discussed further within the body of the report.

Policy	Brief Summary	Screening Outcome
	- A4 & A5 – Southern Gateway – 180 dwellings The policy sets out the Broad Location for Development (BLD) as follows: - A13 Southbourne Broad Location for Development – 1050 dwellings The policy also sets out housing numbers for where neighbourhood plans are anticipated for be prepared: - A2 Chichester City - 270 - A12 – Nutbourne and Hambrook – 300 dwellings (Chidham and Hambrook Parish) - A15 – Loxwood – 220 dwellings	
Policy H3: Non-Strategic Parish Housing Requirements 2021 – 2039	This policy sets out where small scale housing sites would be required to meet the needs of local communities. A total of 310 dwellings are allocated for small scale housing sites in the following parishes: - Boxgrove – 50 dwellings - Fishbourne – 30 dwellings - Kirdford – 50 dwellings - North Mundham – 50 dwellings - Plaistow and Ifford – 25 dwellings - Westbourne – 30 dwellings - Wisborough Green – 75 dwellings	Potential likely significant effects. This policy allocates parishes for development and quantifies of development within those parishes. There is the potential this development may have impacts on European sites. This policy will be discussed further within the body of the report.
Policy H4: Affordable Housing	This policy sets out the requirement for affordable housing with a development. There are development management criteria within the policy to ensure appropriate levels of affordable housing or provision of financial contribution to provide affordable housing as well as tenure splits and sub-division of sites..	No likely significant effects. This is a development management policy and whether housing is affordable or not has no influence on effects on European sites. These policies do not have linking impact pathways. This policy can be screened out.
Policy H5: Housing Mix	This policy sets out that the housing mix should reflect any national requirements for specialist and affordable housing and that the mix meets the local need and contributes to the diversity of housing in the local area. There are development management criteria within the policy to ensure this.	No likely significant effects. This is a development management policy and housing mix does not influence effects on European sites (as opposed to quantum or location of development). These policies do not have linking impact pathways. This policy can be screened out.

Policy	Brief Summary	Screening Outcome
Policy H6: Custom and/or Self Build Homes	This policy sets out the requirements for custom and/or self-build homes through a list of development management criteria.	No likely significant effects, but down the line HRA required. This policy is a development management policy. These policies do not These policies do not have a linking impact pathway. Although the policy does not present a linking impact pathway, any development bought forward under this policy may have a linking impact pathway dependent on where the development is located. Therefore, this policy can be screened out with the proviso that any custom and/or self-build home planning application undergoes a HRA should there be potential likely significant effects.
Policy H7: Rural and First Homes Exception Sites	This policy sets out the requirements for rural and first home exception sites through a list of development management criteria	No likely significant effects, but down the line HRA required. This policy is a development management policy. These policies do not have a linking impact pathway. Although the policy does not present a linking impact pathway, any development bought forward under this policy may have a linking impact pathway dependent on where the development is located. Therefore, this policy can be screened out with the proviso that any rural and first homes exception sites planning applications undergoes a HRA should there be potential likely significant effects.
Policy H8: Specialist Accommodation for Older People and those with Specialised Needs	This policy sets out the requirements for specialist housing sites for older people and those with specialist needs through a list of development management criteria.	No likely significant effects, but down the line HRA required. This policy is a development management policy. These policies do not These policies do not have a linking impact pathway. Although the policy does not present a linking impact pathway, any development bought forward under this policy may have a linking impact pathway dependent on where the development is located. Therefore, this policy can be screened out with the proviso that any specialist housing sites planning applications undergoes a HRA should there be potential likely significant effects.

Policy	Brief Summary	Screening Outcome
Policy H9: Accommodation for Agricultural, Horticultural and other Rural Workers	This policy sets out the requirements for accommodation tied to agricultural, horticultural and other rural workers through a list of development management criteria.	No likely significant effects, but down the line HRA required. This policy is a development management policy. These policies do not These policies do not have a linking impact pathway. Although the policy does not present a linking impact pathway, any development bought forward under this policy may have a linking impact pathway dependent on where the development is located. Therefore, this policy can be screened out with the proviso that any agricultural tied housing sites planning applications undergoes a HRA should there be potential likely significant effects.
Policy H10: Accessible and Adaptable Homes	This policy sets out the requirements for percentages of accessible and adaptable homes within developments through a list of development management criteria.	No likely significant effects. This is a development management policy and whether housing is accessible does not affect potential impacts on European sites. These policies do not have linking impact pathways. This policy can be screened out.
Policy H11: Meeting Gypsies, Travellers and Travelling Showpeoples' Needs	This policy defines that need for permanent pitches and plots for the Plan area as follows: - 124 additional permanent residential Gypsy and Traveller pitches of which 90 are required before 2029; - 34 additional pitches will be needed for those who don't meet the definition; and, - 40 additional plots for Travelling Showpeople, of which 26 are required before 2029. The rest of the policy is development management criteria to ensure that the plots are brought forward in an appropriate way.	Potential likely significant effect. Although this policy does not specifically allocate sites for gypsy and traveller development, it does allocate a quantity of this development for the Plan area over the Plan period and specifies that this development will be present within some allocated sites policies. This policy in combination with the site allocations policies where specific locations for the development are detailed, have the potential to cause a likely significant effect on European sites. This policy will be discussed further within the body of the report.
Policy H12: Intensification Sites	This policy sets out that intensification of existing traveller sites will be authorised should it meet development management criteria within other policies relating to gypsy and traveller accommodation and not lead to overcrowding. The policy lists a number of sites: • Land at Cherry West – 1 pitch	Potential likely significant effect. Additional gypsy and traveller accommodation in existing sites has the potential to cause likely significant effect on European sites, dependent on location. This policy will be discussed further within the body of the report.

Policy	Brief Summary	Screening Outcome
	• Land at Lakeside Barn – 4 pitches • Tower View Nurseries– 2 pitches • Greenacre – 4 pitches • Sunrise Southbourne – 1 pitch • The Stables on Bracklesham Lane – 1 additional pitch • Five Paddocks Farm Bracklesham – 2 additional travelling showpeople plots pitches (rolling temporary consents owing to future flood risk)	
Policy H13: Accommodation for Gypsies, Travellers and Travelling Showpeople	This policy sets out the requirements for the acceptance of sites proposed for gypsies and travellers through a list of development management criteria.	No likely significant effects, but down the line HRA required. The policy sets out development management criteria for the acceptance of any planning applications for gypsy and traveller and travelling showpeople accommodations and does not allocate sites for development nor a quantum of development. Therefore, the policy itself does not present any linking impact pathways to European sites. Although the policy does not present a linking impact pathway, any development bought forward under this policy may have a linking impact pathway dependent on where the development is located. Therefore, this policy can be screened out with the proviso that any gypsy and traveller and travelling showpeople accommodation planning applications undergoes a HRA should there be potential likely significant effects.
Policy H14: Gypsy and Traveller, and Travelling Showpeople Site Design Policy	This policy sets out the requirements for the site design of gypsy and traveller sites/pitches through a list of development management criteria.	No likely significant effects. This policy is a development management policy and site design will not affect European sites. These policies do not have a linking impact pathway. This policy can be screened out
Policy P1: Design Principles	This policy sets out the requirements for high design quality on development sites through a list of development management criteria	No likely significant effects.

Policy	Brief Summary	Screening Outcome
		This is a development management policy and design will not affect European sites. These policies do not have linking impact pathways. This policy can be screened out.
Policy P2: Local Character and Distinctiveness	This policy sets out requirements for developments to protect, enhance and reflect the positive characteristics and distinctiveness of the local area and contribute towards local identity. This is achieved through the inclusion of a list of development management criteria.	No likely significant effects. This is a development management policy. These policies do not have linking impact pathways. This policy can be screened out.
Policy P3: Density	This policy sets out requirements for the appropriate level of development density and making the most efficient use of land. This is achieved through the inclusion of a list of development management criteria.	No likely significant effects. This is a development management policy. These policies do not have linking impact pathways. This policy can be screened out.
Policy P4: Layout and Access	This policy sets out the requirements of layout and access to spaces and buildings within the development through a list of development management criteria	No likely significant effects. This is a development management policy. These policies do not have linking impact pathways. This policy can be screened out.
Policy P5: Spaces and Landscaping	This policy sets out the requirements of open spaces and landscaping that are required to be integrated and positively contribute to the development and the surrounding area. This is achieved through a list of development management criteria	No likely significant effects. This is a development management policy. These policies do not have linking impact pathways. This policy can be screened out.
Policy P6: Amenity	This policy sets out that development will not be accepted if it results in material nuisance or unacceptable impact on the amenity of an area its users, neighbouring residents and occupiers, including those of the future development or where it is liable to be detrimental to human health. This is achieved through a list of development management criteria.	No likely significant effects. This is a development management policy. These policies do not have linking impact pathways. This policy can be screened out.
Policy P7: Alterations and Extensions	This policy sets out the criteria which ensures that any alterations and extensions approved would not cause harm to the character of the local area or result in over-intensification of use within the development.	No likely significant effects. This is a development management policy. These policies do not have linking impact pathways. This policy can be screened out.
Policy P8 Materials and Detailing	This policy sets out the Councils expectation for materials and detailing to be utilised within developments. This is achieved through a list of development management criteria.	No likely significant effects. This is a development management policy. These policies do not have linking impact pathways. This policy can be screened out.

Policy	Brief Summary	Screening Outcome
Policy P9: The Historic Environment	This policy sets out requirements for the conservation and or enhancement of the historic environment when development proposals are being considered for acceptance. This is achieved through a list of development management criteria.	No likely significant effects. This is a development management policy. These policies do not have linking impact pathways. This policy can be screened out.
Policy P10: Listed Buildings	This policy sets out requirements for acceptance of development affecting listed buildings through a list of development management criteria.	No likely significant effects. This is a development management policy. These policies do not have linking impact pathways. This policy can be screened out.
Policy P11: Conservation Areas	This policy sets out requirements for acceptance of development affecting conservation areas through a list of development management criteria.	No likely significant effects. This is a development management policy. These policies do not have linking impact pathways. This policy can be screened out.
Policy P12: Non-Designated Heritage Assets	This policy sets out requirements protection and/or enhancement of non-designated heritage assets through a list of development management criteria	No likely significant effects. This is a development management policy. These policies do not have linking impact pathways. This policy can be screened out.
Policy P13: Registered Parks and Gardens	This policy sets out the requirements for acceptance of developments which may affect parks and gardens on the national register. This is achieved through a list of development management criteria	No likely significant effects. This is a development management policy. These policies do not have linking impact pathways. This policy can be screened out.
Policy P14: Green Infrastructure	This policy sets out that developments will be required to protect and enhance existing green infrastructure and will be expected to contribute towards the provision of additional green infrastructure. This is achieved through a list of development management criteria.	No likely significant effects. This policy is a development management policy. These policies do not These policies do not have a linking impact pathway. In addition, this policy is designed to protect the general ecology of the area surround the development and may protect areas for which European sites are designed e.g linear features utilised by bats etc. However, this policy does not provide specific protection to European sites. This policy can be screened out.
Policy P15: Open Space, Sport and Recreation	This policy sets out that residential development proposals should retain, enhance, improve access and increase the quantity and quality of public open space, playing fields, sport and recreation facilities (including indoor facilities) and provide improved links to the	No likely significant effects. This policy is a development management policy. These policies do not have a linking impact pathway. This policy can be screened out

Policy	Brief Summary	Screening Outcome
	green infrastructure network and existing rights of way. This is achieved through a list of development management criteria	
Policy P16: Health and Well-being	This policy sets out that new development is expected to contribute towards strong vibrant and health communities. This is achieved through a list of development management criteria.	No likely significant effects. This policy is a development management policy. These policies do not have a linking impact pathway. This policy can be screened out
Policy P17: New and Existing Local and Community Facilities including Local Shops	This policy sets out the requirements for approval of new or improved community facilities through a list of development management criteria.	No likely significant effects. This policy is a development management policy. These policies do not have a linking impact pathway. This policy can be screened out
Policy E1: Meeting Employment Land Needs	The policy provides for an additional 108,000 to 115,00 square metres of new floorspace for office, industrial and warehouse use. This includes the following allocation sites: Brough forward from previous plan: - Land West of Chichester – 22,000 sqm - Chichester Business Park – 92 sqm New allocations: - Land South of Bognor Road – 28,000 sqm	Potential likely significant effects. This policy allocates a quantity of development for the plan period and also contains some allocated sites for this development, therefore, there is the potential for an impact on European sites. This policy will be discussed further within the body of the report.
Policy E2: Employment Development	This policy sets out the requirements for the approval of retaining and expanding existing employment development and providing new employment development. This is achieved through a list of development management criteria.	No likely significant effects, but down the line HRA required. This policy is a development management policy, which sets out development management criteria for the requirement of approval to retain and expand existing employment development and provide new employment. This policy does not allocate land for development or a quantum of development and therefore the policy itself has no linking impact pathways and can be screened out. However, it is still a requirement for any development brought forward to comply with Habitats Regulations and therefore, any development brought forward should undergo an assessment as to whether a project level Habitats Regulations Assessment is required.
Policy E3: Addressing Horticultural Needs	The policy states that approximately 204 ha of additional land will be required for horticultural and ancillary development over the plan period.	Potential likely significant effects.

