



Report

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Chichester Site Allocation: Proposed Development Plan Document Submission

Habitat Regulation Assessment

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1 Introduction

1.1 Background to the Project

AECOM was appointed by Chichester District Council to assist the Council in undertaking a Habitat Regulations Assessment (HRA) of its emerging Site Allocation Development Plan. The objective of the assessment was to:

- identify any site allocation that would cause an adverse effect on the integrity of the Natura 2000 sites, otherwise known as European Sites (Special Areas of Conservation (SACs), Special Protection Areas (SPAs) 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

This document is a slightly updated version of the May 2015 report, to specifically reflect which sites have been incorporated in the Proposed Submission Development Plan Document. This report contains an analysis of all sites examined through the HRA process since 2015. Those sites chosen for the Proposed Submission Development Plan Document are given in **bold** in Tables 4.2, 4.3 and Tables 5.2 to 7.2 with their associated policy number. No new sites have been added since the May 2016 iteration of HRA.

1.2 Legislation

The need for Habitats Regulations Assessment is set out within Article 6 of the EC Habitats Directive 1992, and interpreted into British law by the Conservation of Habitats and Species Regulations 2010. The ultimate aim of the Directive is to “maintain or restore, at favourable conservation status, natural habitats and species of wild fauna and flora of Community interest” (Habitats Directive, Article 2(2)). This aim relates to habitats and species, not the European sites themselves, although the sites have a significant role in delivering favourable conservation status.

The Habitats Directive applies the precautionary principle to European sites. Plans and projects can only be permitted having ascertained that there will be no adverse effect on the integrity of the 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.

In order to ascertain whether or not site integrity will be affected, a Habitats Regulations Assessment should be undertaken of the plan or project in question:

Box 1. The legislative basis for Appropriate Assessment**Habitats Directive 1992**

Article 6 (3) states that:

“Any plan or project not directly connected with or necessary to the management of the site but likely to have a significant effect thereon, either individually or in combination with other plans or projects, shall be subject to appropriate assessment of its implications for the site in view of the site's conservation objectives.”

Conservation of Habitats and Species Regulations 2010 (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”.

Over the years the phrase ‘Habitats Regulations Assessment’ has come into wide currency to describe the overall process set out in the Conservation of Habitats and Species Regulations from screening through to Imperative Reasons of Overriding Public Interest (IROPI). This has arisen in order to distinguish the process from the individual stage described in the law as an ‘appropriate assessment’. Throughout this report we use the term Habitats Regulations Assessment (HRA) for the overall process.

1.3 Scope of the Project

There is no pre-defined guidance that dictates the physical scope of a HRA of a site allocation development plan. Therefore, in considering the physical scope of the assessment, we were guided primarily by the identified impact pathways rather than by arbitrary ‘zones’. Current guidance suggests that the following European sites be included in the scope of assessment:

- All sites within the Local Plan area boundary (this excludes areas within Chichester District boundary that are located within the South Downs National Park. The South Downs National Park Authority, controls its own Local Plan); and
- Other sites shown to be linked to development within the District boundary through a known ‘pathway’, which could include sites within the South Downs National Park (discussed below) or other surrounding authority boundaries.

Briefly defined, pathways are routes by which a change in activity within the Local Plan area can lead to an effect upon a European site. In terms of the second category of European site listed above, guidance from the former Department of Communities and Local Government 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’ (CLG, 2006, p.6).

There are five European site designations that lie wholly or partly within the Local Plan area, but outside of the South Downs National Park:

- Chichester and Langstone Harbours SPA and Ramsar sites;
- Pagham Harbour SPA and Ramsar sites; and,
- Solent Maritime SAC.

Within Chichester District, but under the planning control of the South Downs National Park Authority, other sites are included within the HRA, as agreed with Natural England in the HRA scoping report (2010)². These are

Ebernoe Common SAC, The Mens SAC, Duncton to Bignor Escarpment SAC and Arun Valley SAC, SPA and Ramsar sites. Following an amendment to the Plan in 2016, a single residential site allocation has potential to interact with the Wealden Heaths Phase 2 SPA,

The list of sites outside of the area covered by the Chichester Local Plan, but subject to screening is thus:

- Arun Valley SAC, SPA & Ramsar sites;
- Duncton to Bignor Escarpment SAC;
- Ebernoe Common SAC;
- The Mens SAC; and
- Wealden Heaths Phase 2 SPA.

These European site designations are indicated on Figure 1. In practice, the closest proposed site allocation to Arun Valley SPA/SAC/Ramsar site is 8.5km distant while the closest to Duncton to Bignor Escarpment SAC is approximately 8km distant. As such it is considered that the site allocation pose no identifiable pathways of impact to either of those European sites. They are therefore not discussed further in this report.

The following sites were scoped out of the assessment of the developing Local Plan since there was no identified pathway linking development in the Local Plan area to these sites¹:

- Kingley Vale SAC;
- Rook Clift SAC;
- Singleton and Cocking Tunnels SAC;
- Butser Hill SAC;
- East Hampshire Hangers SAC;
- Shortheath Common SAC;
- South Wight Maritime SAC;
- Solent and Isle of Wight Lagoons SAC; and
- Thursley and Ockley Bogs Ramsar.