Policy	Brief Summary	Screening Outcome
		This policy provides for 204 ha of land for horticulture and ancillary development. Dependent on where this development is it could have an impact on European sites. This policy will be discussed further in the body of the report.
Policy E4: Horticultural Development	This policy sets out the requirements for the approval of new horticultural and ancillary development. This is achieved through a list of development management criteria	No likely significant effects, but down the line HRA required. This policy is a development management policy. These policies do not have a linking impact pathway. This policy can be screened out. This policy does not allocate land for development or a quantum of development and therefore the policy itself has no linking impact pathways and can be screened out. It is still a requirement for any development brought forward to comply with Habitats Regulations and therefore, any development brought forward should undergo an assessment as to whether a project level Habitats Regulations Assessment is required. Although Policy E4 Horticultural Development has been screened out of the HRA as not causing likely significant effect as a development management policy, it sets out the detailed requirements for applications within the HDAs to be deemed acceptable. Therefore, to ensure protection for European sites with regards to development allocated within Policy E3 Addressing Horticultural Needs, additional wording is required within Policy E4. This is discussed within the main body of the report.
Policy E5: Retail Strategy and New Development	This policy provides for 6,600 sqm of comparison and convenience goods retail floorspace and food/beverage uses. This is achieved through a list of development management criteria	Potential likely significant effects. This policy provides for 6,600 sqm of floorspace for retail development. Dependent on where this development is it could have an impact on European sites. This policy will be discussed further in the body of the report.
Policy E6: Chichester City Centre	This policy sets out the requirements for primary shopping frontages, secondary shopping frontages and the re-use of upper level floorspace. The policy also sets out that retail development outside of	No likely significant effects.

Policy	Brief Summary	Screening Outcome
	the primary shopping area will only be granted provided the development follows all of a list of development management criteria.	This is a development management policy. These policies do not have linking impact pathways. This policy can be screened out.
Policy E7: Local Centres	This policy sets out that where and how commercial or leisure development will be permitted within local centres through a list of development management criteria	No likely significant effects. This is a development management policy. These policies do not have linking impact pathways. This policy can be screened out.
Policy E8: Built Tourist and Leisure Development	This policy sets out where and how leisure and tourist development will be permitted within the Plan area through a list of development management criteria.	No likely significant effects, but down the line HRA required. This policy is a development management policy. These policies do not have a linking impact pathway. Although the policy does not present a linking impact pathway, any development bought forward under this policy may have a linking impact pathway dependent on where the development is located. The policy also provides specific protections for European designated sites, by being expected to contribute to relevant access management strategies to mitigate recreational disturbance to SPAs in accordance with Policy NE6 and NE7. Therefore, this policy can be screened out with the proviso that any tourist or leisure development planning applications undergoes a HRA should there be potential likely significant effects, which will ensure that the appropriate mitigation is in place, should there be an impact.
Policy E9: Caravan and Camping Sites	This policy sets out where and how caravan and camping development would be permitted through a list of development management policies	No likely significant effects, but down the line HRA required. This policy is a development management policy. These policies do not have a linking impact pathway. Although the policy does not present a linking impact pathway, any development bought forward under this policy may have a linking impact pathway dependent on where the development is located. The policy also provides specific protections for European designated sites, restricting they type and occupation length should there be a requirement to avoid disturbance to sensitive ecological sites and by

Policy	Brief Summary	Screening Outcome
		being expected to contribute to relevant access management strategies to mitigate recreational disturbance to SPAs, Therefore, this policy can be screened out with the proviso that any caravan and camping development planning applications undergoes a HRA should there be potential likely significant effects, which will ensure that the appropriate mitigation is in place, should there be an impact.
Policy E10: Equestrian Development	This policy sets out where and how equestrian development will be permitted with a list of development management criteria.	No likely significant effects, but down the line HRA required. This policy is a development management policy. These policies do not have a linking impact pathway. Although the policy does not present a linking impact pathway, any development bought forward under this policy may have a linking impact pathway dependent on where the development is located. The policy also provides specific protections for European designated sites with the need for developments to comply with Policy NE5 which requires development that have the potential to cause a likely significant effect on European sites to undertake a HRA. Therefore, this policy can be screened out with the proviso that any equestrian development planning applications undergoes a HRA should there be potential likely significant effects, which will ensure that the appropriate mitigation is in place, should there be an impact.
Policy T1: Transport Infrastructure	This policy sets out that integrated transport measures will be developed to mitigate the impact of planned development on the highways network, improve highway safety and air quality, promote more sustainable travel patterns and encourage increased use of sustainable modes of travel, such as public transport, cycling and walking. This will be achieved through a list of development management criteria.	No likely significant effect, but down the line HRA required. This policy is a development management policy. These policies do not have a linking impact pathway. Although the policy does not present a linking impact pathway, any infrastructure development brought forward under this policy may have a linking impact pathway dependent on where the development is located. E.g. any new roads within 200m of a sensitive European site may have an impact on air quality.

Policy	Brief Summary	Screening Outcome
		Therefore, this policy can be screened out with the proviso that any transport development planning applications undergoes a HRA should there be potential likely significant effects, which will ensure that the appropriate mitigation is in place, should there be an impact.
Policy T2: Transport and Development	This policy sets out criteria for gaining planning permission of developments in relation to transport infrastructure to be provided by the development.	No likely significant effect, but down the line HRA required. This policy is a development management policy. These policies do not have a linking impact pathway. Although the policy does not present a linking impact pathway, any development bought forward under this policy may have a linking impact pathway dependent on where the development is located. E.g. any new roads within 200m of a sensitive European site may have an impact on air quality. This policy states that where transport impacts of a development are likely to have a significant effect on local air quality of internationally important sites the proposal must be accompanied by an Air Quality Assessment and if adverse impacts are identified appropriate measures to prevent or mitigate impact on designated sites must be identified. Therefore, this policy can be screened out with the proviso that any transport development planning applications undergoes a HRA should there be potential likely significant effects, which will ensure that the appropriate mitigation is in place, should there be an impact.
Policy T3: Active Travel – Walking and Cycling Provision	This policy sets out how developments should promote and prioritise sustainable travel infrastructure.	No likely significant effects. This policy is a development management policy. These policies do not have a linking impact pathway. This policy can be screened out.
Policy T4: Parking Provision	This policy sets out that proposals should provide adequate parking provision as well as safe an secure cycle parking	No likely significant effects. This policy is a development management policy. These policies do not have a linking impact pathway. This policy can be screened out

Policy	Brief Summary	Screening Outcome
Policy I1: Infrastructure Provision	This policy sets out the of infrastructure to be provided to ensure that individual and cumulative development is supported by the timely provision of adequate infrastructure, facilities and services.	No likely significant effects. This policy is a development management policy. These policies do not have a linking impact pathway. This policy can be screened out
Policy A1: Chichester City Development Principles	This policy sets out that new development, infrastructure and facilities will be planned for Chichester City that enhance the city's role as a sub-regional centre and visitor destination, contribute to meeting local needs, and conserve and enhance the city's historic character and heritage. This is achieved with a list of development management criteria.	No likely significant effects, but down the line HRA required. This policy is a development management policy. This policy does not allocate land for development or a quantum of development and therefore the policy itself has no linking impact pathways and can be screened out. However, it is still a requirement for any development brought forward to comply with Habitats Regulations and therefore, any development brought forward should undergo an assessment as to whether a project level Habitats Regulations Assessment is required.
Policy A2: Chichester City – Strategic Housing Location	This policy sets out that land will be allocated within the revised Chichester Neighbourhood Plan for a minimum of 270 dwellings, supporting facilities and infrastructure.	Potential likely significant effects. This policy allocates a quantum of dwellings for development. There is potential for the increase in dwellings to have an impact on European sites within and outside of the Plan area where Zones of Impact of the European sites bisect the development, journey to work routes or where wastewater from the development is discharged. This site allocation will be discussed further within the body of the report.
Policy A3: Southern Gateway Development Principles	This policy relates to development within the southern gateway regeneration area and complying to a list of development management criteria	No likely significant effects, but down the line HRA required. This policy is a development management policy. This policy does not allocate land for development or a quantum of development and therefore the policy itself has no linking impact pathways and can be screened out. However, it is still a requirement for any development brought forward to comply with Habitats Regulations and therefore, any development brought forward should undergo an assessment as to whether a project level Habitats Regulations Assessment is required.

Policy	Brief Summary	Screening Outcome
Policy A4: Southern Gateway – Bus Station, Bus Depot and Basing Road Car Park	This policy allocates a 1.3 ha sites for a residential led scheme of 110 dwellings, and retail such as café/restaurants and potential inclusion of student and older persons accommodation. The rest of the policy lists development management criteria.	Potential likely significant effects. This policy allocates a specific site and quantum of dwellings for development. There is potential for the increase in dwellings to have an impact on European sites within and outside of the Plan area where Zones of Impact of the European sites bisect the development, journey to work routes or where wastewater from the development is discharged. This site allocation will be discussed further within the body of the report. The policy does also provide specific protection to the Chichester Harbour SAC/SPA/Ramsar site by stating development must avoid and where relevant mitigate potential impacts.
Policy A5: Southern Gateway – Police Field, Kingsham Road	This policy allocates a 1.45 ha site for residential use of 70 dwellings. The rest of the policy lists development management criteria.	Potential likely significant effects. This policy allocates a specific site and quantum of dwellings for development. There is potential for the increase in dwellings to have an impact on European sites within and outside of the Plan area where Zones of Impact of the European sites bisect the development, journey to work routes or where wastewater from the development is discharged. This site allocation will be discussed further within the body of the report. The policy does also provide specific protection to the Chichester and Langstone Harbours SAC/SPA/Ramsar site by stating development must avoid and where relevant mitigate potential impacts.
Policy A6: Land West of Chichester	Development comprises: - 1,600 dwellings - 6 ha of employment land - Neighbourhood centre, community hub, local shops, community centre, small offices and a primary school - Open space and green infrastructure including country parks, playing pitches, sports pavilion and allotments.	Potential likely significant effects. This policy allocates a specific site and quantum of dwellings for development. There is potential for the increase in dwellings to have an impact on European sites within and outside of the Plan area where Zones of Impact of the European sites bisect the development, journey

Policy	Brief Summary	Screening Outcome
	The development should - Deliver measurable net gain to biodiversity in accordance with Policy NE5 - Provide appropriate landscaping buffers and contribute to green infrastructure - Achieve nutrient neutrality and mitigate potential impacts on Chichester Harbour SAC/SPA/Ramsar - Protect and enhance existing biodiversity and important ecological corridors between Chichester Harbour and South Downs National Park. - Demonstrate capacity of sewer network to accommodate conveyance and treatment of wastewater to strict environmental standards from the proposed development. Occupation of development will be phased to align with delivery of wastewater infrastructure and neighbourhood centre and country park.	to work routes or where wastewater from the development is discharged. This site allocation will be discussed further within the body of the report. The policy does also provide specific protection development management criteria for European sites.
Policy A7: Land at Shopwyke (Oving Parish)	Development comprises: - Approximately 585 dwellings - At least 4 ha of employment land - Neighbourhood centre, community hub, local shops and community centre - Open space and green infrastructure with enhancement of the existing lakes to deliver biodiversity net gains and safer access. The development should: - Provide green infrastructure in conjunction with other strategic sites - Demonstrate that the development would not have adverse impact on nature conservation interests of identified sites and habitats - Have special regard for the need to mitigate potential impacts on Chichester Harbour and contribute to any strategic access management. - Occupation of the development should be phased to align with delivery of adequate wastewater services	Potential likely significant effects. This policy allocates a specific site and quantum of dwellings for development. There is potential for the increase in dwellings to have an impact on European sites within and outside of the Plan area where Zones of Impact of the European sites bisect the development, journey to work routes or where wastewater from the development is discharged. This site allocation will be discussed further within the body of the report. The policy does also provide specific protection development management criteria for European sites.
Policy A8: Land East of Chichester	Development comprises: - 680 dwellings - Specialist accommodation for older persons	Potential likely significant effects. This policy allocates a specific site and quantum of dwellings for development. There is potential for the increase in dwellings to have an

Policy	Brief Summary	Screening Outcome
	- Neighbourhood centre incorporating local shops, community centre, flexible employment space, small scale leisure uses - One form primary school with provision for early years/childcare and special educational needs and disability - 10 plots for self/custom build housing - 9 gypsy and traveller pitches The development should: - Provide for appropriate hard and soft landscaping, including street trees, significant buffer planting to the strategic wildlife corridor on the eastern boundary of the site, and protect existing landscape features which are worthy of retention, in order to ensure the development is well integrated with its surroundings and successfully mitigates the impacts on the wider landscape character; The buffer to the corridor should ensure darkness and minimise disturbance in the wildlife corridor and ensure habitats and microclimates of the corridor continue to support a wide range of species and maintain connectivity; - Ensure that green infrastructure provision is well related to the overall layout and character of the development and how it relates to its surroundings. This will include creating linkages throughout the site to the wider countryside, Tangmere and development at Shopwyke Lakes; - Ensure that the design and layout avoids harm to protected species and existing important habitats features within, and in the vicinity of, the site, and facilitates the achievement of biodiversity net gain and facilitates the creation of high levels of habitat connectivity within the site and to the adjacent strategic wildlife corridor and wider Green Infrastructure network. Appropriate buffers, of sufficient width and landscaping design to reduce light levels down to 0.2 lux in the horizontal plane and 0.4 lux in the vertical plane, will be required to the strategic wildlife corridor, that includes the lake/water body, to reinforce its functionality and to include mitigation measures to minimise noise to reduce disturbance from the development. Buffers may contain appropriate unlit uses such as recreational use and SUDS provision - Avoid and where relevant mitigate potential impacts on the Chichester Harbour SAC/SPA/Ramsar, including contributing to any strategic access management issues (including on-site	impact on European sites within and outside of the Plan area where Zones of Impact of the European sites bisect the development, journey to work routes or where wastewater from the development is discharged. This site allocation will be discussed further within the body of the report.

Policy	Brief Summary	Screening Outcome
	mitigation where required as part of the Habitats Regulations Assessment), and potential for loss of functionally linked supporting habitat;	
Policy A9: Land at Westhampnett / North East Chichester	Development comprises: - 500 dwellings - Community facilities - Open space and green infrastructure, including sensitively planned linear greenspace with public access along the Lavant Valley The development should: - Make provision for green links to the South Downs National Park and Chichester City - Be occupied in a phased manor to align with the delivery of adequate wastewater infrastructure.	Potential likely significant effects. This policy allocates a specific site and quantum of dwellings for development. There is potential for the increase in dwellings to have an impact on European sites within and outside of the Plan area where Zones of Impact of the European sites bisect the development, journey to work routes or where wastewater from the development is discharged. This site allocation will be discussed further within the body of the report.
Policy A10: Land at Maudlin Farm	This policy allocates Maudlin Farm for 265 dwellings, 3 serviced gypsy and traveller pitches and 4 serviced self/custom build plots. The development should: - Retain mature trees and hedgerows where possible - Compensate unavoidable habitat loss through new native planting elsewhere on site - Avoid harm to protected species and existing habitats within an in the vicinity of the site - Provide the required level of biodiversity net gain - Facilitate creation of high levels of habitat connectivity within site and to wider green infrastructure network - Avoid and where relevant mitigate potential impacts on Chichester and Langstone Harbours SAC/SPA/Ramsar and Singleton and Cocking Tunnels SAC	Potential likely significant effects. This policy allocates a specific site and quantum of dwellings for development. There is potential for the increase in dwellings to have an impact on European sites within and outside of the Plan area where Zones of Impact of the European sites bisect the development, journey to work routes or where wastewater from the development is discharged. This site allocation will be discussed further within the body of the report. The policy does also provide specific protection development management criteria for European sites.
Policy A11: Highgrove Farm, Bosham	This policy allocates a site of 13 ha at Highgrove Farm for residential led development. a minimum of 245 dwellings, specialist accommodation for older persons, community buildings, public open space and play area, 4 services plots for self/custom build and 3 gypsy and traveller pitches. The development should:	Potential likely significant effects. This policy allocates a specific site and quantum of dwellings for development. There is potential for the increase in dwellings to have an impact on European sites within and outside of the Plan area where Zones of Impact of the European sites bisect the development, journey

Policy	Brief Summary	Screening Outcome
	- Provide multifunctional green infrastructure - Avoid harm to protected species and existing habitats within an in the vicinity of the site - Provide the required level of biodiversity net gain - Provide habitat connectivity within site and to wider green infrastructure network - Avoid and where relevant mitigate potential impacts on Chichester and Langstone Harbours SAC/SPA/Ramsar	to work routes or where wastewater from the development is discharged. This site allocation will be discussed further within the body of the report. The policy does also provide specific protection development management criteria for European sites.
Policy A12: Chidham and Hambrook	This policy sets out that land will be allocated within the revised Chidham and Hambrook Neighbourhood Plan for 300 dwellings and supporting facilities and infrastructure. The development should: - Avoid harm to protected species and existing habitats within an in the vicinity of the site - Provide the required level of biodiversity net gain - Provide habitat connectivity within site and to wider green infrastructure network and strategic wildlife corridors - Provide appropriate buffers in relation to important habitats being retained or created - Avoid and where relevant mitigate potential impacts on Chichester and Langstone Harbours SAC/SPA/Ramsar	Potential likely significant effects. This policy allocates a specific site and quantum of dwellings for development. There is potential for the increase in dwellings to have an impact on European sites within and outside of the Plan area where Zones of Impact of the European sites bisect the development, journey to work routes or where wastewater from the development is discharged. This site allocation will be discussed further within the body of the report. The policy does also provide specific protection development management criteria for European sites.
Policy A13: Southbourne Broad Location for Development	This policy sets out that land will be allocated in the Broad Location for Development at Southbourne for 1,050 dwellings including 16 serviced self/custom build plots, accommodation for older people, local employment opportunities, supporting community uses and facilities. Also provision for 12 gypsy and traveller pitches, 12 pitches for travelling showpeople. The development should: - Provide multifunctional green infrastructure - Demonstrate that development would not have an adverse impact on the nature conservation interest of identified sites and habitats including the Strategic Wildlife Corridors	Potential likely significant effects. This policy allocates a specific site and quantum of dwellings for development. There is potential for the increase in dwellings to have an impact on European sites within and outside of the Plan area where Zones of Impact of the European sites bisect the development, journey to work routes or where wastewater from the development is discharged. This site allocation will be discussed further within the body of the report.

Policy	Brief Summary	Screening Outcome
	- Avoid and where relevant mitigate potential impacts on Chichester and Langstone Harbours SAC/SPA/Ramsar - Ensure sufficient capacity within the relevant wastewater treatment infrastructure before the delivery of development	The policy does also provide specific protective development management criteria for European sites.
Policy A14: Land West of Tangmere	This policy allocates a site of 73 ha for a residential led development of at least 1,300 dwellings, community facilities and open space. As well as a two form entry primary school, allotments and community orchard. The development should: - Make provision for green links and integrated green infrastructure - Phase delivery to align with adequate waste conveyance and treatment to meet strict environmental standards.	Potential likely significant effects. This policy allocates a specific site and quantum of dwellings for development. There is potential for the increase in dwellings to have an impact on European sites within and outside of the Plan area where Zones of Impact of the European sites bisect the development, journey to work routes or where wastewater from the development is discharged. This site allocation will be discussed further within the body of the report. The policy does not provide specific protective development management criteria for European sites.
Policy A15: Loxwood	This policy sets out that land will be allocated for development within the revised Loxwood Neighbourhood Plan for at least 220 dwellings, supporting facilities and infrastructure. The development should: - Avoid harm to protected species and existing habitats within an in the vicinity of the site - Provide the required level of biodiversity net gain - Provide habitat connectivity within site and to wider green infrastructure network and strategic wildlife corridors - Provide appropriate buffers in relation to important habitats being retained or created	Potential likely significant effects. This policy sets out a broad location for development and provides a quantum of dwellings for development within the Loxwood Parish. There is potential for the increase in dwellings to have an impact on European sites within and outside of the Plan area where Zones of Impact of the European sites bisect the development, journey to work routes or where wastewater from the development is discharged. This site allocation will be discussed further within the body of the report. The policy does not provide specific protective development management criteria for European sites. However, the supporting text does mention that all impacts to bats from the Mens SAC must be considered as the habitats are critical for sustaining populations of bats within the SAC.
Policy A16: Goodwood Motor Circuit and Airfield	This policy sets out where and how proposals for outdoor sport, recreation and leisure activities in connection with or ancillary to the	No likely significant effects, but down the line HRA required.

Policy	Brief Summary	Screening Outcome
	existing uses at Goodwood Motor Circuit and Airfield would be accepted, through a list of development management criteria.	This policy is a development management policy. These policies do not have a linking impact pathway. Although the policy does not present a linking impact pathway, any development bought forward under this policy may have a linking impact pathway dependent on the nature of the development, given that it is in close proximity to European sites. Therefore, this policy can be screened out with the proviso that any development planning application undergoes a HRA should there be potential likely significant effects, which will ensure that the appropriate mitigation is in place, should there be an impact.
Policy A17: Development within the Vicinity of Goodwood Motor Circuit and Airfield	This policy sets out how planning will be granted with regards to noise impacts in the vicinity of Goodwood Motor Circuit and Airfield by requiring a noise impact assessment and through a list of development management criteria.	No likely significant effects, but down the line HRA required. This policy is a development management policy ensuring that there are noise impact assessments present at submission for noise sensitive developments within the vicinity of Goodwood. This policy does not allocate land for development or a quantum of development and therefore the policy itself has no linking impact pathways and can be screened out. However, it is still a requirement for any development brought forward to comply with Habitats Regulations and therefore, any development brought forward should undergo an assessment as to whether a project level Habitats Regulations Assessment is required.
Policy A18: Thorney Island	This policy sets out that proposals for new development on the island which help to enhance or sustain its operational military capability will be supported. However, it should seek to enhance the overall character of the island and avoid adverse impacts on Chichester Harbour AONB/SAC/SPA/Ramsar	No likely significant effects, but down the line HRA required. This policy is a development management policy. These policies do not have a linking impact pathway. Although the policy does not present a linking impact pathway, any development bought forward under this policy may have a linking impact pathway dependent on the nature of the development, given that it is in close proximity to European sites. The policy also states that it must avoid adverse impacts on Chichester Harbour SAC/SPA/Ramsar.

Policy	Brief Summary	Screening Outcome
		Therefore, this policy can be screened out with the proviso that any development planning application undergoes a HRA should there be potential likely significant effects, which will ensure that the appropriate mitigation is in place, should there be an impact.
Policy A19: Land at Chichester Business Park, Tangmere	This policy allocates land of 2.7 ha for employment development.	Potential likely significant effects. This policy allocates a specific site for employment land for development. There is potential for the increase in employment land in use to have an impact on European sites within and outside of the Plan area where Zones of Impact of the European sites bisect the development, journey to work routes or where wastewater from the development is discharged. This site allocation will be discussed further within the body of the report.
Policy A20: Land South of Bognor Road	This policy allocates 19,5 ha of land for employment led development. with at least 28,000 sqm of employment floor space and 5 plots for travelling showpeople and 1 ha of ancillary storage requirements. The development should: - Protect and retain existing landscape features including hedgerows and enhance with supplementary planting - Avoid harm to protected species and existing habitats within an in the vicinity of the site - Provide the required level of biodiversity net gain - Provide habitat connectivity within site and to wider green infrastructure network and strategic wildlife corridors - Provide appropriate buffers in relation to important habitats being retained or created	Potential likely significant effects. This policy allocates a specific site and quantum of employment land for development. There is potential for the increase in employment land in use to have an impact on European sites within and outside of the Plan area where Zones of Impact of the European sites bisect the development, journey to work routes or where wastewater from the development is discharged. This site allocation will be discussed further within the body of the report.
Policy A21: Land East of Rolls Royce	This policy regards safeguarding employment land. 10 ha of land has been safeguarded for Rolls Royce related development on the eastern side of the existing Rolls Royce Cars manufacturing plant. The development should:	Potential likely significant effects. This policy allocates a specific site and quantum of employment land for development. There is potential for the increase in employment land in use to have an impact on European sites within and outside of the Plan area where Zones of Impact of the European sites bisect the

Policy	Brief Summary	Screening Outcome
	- Ensure increase traffic generation is minimised and mitigated by the use of sustainable transport measures - Avoid and then mitigate and adverse impacts on the landscape and the setting of the South Downs National Park	development, journey to work routes or where wastewater from the development is discharged. This site allocation will be discussed further within the body of the report.

Appendix B Air Quality Results

B.1 Total Nitrogen Deposition Results

Table 18. Total nitrogen deposition rates for the Local Plan in isolation and in combination with other plans and projects

Note: Numbers in **Bold** are above the relevant critical loads/levels.

Receptor	Designated Site	Critical Load	Total Concentration in Isolation			Total Concentration in Combination		
			Base Year	Future Year DM	Future Year DS	Base Year	Future Year DM	Future year DS
CLSM1_1	Solent Maritime (SAC) and Chichester and Langstone Harbours (SPA)	20	**20.92**	17.63	18.66	**20.92**	18.57	18.66
CLSM1_2		20	**20.46**	17.24	18.21	**20.46**	18.13	18.21
CLSM1_3		20	19.86	16.72	17.63	19.86	17.55	17.63
CLSM1_4		20	19.05	16.01	16.83	19.05	16.76	16.83
CLSM1_5		20	18.39	15.45	16.20	18.39	16.14	16.20
CLSM1_6		20	17.85	14.99	15.68	17.85	15.63	15.68
CLSM1_7		20	17.39	14.61	15.25	17.39	15.20	15.25
CLSM1_8		20	15.89	13.35	13.82	15.89	13.79	13.82
CLSM1_9		20	15.03	12.64	13.03	15.03	13.00	13.03
CLSM1_10		20	14.47	12.19	12.51	14.47	12.49	12.51
CLSM1_11		20	14.08	11.87	12.14	14.08	12.13	12.14
CLSM1_12		20	13.78	11.63	11.87	13.78	11.86	11.87
CLSM1_13		20	13.55	11.44	11.66	13.55	11.65	11.66
CLSM1_14		20	13.37	11.29	11.49	13.37	11.48	11.49
KGVE1	Kingley Vale (SAC)	10	**30.53**	**25.95**	**26.14**	**30.53**	**26.12**	**26.14**
KGVE2		10	**30.53**	**25.95**	**26.14**	**30.53**	**26.11**	**26.14**
KGVE3		10	**30.52**	**25.95**	**26.13**	**30.52**	**26.10**	**26.13**
KGVE4		10	**30.52**	**25.94**	**26.11**	**30.52**	**26.09**	**26.11**
KGVE5		10	**30.51**	**25.93**	**26.11**	**30.51**	**26.08**	**26.11**
KGVE6		10	**30.50**	**25.93**	**26.09**	**30.50**	**26.07**	**26.09**
KGVE7		10	**30.49**	**25.92**	**26.08**	**30.49**	**26.06**	**26.08**
KGVE8		10	**30.46**	**25.89**	**26.04**	**30.46**	**26.03**	**26.04**

Receptor	Designated Site	Critical Load	Total Concentration in Isolation			Total Concentration in Combination		
			Base Year	Future Year DM	Future Year DS	Base Year	Future Year DM	Future year DS
KGVE9		10	**30.43**	**25.88**	**26.01**	**30.43**	**26.00**	**26.01**
KGVE10		10	**30.41**	**25.86**	**25.98**	**30.41**	**25.97**	**25.98**
KGVE11		10	**30.40**	**25.85**	**25.96**	**30.40**	**25.95**	**25.96**
KGVE12		10	**30.39**	**25.84**	**25.94**	**30.39**	**25.93**	**25.94**
KGVE13		10	**30.38**	**25.83**	**25.93**	**30.38**	**25.92**	**25.93**
KGVE14		10	**30.37**	**25.83**	**25.92**	**30.37**	**25.91**	**25.92**
PGHR1_1	Pagham Habour (SPA)	20	16.77	14.59	18.05	16.77	17.16	18.05
PGHR1_2		20	15.90	13.78	16.86	15.90	16.07	16.86
PGHR1_3		20	15.05	13.01	15.69	15.05	15.00	15.69
PGHR1_4		20	14.07	12.12	14.38	14.07	13.80	14.38
PGHR1_5		20	13.37	11.49	13.45	13.37	12.94	13.45
PGHR1_6		20	12.82	11.00	12.71	12.82	12.27	12.71
PGHR1_7		20	12.38	10.61	12.14	12.38	11.75	12.14
PGHR1_8		20	11.03	9.43	10.40	11.03	10.15	10.40
PGHR1_9		20	10.37	8.85	9.54	10.37	9.37	9.54
PGHR1_10		20	10.00	8.53	9.06	10.00	8.92	9.06
PGHR1_11		20	9.77	8.33	8.75	9.77	8.63	8.75
PGHR1_12		20	9.60	8.18	8.53	9.60	8.44	8.53
PGHR1_13		20	9.48	8.07	8.38	9.48	8.30	8.38
PGHR1_14		20	9.39	8.00	8.27	9.39	8.20	8.27
DNBG1	Duncton to Bignor Escarpment (SAC)	10	**32.23**	**27.29**	**30.17**	**32.23**	**29.83**	**30.17**
DNBG2		10	**32.01**	**27.11**	**29.80**	**32.01**	**29.48**	**29.80**
DNBG3		10	**31.74**	**26.90**	**29.36**	**31.74**	**29.07**	**29.36**
DNBG4		10	**31.41**	**26.63**	**28.78**	**31.41**	**28.53**	**28.78**
DNBG5		10	**31.15**	**26.42**	**28.34**	**31.15**	**28.12**	**28.34**
DNBG6		10	**30.95**	**26.25**	**27.99**	**30.95**	**27.78**	**27.99**
DNBG7		10	**30.77**	**26.12**	**27.70**	**30.77**	**27.51**	**27.70**
DNBG8		10	**30.23**	**25.68**	**26.77**	**30.23**	**26.64**	**26.77**
DNBG9		10	**29.94**	**25.45**	**26.27**	**29.94**	**26.17**	**26.27**
DNBG10		10	**29.76**	**25.31**	**25.97**	**29.76**	**25.89**	**25.97**

Receptor	Designated Site	Critical Load	Total Concentration in Isolation			Total Concentration in Combination		
			Base Year	Future Year DM	Future Year DS	Base Year	Future Year DM	Future year DS
DNBG11		10	**29.65**	**25.22**	**25.77**	**29.65**	**25.70**	**25.77**
DNBG12		10	**29.58**	**25.16**	**25.63**	**29.58**	**25.58**	**25.63**
DNBG13		10	**29.52**	**25.11**	**25.53**	**29.52**	**25.48**	**25.53**
DNBG14		10	**29.48**	**25.08**	**25.46**	**29.48**	**25.41**	**25.46**
SACT1	Singleton and Cocking Tunnels (SAC)	10	**30.99**	**26.34**	**26.65**	**30.99**	**26.60**	**26.65**
SACT2		10	**30.99**	**26.34**	**26.64**	**30.99**	**26.59**	**26.64**
SACT3		10	**30.98**	**26.33**	**26.63**	**30.98**	**26.58**	**26.63**
SACT4		10	**30.96**	**26.32**	**26.61**	**30.96**	**26.56**	**26.61**
SACT5		10	**30.95**	**26.31**	**26.60**	**30.95**	**26.55**	**26.60**
SACT6		10	**30.94**	**26.30**	**26.58**	**30.94**	**26.53**	**26.58**
SACT7		10	**30.93**	**26.29**	**26.57**	**30.93**	**26.52**	**26.57**
CLSM2_1	Solent Maritime (SAC) and Chichester and Langstone Harbours (SPA)	20	11.83	10.07	10.20	11.83	10.17	10.20
CLSM2_2		20	11.83	10.07	10.19	11.83	10.17	10.19
CLSM2_3		20	11.82	10.06	10.19	11.82	10.17	10.19
CLSM2_4		20	11.82	10.06	10.18	11.82	10.16	10.18
CLSM2_5		20	11.81	10.05	10.17	11.81	10.15	10.17
CLSM2_6		20	11.81	10.05	10.17	11.81	10.15	10.17
CLSM2_7		20	11.80	10.05	10.16	11.80	10.14	10.16
CLSM2_8		20	11.78	10.03	10.13	11.78	10.12	10.13
CLSM2_9		20	11.77	10.01	10.11	11.77	10.10	10.11
CLSM2_10		20	11.76	10.00	10.09	11.76	10.08	10.09
CLSM2_11		20	11.74	9.99	10.08	11.74	10.07	10.08
CLSM2_12		20	11.73	9.99	10.06	11.73	10.06	10.06
CLSM2_13		20	11.73	9.98	10.05	11.73	10.05	10.05
CLSM2_14		20	11.72	9.97	10.04	11.72	10.04	10.04
SOME1	Solent Maritime (SAC) and Chichester and Langstone Harbours (SPA)	20	14.59	12.48	14.00	14.59	13.52	14.00
SOME2		20	14.32	12.24	13.62	14.32	13.19	13.62
SOME3		20	14.00	11.96	13.16	14.00	12.79	13.16
SOME4		20	13.61	11.61	12.61	13.61	12.30	12.61
SOME5		20	13.32	11.36	12.21	13.32	11.94	12.21

Receptor	Designated Site	Critical Load	Total Concentration in Isolation			Total Concentration in Combination		
			Base Year	Future Year DM	Future Year DS	Base Year	Future Year DM	Future year DS
SOME6		20	13.11	11.17	11.90	13.11	11.68	11.90
SOME7		20	12.94	11.03	11.67	12.94	11.47	11.67
SOME8		20	12.47	10.62	11.02	12.47	10.90	11.02
SOME9		20	12.26	10.44	10.72	12.26	10.64	10.72
SOME10		20	12.14	10.33	10.56	12.14	10.49	10.56
SOME11		20	12.06	10.27	10.45	12.06	10.40	10.45
SOME12		20	12.01	10.22	10.38	12.01	10.34	10.38
SOME13		20	11.97	10.19	10.32	11.97	10.29	10.32
SOME14		20	11.94	10.16	10.28	11.94	10.25	10.28
CLSM3_1	Solent Maritime (SAC) and Chichester and Langstone Harbours (SPA)	20	14.18	12.02	13.24	14.18	12.92	13.24
CLSM3_2		20	14.01	11.87	13.01	14.01	12.72	13.01
CLSM3_3		20	13.78	11.67	12.71	13.78	12.46	12.71
CLSM3_4		20	13.47	11.42	12.32	13.47	12.12	12.32
CLSM3_5		20	13.24	11.22	12.02	13.24	11.86	12.02
CLSM3_6		20	13.06	11.07	11.78	13.06	11.65	11.78
CLSM3_7		20	12.91	10.94	11.58	12.91	11.48	11.58
CLSM3_8		20	12.44	10.55	10.99	12.44	10.94	10.99
CLSM3_9		20	12.20	10.35	10.68	12.20	10.66	10.68
CLSM3_10		20	12.06	10.23	10.50	12.06	10.49	10.50
CLSM3_11		20	11.96	10.15	10.38	11.96	10.37	10.38
CLSM3_12		20	11.89	10.09	10.29	11.89	10.29	10.29
CLSM3_13		20	11.83	10.05	10.22	11.83	10.22	10.22
CLSM3_14		20	11.79	10.01	10.17	11.79	10.17	10.17
SLDR1	Portsmouth Harbour (under Solent & Dorset Coast in GIS) (SPA)	20	**20.65**	17.45	18.54	**20.65**	18.44	18.54
SLDR2		20	**20.27**	17.11	18.15	**20.27**	18.05	18.15
SLDR3		20	19.75	16.66	17.63	19.75	17.54	17.63
SLDR4		20	19.03	16.04	16.91	19.03	16.82	16.91
SLDR5		20	18.44	15.53	16.31	18.44	16.24	16.31
SLDR6		20	17.94	15.10	15.82	17.94	15.75	15.82
SLDR7		20	17.51	14.74	15.41	17.51	15.34	15.41

Receptor	Designated Site	Critical Load	Total Concentration in Isolation			Total Concentration in Combination		
			Base Year	Future Year DM	Future Year DS	Base Year	Future Year DM	Future year DS
SLDR8		20	16.07	13.54	14.01	16.07	13.97	14.01
SLDR9		20	15.24	12.85	13.22	15.24	13.19	13.22
SLDR10		20	14.70	12.41	12.71	14.70	12.68	12.71
BSHL1	Buster Hill (SAC)	5	**78.85**	**62.65**	**71.01**	**78.85**	**70.84**	**71.01**
BSHL2		5	**76.99**	**61.17**	**69.23**	**76.99**	**69.06**	**69.23**
BSHL3		5	**74.49**	**59.18**	**66.83**	**74.49**	**66.67**	**66.83**
BSHL4		5	**70.91**	**56.32**	**63.38**	**70.91**	**63.23**	**63.38**
BSHL5		5	**67.89**	**53.90**	**60.47**	**67.89**	**60.33**	**60.47**
BSHL6		5	**65.32**	**51.84**	**57.99**	**65.32**	**57.86**	**57.99**
BSHL7		5	**63.10**	**50.06**	**55.85**	**63.10**	**55.73**	**55.85**
BSHL8		5	**55.14**	**43.71**	**48.17**	**55.14**	**48.08**	**48.17**
BSHL9		5	**50.22**	**39.87**	**43.47**	**50.22**	**43.39**	**43.47**
BSHL10		5	**46.84**	**37.30**	**40.30**	**46.84**	**40.24**	**40.30**
BSHL11		5	**44.37**	**35.47**	**38.02**	**44.37**	**37.97**	**38.02**
BSHL12		5	**42.48**	**34.09**	**36.31**	**42.48**	**36.27**	**36.31**
BSHL13		5	**41.00**	**33.04**	**34.98**	**41.00**	**34.94**	**34.98**
BSHL14		5	**39.81**	**32.21**	**33.92**	**39.81**	**33.88**	**33.92**
PGHR2_1	Pagham Habour (SPA)	20	15.68	13.57	16.50	15.68	15.75	16.50
PGHR2_2		20	14.71	12.69	15.21	14.71	14.55	15.21
PGHR2_3		20	13.86	11.92	14.08	13.86	13.52	14.08
PGHR2_4		20	12.91	11.08	12.83	12.91	12.38	12.83
PGHR2_5		20	12.27	10.51	11.99	12.27	11.60	11.99
PGHR2_6		20	11.78	10.08	11.36	11.78	11.02	11.36
PGHR2_7		20	11.41	9.76	10.87	11.41	10.58	10.87
PGHR2_8		20	10.34	8.82	9.49	10.34	9.32	9.49
PGHR2_9		20	9.86	8.40	8.87	9.86	8.75	8.87
PGHR2_10		20	9.59	8.17	8.53	9.59	8.43	8.53
PGHR2_11		20	9.42	8.02	8.31	9.42	8.23	8.31
PGHR2_12		20	9.30	7.92	8.16	9.30	8.10	8.16
PGHR2_13		20	9.22	7.85	8.05	9.22	8.00	8.05

Receptor	Designated Site	Critical Load	Total Concentration in Isolation			Total Concentration in Combination		
			Base Year	Future Year DM	Future Year DS	Base Year	Future Year DM	Future year DS
PGHR2_14		20	9.15	7.80	7.97	9.15	7.92	7.97
MENS1_1	The Mens (SAC)	10	**27.95**	**23.72**	**25.61**	**27.95**	**25.46**	**25.61**
MENS1_2		10	**27.82**	**23.61**	**25.35**	**27.82**	**25.20**	**25.35**
MENS1_3		10	**27.66**	**23.48**	**25.03**	**27.66**	**24.90**	**25.03**
MENS1_4		10	**27.46**	**23.32**	**24.64**	**27.46**	**24.53**	**24.64**
MENS1_5		10	**27.32**	**23.21**	**24.35**	**27.32**	**24.26**	**24.35**
MENS1_6		10	**27.21**	**23.12**	**24.13**	**27.21**	**24.04**	**24.13**
MENS1_7		10	**27.12**	**23.05**	**23.96**	**27.12**	**23.88**	**23.96**
MENS1_8		10	**26.87**	**22.84**	**23.45**	**26.87**	**23.40**	**23.45**
MENS1_9		10	**26.74**	**22.75**	**23.20**	**26.74**	**23.16**	**23.20**
MENS1_10		10	**26.67**	**22.69**	**23.05**	**26.67**	**23.02**	**23.05**
MENS1_11		10	**26.62**	**22.65**	**22.96**	**26.62**	**22.93**	**22.96**
MENS1_12		10	**26.59**	**22.62**	**22.89**	**26.59**	**22.87**	**22.89**
MENS1_13		10	**26.56**	**22.60**	**22.84**	**26.56**	**22.82**	**22.84**
MENS1_14		10	**26.54**	**22.58**	**22.80**	**26.54**	**22.78**	**22.80**
MENS2_1	The Mens (SAC)	10	**27.89**	**23.67**	**25.49**	**27.89**	**25.34**	**25.49**
MENS2_2		10	**27.76**	**23.56**	**25.22**	**27.76**	**25.08**	**25.22**
MENS2_3		10	**27.60**	**23.43**	**24.91**	**27.60**	**24.78**	**24.91**
MENS2_4		10	**27.41**	**23.27**	**24.52**	**27.41**	**24.41**	**24.52**
MENS2_5		10	**27.26**	**23.16**	**24.23**	**27.26**	**24.14**	**24.23**
MENS2_6		10	**27.15**	**23.07**	**24.01**	**27.15**	**23.94**	**24.01**
MENS2_7		10	**27.06**	**23.00**	**23.84**	**27.06**	**23.77**	**23.84**
MENS2_8		10	**26.81**	**22.80**	**23.33**	**26.81**	**23.29**	**23.33**
MENS2_9		10	**26.69**	**22.70**	**23.09**	**26.69**	**23.06**	**23.09**
MENS2_10		10	**26.62**	**22.65**	**22.96**	**26.62**	**22.93**	**22.96**
MENS2_11		10	**26.58**	**22.61**	**22.87**	**26.58**	**22.85**	**22.87**
MENS2_12		10	**26.54**	**22.59**	**22.81**	**26.54**	**22.79**	**22.81**
MENS2_13		10	**26.52**	**22.57**	**22.76**	**26.52**	**22.75**	**22.76**
MENS2_14		10	**26.51**	**22.56**	**22.73**	**26.51**	**22.71**	**22.73**
EBCM1	Ebernoe Common (SAC)	10	**31.31**	**26.34**	**27.91**	**31.31**	**28.08**	**27.91**

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Receptor	Designated Site	Critical Load	Total Concentration in Isolation			Total Concentration in Combination		
			Base Year	Future Year DM	Future Year DS	Base Year	Future Year DM	Future year DS
EBCM2		10	**30.68**	**25.84**	**27.25**	**30.68**	**27.39**	**27.25**
EBCM3		10	**30.22**	**25.48**	**26.71**	**30.22**	**26.84**	**26.71**
EBCM4		10	**29.71**	**25.08**	**26.12**	**29.71**	**26.23**	**26.12**
EBCM5		10	**29.35**	**24.80**	**25.73**	**29.35**	**25.82**	**25.73**
EBCM6		10	**29.09**	**24.59**	**25.43**	**29.09**	**25.51**	**25.43**
EBCM7		10	**28.88**	**24.43**	**25.19**	**28.88**	**25.26**	**25.19**
EBCM8		10	**28.20**	**23.89**	**24.40**	**28.20**	**24.45**	**24.40**
EBCM9		10	**27.82**	**23.61**	**23.98**	**27.82**	**24.02**	**23.98**
EBCM10		10	**27.59**	**23.43**	**23.73**	**27.59**	**23.76**	**23.73**
EBCM11		10	**27.45**	**23.31**	**23.56**	**27.45**	**23.58**	**23.56**
EBCM12		10	**27.34**	**23.23**	**23.45**	**27.34**	**23.47**	**23.45**
EBCM13		10	**27.26**	**23.16**	**23.36**	**27.26**	**23.38**	**23.36**
EBCM14		10	**27.19**	**23.12**	**23.30**	**27.19**	**23.31**	**23.30**

3.2 Total Ammonia Concentration Results

Table 19. Total ammonia concentration rates for the Local Plan in isolation and in combination with other plans and projects

Note: Numbers in **Bold** are above the relevant critical loads/levels.

Receptor	Designated Site	Critical Level	Total Concentration in Isolation			Total Concentration in Combination		
			Base Year	Future Year DM	Future Year DS	Base Year	Future Year DM	Future year DS
CLSM1_1	Solent Maritime (SAC) and Chichester and Langstone Harbours (SPA)	3	0.96	1.41	1.43	0.96	1.24	1.43
CLSM1_2		3	0.91	1.34	1.36	0.91	1.17	1.36
CLSM1_3		3	0.84	1.25	1.26	0.84	1.09	1.26
CLSM1_4		3	0.76	1.12	1.13	0.76	0.98	1.13
CLSM1_5		3	0.69	1.02	1.03	0.69	0.89	1.03
CLSM1_6		3	0.63	0.94	0.95	0.63	0.82	0.95

Receptor	Designated Site	Critical Level	Total Concentration in Isolation			Total Concentration in Combination		
			Base Year	Future Year DM	Future Year DS	Base Year	Future Year DM	Future year DS
CLSM1_7		3	0.58	0.87	0.88	0.58	0.76	0.88
CLSM1_8		3	0.43	0.64	0.65	0.43	0.56	0.65
CLSM1_9		3	0.34	0.51	0.52	0.34	0.45	0.52
CLSM1_10		3	0.29	0.43	0.43	0.29	0.37	0.43
CLSM1_11		3	0.25	0.37	0.37	0.25	0.32	0.37
CLSM1_12		3	0.22	0.33	0.33	0.22	0.28	0.33
CLSM1_13		3	0.20	0.29	0.30	0.20	0.25	0.30
CLSM1_14		3	0.18	0.27	0.27	0.18	0.23	0.27
KGVE1	Kingley Vale (SAC)	1	0.02	0.04	0.04	0.02	0.03	0.04
KGVE2		1	0.02	0.04	0.04	0.02	0.03	0.04
KGVE3		1	0.02	0.04	0.04	0.02	0.03	0.04
KGVE4		1	0.02	0.04	0.04	0.02	0.03	0.04
KGVE5		1	0.02	0.04	0.04	0.02	0.02	0.04
KGVE6		1	0.02	0.04	0.04	0.02	0.02	0.04
KGVE7		1	0.02	0.04	0.04	0.02	0.02	0.04
KGVE8		1	0.02	0.03	0.03	0.02	0.02	0.03
KGVE9		1	0.02	0.03	0.03	0.02	0.02	0.03
KGVE10		1	0.01	0.03	0.03	0.01	0.02	0.03
KGVE11		1	0.01	0.03	0.03	0.01	0.02	0.03
KGVE12		1	0.01	0.02	0.02	0.01	0.02	0.02
KGVE13		1	0.01	0.02	0.02	0.01	0.01	0.02
KGVE14		1	0.01	0.02	0.02	0.01	0.01	0.02
PGHR1_1	Pagham Habour (SPA)	3	0.95	1.62	1.77	0.95	1.18	1.77
PGHR1_2		3	0.84	1.44	1.57	0.84	1.05	1.57
PGHR1_3		3	0.74	1.26	1.37	0.74	0.92	1.37
PGHR1_4		3	0.62	1.06	1.16	0.62	0.77	1.16
PGHR1_5		3	0.54	0.91	1.00	0.54	0.67	1.00
PGHR1_6		3	0.47	0.80	0.88	0.47	0.59	0.88
PGHR1_7		3	0.42	0.72	0.78	0.42	0.52	0.78
PGHR1_8		3	0.27	0.45	0.49	0.27	0.33	0.49

Receptor	Designated Site	Critical Level	Total Concentration in Isolation			Total Concentration in Combination		
			Base Year	Future Year DM	Future Year DS	Base Year	Future Year DM	Future year DS
PGHR1_9		3	0.19	0.32	0.35	0.19	0.23	0.35
PGHR1_10		3	0.15	0.25	0.27	0.15	0.18	0.27
PGHR1_11		3	0.12	0.20	0.22	0.12	0.15	0.22
PGHR1_12		3	0.10	0.17	0.18	0.10	0.12	0.18
PGHR1_13		3	0.09	0.14	0.16	0.09	0.11	0.16
PGHR1_14		3	0.07	0.13	0.14	0.07	0.09	0.14
DNBG1	Duncton to Bignor Escarpment (SAC)	3	0.21	0.54	0.57	0.21	0.27	0.57
DNBG2		3	0.20	0.50	0.53	0.20	0.25	0.53
DNBG3		3	0.18	0.45	0.49	0.18	0.23	0.49
DNBG4		3	0.16	0.40	0.42	0.16	0.20	0.42
DNBG5		3	0.14	0.35	0.38	0.14	0.18	0.38
DNBG6		3	0.13	0.32	0.34	0.13	0.16	0.34
DNBG7		3	0.12	0.29	0.31	0.12	0.14	0.31
DNBG8		3	0.08	0.20	0.21	0.08	0.10	0.21
DNBG9		3	0.06	0.15	0.16	0.06	0.07	0.16
DNBG10		3	0.05	0.12	0.13	0.05	0.06	0.13
DNBG11		3	0.04	0.10	0.11	0.04	0.05	0.11
DNBG12		3	0.04	0.09	0.09	0.04	0.04	0.09
DNBG13		3	0.03	0.08	0.08	0.03	0.04	0.08
DNBG14		3	0.03	0.07	0.08	0.03	0.04	0.08
SACT1	Singleton and Cocking Tunnels (SAC)	3	0.03	0.07	0.07	0.03	0.04	0.07
SACT2		3	0.03	0.07	0.07	0.03	0.04	0.07
SACT3		3	0.03	0.07	0.07	0.03	0.04	0.07
SACT4		3	0.03	0.06	0.07	0.03	0.04	0.07
SACT5		3	0.03	0.06	0.07	0.03	0.04	0.07
SACT6		3	0.03	0.06	0.07	0.03	0.04	0.07
SACT7		3	0.03	0.06	0.06	0.03	0.04	0.06
CLSM2_1	Solent Maritime (SAC) and Chichester and Langstone Harbours (SPA)	3	0.03	0.06	0.06	0.03	0.04	0.06
CLSM2_2		3	0.03	0.06	0.06	0.03	0.04	0.06
CLSM2_3		3	0.03	0.06	0.06	0.03	0.04	0.06

Receptor	Designated Site	Critical Level	Total Concentration in Isolation			Total Concentration in Combination		
			Base Year	Future Year DM	Future Year DS	Base Year	Future Year DM	Future year DS
CLSM2_4		3	0.03	0.06	0.06	0.03	0.04	0.06
CLSM2_5		3	0.03	0.05	0.06	0.03	0.04	0.06
CLSM2_6		3	0.03	0.05	0.06	0.03	0.04	0.06
CLSM2_7		3	0.03	0.05	0.06	0.03	0.04	0.06
CLSM2_8		3	0.03	0.05	0.05	0.03	0.03	0.05
CLSM2_9		3	0.03	0.05	0.05	0.03	0.03	0.05
CLSM2_10		3	0.02	0.04	0.04	0.02	0.03	0.04
CLSM2_11		3	0.02	0.04	0.04	0.02	0.03	0.04
CLSM2_12		3	0.02	0.04	0.04	0.02	0.03	0.04
CLSM2_13		3	0.02	0.04	0.04	0.02	0.03	0.04
CLSM2_14		3	0.02	0.04	0.04	0.02	0.02	0.04
SOME1	Solent Maritime (SAC) and Chichester and Langstone Harbours (SPA)	3	0.34	0.60	0.68	0.34	0.42	0.68
SOME2		3	0.31	0.54	0.62	0.31	0.38	0.62
SOME3		3	0.27	0.48	0.54	0.27	0.34	0.54
SOME4		3	0.23	0.40	0.45	0.23	0.28	0.45
SOME5		3	0.19	0.34	0.38	0.19	0.24	0.38
SOME6		3	0.17	0.29	0.33	0.17	0.21	0.33
SOME7		3	0.15	0.26	0.29	0.15	0.18	0.29
SOME8		3	0.09	0.16	0.18	0.09	0.12	0.18
SOME9		3	0.07	0.12	0.13	0.07	0.09	0.13
SOME10		3	0.06	0.10	0.11	0.06	0.07	0.11
SOME11		3	0.05	0.08	0.09	0.05	0.06	0.09
SOME12		3	0.04	0.07	0.08	0.04	0.05	0.08
SOME13		3	0.04	0.06	0.07	0.04	0.05	0.07
SOME14		3	0.03	0.06	0.06	0.03	0.04	0.06
CLSM3_1	Solent Maritime (SAC) and Chichester and Langstone Harbours (SPA)	3	0.34	0.55	0.60	0.34	0.40	0.60
CLSM3_2		3	0.32	0.52	0.57	0.32	0.38	0.57
CLSM3_3		3	0.29	0.47	0.52	0.29	0.34	0.52
CLSM3_4		3	0.26	0.42	0.45	0.26	0.30	0.45
CLSM3_5		3	0.23	0.38	0.40	0.23	0.27	0.40

Receptor	Designated Site	Critical Level	Total Concentration in Isolation			Total Concentration in Combination		
			Base Year	Future Year DM	Future Year DS	Base Year	Future Year DM	Future year DS
CLSM3_6		3	0.21	0.34	0.36	0.21	0.24	0.36
CLSM3_7		3	0.19	0.31	0.33	0.19	0.22	0.33
CLSM3_8		3	0.13	0.23	0.23	0.13	0.16	0.23
CLSM3_9		3	0.11	0.18	0.18	0.11	0.13	0.18
CLSM3_10		3	0.09	0.15	0.15	0.09	0.11	0.15
CLSM3_11		3	0.08	0.13	0.13	0.08	0.09	0.13
CLSM3_12		3	0.07	0.12	0.12	0.07	0.09	0.12
CLSM3_13		3	0.06	0.11	0.11	0.06	0.08	0.11
CLSM3_14		3	0.06	0.10	0.10	0.06	0.07	0.10
SLDR1	Portsmouth Harbour (under Solent & Dorset Coast in GIS) (SPA)	3	0.86	1.30	1.32	0.86	1.11	1.32
SLDR2		3	0.82	1.24	1.26	0.82	1.06	1.26
SLDR3		3	0.76	1.16	1.17	0.76	0.99	1.17
SLDR4		3	0.69	1.04	1.05	0.69	0.89	1.05
SLDR5		3	0.62	0.94	0.96	0.62	0.81	0.96
SLDR6		3	0.57	0.86	0.88	0.57	0.74	0.88
SLDR7		3	0.53	0.80	0.81	0.53	0.68	0.81
SLDR8		3	0.38	0.57	0.58	0.38	0.49	0.58
SLDR9		3	0.30	0.45	0.45	0.30	0.38	0.45
SLDR10		3	0.24	0.36	0.37	0.24	0.31	0.37
BSHL1	Buster Hill (SAC)	1	**2.01**	**3.07**	**3.08**	**2.01**	**2.65**	**3.08**
BSHL2		1	**1.92**	**2.93**	**2.94**	**1.92**	**2.53**	**2.94**
BSHL3		1	**1.80**	**2.75**	**2.76**	**1.80**	**2.37**	**2.76**
BSHL4		1	**1.63**	**2.49**	**2.50**	**1.63**	**2.15**	**2.50**
BSHL5		1	**1.49**	**2.27**	**2.28**	**1.49**	**1.96**	**2.28**
BSHL6		1	**1.37**	**2.08**	**2.09**	**1.37**	**1.80**	**2.09**
BSHL7		1	**1.27**	**1.93**	**1.93**	**1.27**	**1.66**	**1.93**
BSHL8		1	0.91	**1.38**	**1.39**	0.91	**1.19**	**1.39**
BSHL9		1	0.70	**1.06**	**1.06**	0.70	0.91	**1.06**
BSHL10		1	0.56	0.85	0.85	0.56	0.73	0.85
BSHL11		1	0.47	0.70	0.71	0.47	0.61	0.71

Receptor	Designated Site	Critical Level	Total Concentration in Isolation			Total Concentration in Combination		
			Base Year	Future Year DM	Future Year DS	Base Year	Future Year DM	Future year DS
BSHL12		1	0.39	0.60	0.60	0.39	0.51	0.60
BSHL13		1	0.34	0.51	0.52	0.34	0.44	0.52
BSHL14		1	0.30	0.45	0.45	0.30	0.38	0.45
PGHR2_1	Pagham Habour (SPA)	3	0.82	1.38	1.51	0.82	1.01	1.51
PGHR2_2		3	0.70	1.18	1.29	0.70	0.87	1.29
PGHR2_3		3	0.60	1.01	1.10	0.60	0.74	1.10
PGHR2_4		3	0.49	0.82	0.90	0.49	0.60	0.90
PGHR2_5		3	0.41	0.69	0.76	0.41	0.51	0.76
PGHR2_6		3	0.35	0.60	0.65	0.35	0.44	0.65
PGHR2_7		3	0.31	0.52	0.57	0.31	0.38	0.57
PGHR2_8		3	0.18	0.31	0.34	0.18	0.23	0.34
PGHR2_9		3	0.13	0.22	0.24	0.13	0.16	0.24
PGHR2_10		3	0.10	0.17	0.18	0.10	0.12	0.18
PGHR2_11		3	0.08	0.13	0.14	0.08	0.10	0.14
PGHR2_12		3	0.07	0.11	0.12	0.07	0.08	0.12
PGHR2_13		3	0.06	0.09	0.10	0.06	0.07	0.10
PGHR2_14		3	0.05	0.08	0.09	0.05	0.06	0.09
MENS1_1	The Mens (SAC)	3	1.62	1.60	1.62	1.62	1.42	1.62
MENS1_2		3	1.61	1.58	1.59	1.61	1.41	1.59
MENS1_3		3	1.60	1.54	1.56	1.60	1.40	1.56
MENS1_4		3	1.59	1.51	1.52	1.59	1.38	1.52
MENS1_5		3	1.58	1.48	1.49	1.58	1.37	1.49
MENS1_6		3	1.57	1.45	1.46	1.57	1.36	1.46
MENS1_7		3	1.56	1.44	1.45	1.56	1.35	1.45
MENS1_8		3	1.54	1.39	1.39	1.54	1.33	1.39
MENS1_9		3	1.54	1.36	1.37	1.54	1.32	1.37
MENS1_10		3	1.53	1.35	1.35	1.53	1.31	1.35
MENS1_11		3	1.53	1.34	1.34	1.53	1.31	1.34
MENS1_12		3	1.53	1.33	1.33	1.53	1.31	1.33
MENS1_13		3	1.52	1.33	1.33	1.52	1.30	1.33

Receptor	Designated Site	Critical Level	Total Concentration in Isolation			Total Concentration in Combination		
			Base Year	Future Year DM	Future Year DS	Base Year	Future Year DM	Future year DS
MENS1_14		3	1.52	1.32	1.32	1.52	1.30	1.32
MENS2_1	The Mens (SAC)	3	1.61	1.59	1.61	1.61	1.41	1.61
MENS2_2		3	1.61	1.56	1.58	1.61	1.40	1.58
MENS2_3		3	1.59	1.53	1.54	1.59	1.39	1.54
MENS2_4		3	1.58	1.49	1.50	1.58	1.37	1.50
MENS2_5		3	1.57	1.47	1.47	1.57	1.36	1.47
MENS2_6		3	1.56	1.44	1.45	1.56	1.35	1.45
MENS2_7		3	1.56	1.43	1.43	1.56	1.35	1.43
MENS2_8		3	1.54	1.38	1.38	1.54	1.32	1.38
MENS2_9		3	1.53	1.35	1.35	1.53	1.31	1.35
MENS2_10		3	1.53	1.34	1.34	1.53	1.31	1.34
MENS2_11		3	1.53	1.33	1.33	1.53	1.30	1.33
MENS2_12		3	1.52	1.32	1.33	1.52	1.30	1.33
MENS2_13		3	1.52	1.32	1.32	1.52	1.30	1.32
MENS2_14		3	1.52	1.32	1.32	1.52	1.30	1.32
EBCM1	Ebernoe Common (SAC)	3	1.89	1.90	1.89	1.89	1.73	1.89
EBCM2		3	1.85	1.83	1.82	1.85	1.68	1.82
EBCM3		3	1.82	1.78	1.77	1.82	1.64	1.77
EBCM4		3	1.79	1.72	1.71	1.79	1.60	1.71
EBCM5		3	1.77	1.67	1.66	1.77	1.57	1.66
EBCM6		3	1.75	1.64	1.63	1.75	1.55	1.63
EBCM7		3	1.74	1.62	1.61	1.74	1.53	1.61
EBCM8		3	1.69	1.53	1.53	1.69	1.48	1.53
EBCM9		3	1.67	1.49	1.49	1.67	1.45	1.49
EBCM10		3	1.65	1.46	1.46	1.65	1.43	1.46
EBCM11		3	1.64	1.45	1.44	1.64	1.42	1.44
EBCM12		3	1.64	1.43	1.43	1.64	1.41	1.43
EBCM13		3	1.63	1.42	1.42	1.63	1.40	1.42
EBCM14		3	1.63	1.42	1.42	1.63	1.40	1.42

B.3 Total NO_x Concentration Results

Table 20. Total NO_x concentration rates for the Local Plan in isolation and in combination with other plans and projects

Note: Numbers in **Bold** are above the relevant critical loads/levels.

Receptor	Designated Site	Critical Level	Total Concentration in Isolation			Total Concentration in Combination		
			Base Year	Future Year DM	Future Year DS	Base Year	Future Year DM	Future year DS
CLSM1_1	Solent Maritime (SAC) and Chichester and Langstone Harbours (SPA)	30	**77.02**	**30.66**	**30.83**	**77.02**	**30.50**	**30.83**
CLSM1_2		30	**73.83**	29.72	29.89	**73.83**	29.57	29.89
CLSM1_3		30	**69.68**	28.51	28.65	**69.68**	28.36	28.65
CLSM1_4		30	**64.06**	26.86	26.99	**64.06**	26.73	26.99
CLSM1_5		30	**59.60**	25.55	25.67	**59.60**	25.43	25.67
CLSM1_6		30	**55.96**	24.48	24.59	**55.96**	24.37	24.59
CLSM1_7		30	**52.93**	23.60	23.69	**52.93**	23.49	23.69
CLSM1_8		30	**43.03**	20.70	20.76	**43.03**	20.61	20.76
CLSM1_9		30	**37.51**	19.08	19.12	**37.51**	19.00	19.12
CLSM1_10		30	**33.95**	18.04	18.07	**33.95**	17.97	18.07
CLSM1_11		30	**31.44**	17.31	17.33	**31.44**	17.24	17.33
CLSM1_12		30	29.57	16.76	16.78	29.57	16.70	16.78
CLSM1_13		30	28.12	16.34	16.35	28.12	16.27	16.35
CLSM1_14		30	26.96	16.00	16.01	26.96	15.94	16.01
KGVE1	Kingley Vale (SAC)	30	10.56	7.88	7.91	10.56	7.63	7.91
KGVE2		30	10.55	7.88	7.90	10.55	7.63	7.90
KGVE3		30	10.53	7.87	7.89	10.53	7.63	7.89
KGVE4		30	10.50	7.85	7.88	10.50	7.62	7.88
KGVE5		30	10.48	7.84	7.87	10.48	7.61	7.87
KGVE6		30	10.45	7.83	7.86	10.45	7.60	7.86
KGVE7		30	10.43	7.82	7.84	10.43	7.59	7.84
KGVE8		30	10.33	7.77	7.79	10.33	7.56	7.79
KGVE9		30	10.27	7.74	7.76	10.27	7.54	7.76
KGVE10		30	10.21	7.71	7.73	10.21	7.53	7.73
KGVE11		30	10.17	7.69	7.70	10.17	7.51	7.70

Receptor	Designated Site	Critical Level	Total Concentration in Isolation			Total Concentration in Combination		
			Base Year	Future Year DM	Future Year DS	Base Year	Future Year DM	Future year DS
KGVE12		30	10.14	7.67	7.68	10.14	7.50	7.68
KGVE13		30	10.10	7.65	7.66	10.10	7.49	7.66
KGVE14		30	10.07	7.64	7.65	10.07	7.48	7.65
PGHR1_1	Pagham Habour (SPA)	30	**52.10**	25.50	27.05	**52.10**	21.58	27.05
PGHR1_2		30	**47.53**	23.61	24.98	**47.53**	20.13	24.98
PGHR1_3		30	**43.11**	21.75	22.96	**43.11**	18.72	22.96
PGHR1_4		30	**38.06**	19.68	20.69	**38.06**	17.13	20.69
PGHR1_5		30	**34.45**	18.19	19.07	**34.45**	15.99	19.07
PGHR1_6		30	**31.67**	17.03	17.80	**31.67**	15.11	17.80
PGHR1_7		30	29.42	16.12	16.81	29.42	14.40	16.81
PGHR1_8		30	22.65	13.37	13.81	22.65	12.27	13.81
PGHR1_9		30	19.35	12.02	12.33	19.35	11.23	12.33
PGHR1_10		30	17.51	11.25	11.49	17.51	10.66	11.49
PGHR1_11		30	16.33	10.76	10.95	16.33	10.29	10.95
PGHR1_12		30	15.51	10.42	10.59	15.51	10.03	10.59
PGHR1_13		30	14.90	10.19	10.33	14.90	9.84	10.33
PGHR1_14		30	14.46	10.01	10.14	14.46	9.70	10.14
DNBG1	Duncton to Bignor Escarpment (SAC)	30	17.86	12.38	12.77	17.86	9.59	12.77
DNBG2		30	17.21	11.99	12.35	17.21	9.38	12.35
DNBG3		30	16.44	11.52	11.85	16.44	9.14	11.85
DNBG4		30	15.46	10.91	11.20	15.46	8.83	11.20
DNBG5		30	14.71	10.45	10.71	14.71	8.59	10.71
DNBG6		30	14.11	10.08	10.31	14.11	8.39	10.31
DNBG7		30	13.62	9.77	9.98	13.62	8.24	9.98
DNBG8		30	12.03	8.79	8.93	12.03	7.73	8.93
DNBG9		30	11.21	8.26	8.37	11.21	7.47	8.37
DNBG10		30	10.70	7.95	8.03	10.70	7.31	8.03
DNBG11		30	10.37	7.74	7.81	10.37	7.20	7.81
DNBG12		30	10.15	7.60	7.66	10.15	7.13	7.66
DNBG13		30	9.99	7.49	7.55	9.99	7.08	7.55

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Receptor	Designated Site	Critical Level	Total Concentration in Isolation			Total Concentration in Combination		
			Base Year	Future Year DM	Future Year DS	Base Year	Future Year DM	Future year DS
DNBG14		30	9.86	7.41	7.46	9.86	7.04	7.46
SACT1	Singleton and Cocking Tunnels (SAC)	30	10.76	7.95	8.02	10.76	7.62	8.02
SACT2		30	10.74	7.94	8.01	10.74	7.61	8.01
SACT3		30	10.71	7.93	7.99	10.71	7.61	7.99
SACT4		30	10.67	7.90	7.97	10.67	7.59	7.97
SACT5		30	10.64	7.88	7.95	10.64	7.58	7.95
SACT6		30	10.60	7.86	7.93	10.60	7.57	7.93
SACT7		30	10.57	7.85	7.91	10.57	7.56	7.91
CLSM2_1	Solent Maritime (SAC) and Chichester and Langstone Harbours (SPA)	30	13.35	9.90	9.94	13.35	9.73	9.94
CLSM2_2		30	13.34	9.89	9.93	13.34	9.72	9.93
CLSM2_3		30	13.32	9.88	9.92	13.32	9.72	9.92
CLSM2_4		30	13.30	9.87	9.91	13.30	9.71	9.91
CLSM2_5		30	13.27	9.86	9.90	13.27	9.70	9.90
CLSM2_6		30	13.25	9.85	9.88	13.25	9.69	9.88
CLSM2_7		30	13.23	9.84	9.87	13.23	9.69	9.87
CLSM2_8		30	13.13	9.80	9.82	13.13	9.66	9.82
CLSM2_9		30	13.05	9.76	9.78	13.05	9.63	9.78
CLSM2_10		30	12.99	9.73	9.75	12.99	9.61	9.75
CLSM2_11		30	12.93	9.71	9.72	12.93	9.59	9.72
CLSM2_12		30	12.89	9.69	9.70	12.89	9.58	9.70
CLSM2_13		30	12.85	9.67	9.68	12.85	9.57	9.68
CLSM2_14		30	12.82	9.66	9.66	12.82	9.56	9.66
SOME1	Solent Maritime (SAC) and Chichester and Langstone Harbours (SPA)	30	25.56	14.85	15.70	25.56	13.20	15.70
SOME2		30	24.25	14.28	15.05	24.25	12.78	15.05
SOME3		30	22.67	13.59	14.26	22.67	12.28	14.26
SOME4		30	20.72	12.74	13.29	20.72	11.66	13.29
SOME5		30	19.32	12.13	12.60	19.32	11.21	12.60
SOME6		30	18.26	11.67	12.07	18.26	10.88	12.07
SOME7		30	17.44	11.32	11.67	17.44	10.62	11.67
SOME8		30	15.15	10.33	10.54	15.15	9.89	10.54

Receptor	Designated Site	Critical Level	Total Concentration in Isolation			Total Concentration in Combination		
			Base Year	Future Year DM	Future Year DS	Base Year	Future Year DM	Future year DS
SOME9		30	14.12	9.88	10.03	14.12	9.56	10.03
SOME10		30	13.53	9.62	9.74	13.53	9.37	9.74
SOME11		30	13.16	9.46	9.55	13.16	9.26	9.55
SOME12		30	12.90	9.35	9.43	12.90	9.17	9.43
SOME13		30	12.71	9.27	9.33	12.71	9.11	9.33
SOME14		30	12.56	9.21	9.26	12.56	9.07	9.26
CLSM3_1	Solent Maritime (SAC) and Chichester and Langstone Harbours (SPA)	30	24.94	14.22	14.80	24.94	12.67	14.80
CLSM3_2		30	24.08	13.85	14.37	24.08	12.39	14.37
CLSM3_3		30	22.97	13.38	13.82	22.97	12.03	13.82
CLSM3_4		30	21.50	12.76	13.10	21.50	11.56	13.10
CLSM3_5		30	20.37	12.28	12.55	20.37	11.20	12.55
CLSM3_6		30	19.48	11.89	12.11	19.48	10.91	12.11
CLSM3_7		30	18.75	11.58	11.75	18.75	10.67	11.75
CLSM3_8		30	16.50	10.60	10.66	16.50	9.95	10.66
CLSM3_9		30	15.33	10.09	10.10	15.33	9.58	10.10
CLSM3_10		30	14.62	9.77	9.76	14.62	9.35	9.76
CLSM3_11		30	14.13	9.55	9.53	14.13	9.20	9.53
CLSM3_12		30	13.78	9.39	9.37	13.78	9.09	9.37
CLSM3_13		30	13.50	9.27	9.25	13.50	9.00	9.25
CLSM3_14		30	13.28	9.17	9.15	13.28	8.93	9.15
SLDR1	Portsmouth Harbour (under Solent & Dorset Coast in GIS) (SPA)	30	**77.31**	**33.90**	**34.09**	**77.31**	**33.69**	**34.09**
SLDR2		30	**74.65**	**33.10**	**33.28**	**74.65**	**32.92**	**33.28**
SLDR3		30	**71.11**	**32.05**	**32.21**	**71.11**	**31.88**	**32.21**
SLDR4		30	**66.18**	**30.58**	**30.72**	**66.18**	**30.44**	**30.72**
SLDR5		30	**62.15**	29.38	29.51	**62.15**	29.27	29.51
SLDR6		30	**58.79**	28.39	28.51	**58.79**	28.29	28.51
SLDR7		30	**55.96**	27.55	27.66	**55.96**	27.46	27.66
SLDR8		30	**46.52**	24.76	24.84	**46.52**	24.71	24.84
SLDR9		30	**41.16**	23.19	23.25	**41.16**	23.15	23.25
SLDR10		30	**37.72**	22.18	22.23	**37.72**	22.14	22.23

Receptor	Designated Site	Critical Level	Total Concentration in Isolation			Total Concentration in Combination		
			Base Year	Future Year DM	Future Year DS	Base Year	Future Year DM	Future year DS
BSHL1	Buster Hill (SAC)	30	**303.79**	**187.81**	**188.92**	**303.79**	**133.77**	**188.92**
BSHL2		30	**290.74**	**179.73**	**180.79**	**290.74**	**128.09**	**180.79**
BSHL3		30	**273.25**	**168.94**	**169.93**	**273.25**	**120.51**	**169.93**
BSHL4		30	**248.35**	**153.56**	**154.45**	**248.35**	**109.71**	**154.45**
BSHL5		30	**227.54**	**140.72**	**141.54**	**227.54**	**100.69**	**141.54**
BSHL6		30	**209.98**	**129.92**	**130.67**	**209.98**	**93.12**	**130.67**
BSHL7		30	**194.95**	**120.69**	**121.38**	**194.95**	**86.65**	**121.38**
BSHL8		30	**142.60**	**88.58**	**89.08**	**142.60**	**64.15**	**89.08**
BSHL9		30	**111.87**	**69.75**	**70.14**	**111.87**	**50.98**	**70.14**
BSHL10		30	**91.75**	**57.49**	**57.80**	**91.75**	**42.40**	**57.80**
BSHL11		30	**77.63**	**48.90**	**49.15**	**77.63**	**36.39**	**49.15**
BSHL12		30	**67.14**	**42.55**	**42.76**	**67.14**	**31.91**	**42.76**
BSHL13		30	**59.16**	**37.69**	**37.88**	**59.16**	28.51	**37.88**
BSHL14		30	**52.89**	**33.85**	**34.01**	**52.89**	25.86	**34.01**
PGHR2_1	Pagham Habour (SPA)	30	**46.40**	23.05	24.37	**46.40**	19.74	24.37
PGHR2_2		30	**41.36**	20.98	22.12	**41.36**	18.15	22.12
PGHR2_3		30	**36.96**	19.19	20.16	**36.96**	16.77	20.16
PGHR2_4		30	**32.14**	17.22	18.01	**32.14**	15.25	18.01
PGHR2_5		30	28.87	15.88	16.54	28.87	14.22	16.54
PGHR2_6		30	26.42	14.88	15.45	26.42	13.45	15.45
PGHR2_7		30	24.54	14.11	14.62	24.54	12.86	14.62
PGHR2_8		30	19.20	11.93	12.24	19.20	11.19	12.24
PGHR2_9		30	16.79	10.95	11.16	16.79	10.43	11.16
PGHR2_10		30	15.45	10.41	10.57	15.45	10.02	10.57
PGHR2_11		30	14.62	10.07	10.20	14.62	9.75	10.20
PGHR2_12		30	14.03	9.83	9.94	14.03	9.57	9.94
PGHR2_13		30	13.62	9.66	9.76	13.62	9.44	9.76
PGHR2_14		30	13.30	9.53	9.61	13.30	9.34	9.61
MENS1_1	The Mens (SAC)	30	12.99	9.84	10.04	12.99	7.88	10.04
MENS1_2		30	12.60	9.55	9.73	12.60	7.76	9.73

Receptor	Designated Site	Critical Level	Total Concentration in Isolation			Total Concentration in Combination		
			Base Year	Future Year DM	Future Year DS	Base Year	Future Year DM	Future year DS
MENS1_3		30	12.15	9.21	9.37	12.15	7.62	9.37
MENS1_4		30	11.59	8.79	8.93	11.59	7.44	8.93
MENS1_5		30	11.18	8.48	8.60	11.18	7.31	8.60
MENS1_6		30	10.86	8.24	8.35	10.86	7.20	8.35
MENS1_7		30	10.61	8.06	8.15	10.61	7.12	8.15
MENS1_8		30	9.88	7.51	7.57	9.88	6.89	7.57
MENS1_9		30	9.52	7.24	7.29	9.52	6.78	7.29
MENS1_10		30	9.32	7.09	7.13	9.32	6.71	7.13
MENS1_11		30	9.18	6.99	7.02	9.18	6.67	7.02
MENS1_12		30	9.08	6.91	6.94	9.08	6.64	6.94
MENS1_13		30	9.01	6.86	6.88	9.01	6.61	6.88
MENS1_14		30	8.95	6.81	6.83	8.95	6.59	6.83
MENS2_1	The Mens (SAC)	30	12.81	9.70	9.90	12.81	7.83	9.90
MENS2_2		30	12.42	9.41	9.59	12.42	7.70	9.59
MENS2_3		30	11.97	9.08	9.23	11.97	7.56	9.23
MENS2_4		30	11.42	8.66	8.79	11.42	7.38	8.79
MENS2_5		30	11.01	8.35	8.47	11.01	7.25	8.47
MENS2_6		30	10.69	8.12	8.22	10.69	7.15	8.22
MENS2_7		30	10.44	7.93	8.02	10.44	7.07	8.02
MENS2_8		30	9.71	7.39	7.44	9.71	6.84	7.44
MENS2_9		30	9.37	7.13	7.17	9.37	6.73	7.17
MENS2_10		30	9.17	6.98	7.02	9.17	6.67	7.02
MENS2_11		30	9.05	6.89	6.92	9.05	6.63	6.92
MENS2_12		30	8.96	6.82	6.85	8.96	6.60	6.85
MENS2_13		30	8.89	6.77	6.79	8.89	6.58	6.79
MENS2_14		30	8.84	6.74	6.76	8.84	6.56	6.76
EBCM1	Ebernoe Common (SAC)	30	22.30	13.03	12.78	22.30	10.85	12.78
EBCM2		30	20.34	12.16	11.95	20.34	10.22	11.95
EBCM3		30	18.91	11.46	11.28	18.91	9.76	11.28
EBCM4		30	17.34	10.69	10.53	17.34	9.26	10.53

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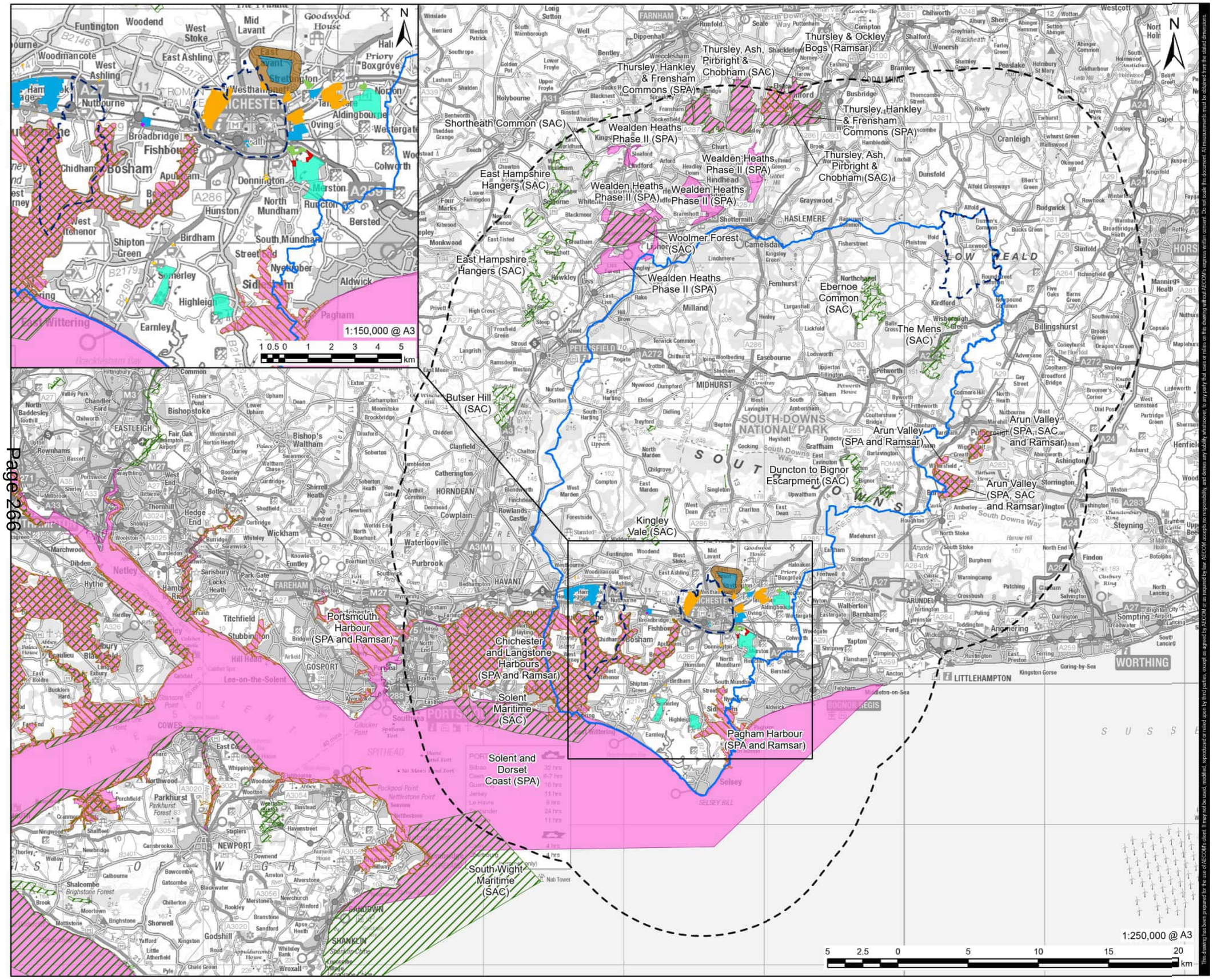
Receptor	Designated Site	Critical Level	Total Concentration in Isolation			Total Concentration in Combination		
			Base Year	Future Year DM	Future Year DS	Base Year	Future Year DM	Future year DS
EBCM5		30	16.25	10.18	10.04	16.25	8.90	10.04
EBCM6		30	15.44	9.79	9.67	15.44	8.64	9.67
EBCM7		30	14.78	9.48	9.36	14.78	8.43	9.36
EBCM8		30	12.70	8.46	8.38	12.70	7.76	8.38
EBCM9		30	11.56	7.91	7.86	11.56	7.40	7.86
EBCM10		30	10.87	7.58	7.54	10.87	7.18	7.54
EBCM11		30	10.41	7.37	7.33	10.41	7.03	7.33
EBCM12		30	10.09	7.22	7.19	10.09	6.92	7.19
EBCM13		30	9.84	7.11	7.09	9.84	6.84	7.09
EBCM14		30	9.65	7.02	7.00	9.65	6.78	7.00

Appendix C Maps



AECOM

PROJECT

Chichester HRA

CLIENT

Chichester District Council

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LEGEND

- Chichester District Boundary
- 10km Study Area
- Proposed Horticultural Development Area Deletion
- Horticultural Development Area
- Gypsy and Traveller Site
- Parish Allocations
- Existing Strategic Site Allocations
- New Employment Site Allocation
- Proposed Strategic Site Allocations
- SADPD Housing
- S15 Goodwood Motor Circuit and Airfield
- S16 Development Within Vicinity of Goodwood Motor Circuit and Airfield
- Ramsar
- Special Area of Conservation
- Special Protection Area

NOTES

ISSUE PURPOSE

FINAL

PROJECT NUMBER

60549754

FIGURE TITLE

European Sites and Allocations Within 10km

FIGURE NUMBER

Figure 1

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