Consideration has been given to whether individual site allocation raise pathways of impact on these European sites that could not be identified at the over-arching strategic level. However, no such pathways have been identified. As such, these sites are not considered further in this document.

1.4 This report

The Site Allocation Development Plan will not stand in isolation but is intended to provide further site-specific details on the overall strategy set out in the Local Plan. Similarly, the HRA of the site allocation does not re-investigate all issues that were already considered at Local Plan level and in particular does not reinvestigate matters associated with the overall quantum of development proposed for the district or its broad distribution (since those were both investigated at Local Plan level). The HRA of the site allocation is specifically intended to scrutinise each proposed site and determine which (if any) of the strategic issues identified in the Local Plan HRA apply to the site, whether mitigation must therefore be tied to that site and whether the site raises any issues that were not identified in the Local Plan HRA.

¹ Appropriate Assessment of the LDF Core Strategy: Habitats Regulations Assessment Scoping Report. Scott Wilson (January 2010)

2 Methodology

2.1 Introduction

The HRA has been carried out in the continuing absence of formal central Government guidance, although general EC guidance on HRA does exist². The former Department for Communities and Local Government released a consultation paper on the Appropriate Assessment of Plans in 2006³. As yet, no further formal guidance has emerged. However, Natural England has produced its own internal guidance⁴ as has the RSPB⁵. Both of these have been referred to alongside the guidance outlined in section 1.2.3 in undertaking this HRA.

Figure 2 below outlines the stages of HRA according to current draft CLG 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.

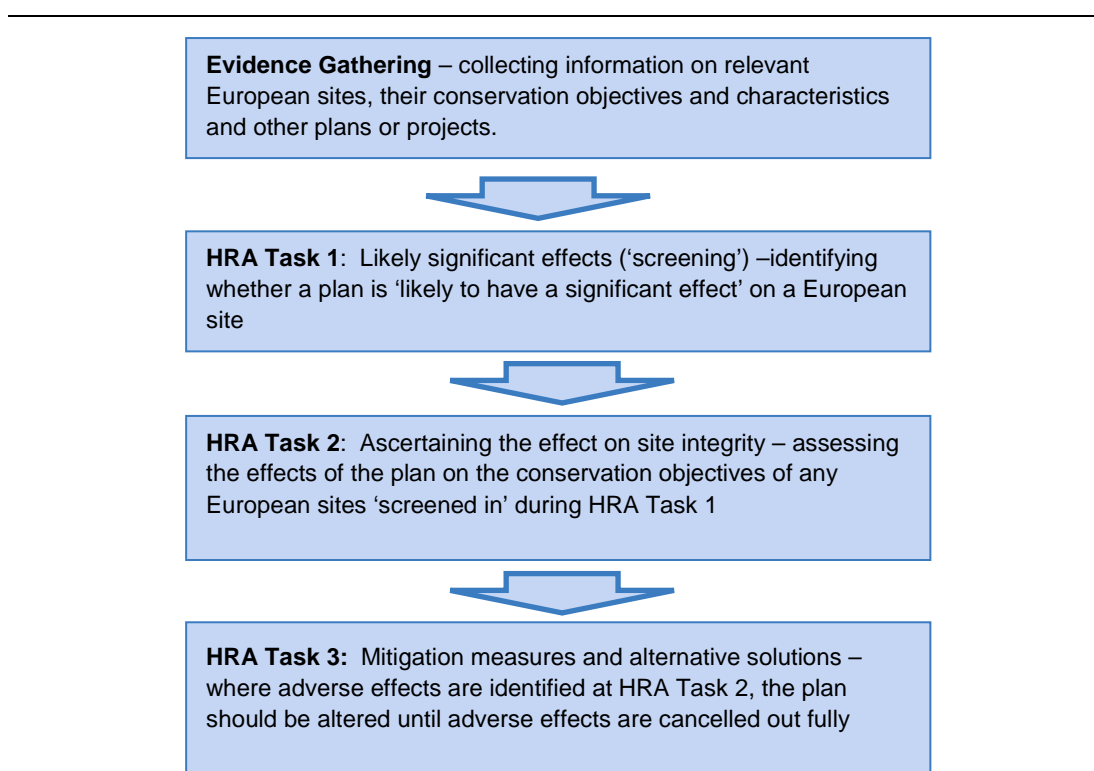


Figure 2 – Four stage approach to Habitat Regulation Assessment

Source: CLG, 2006

² European Commission (2001): Assessment of plans and projects significantly affecting Natura 2000 Sites: Methodological Guidance on the Provisions of Article 6(3) and 6(4) of the Habitats Directive.

³ CLG (2006) Planning for the Protection of European Sites, Consultation Paper

⁴ http://www.ukmpas.org/pdf/practical_guidance/HRGN1.pdf

⁵ Dodd A.M., Cleary B.E., Dawkins J.S., Byron H.J., Palframan L.J. and Williams G.M. (2007)

The Appropriate Assessment of Spatial Plans in England: a guide to why, when and how to do it. The RSPB, Sandy.

2.2 HRA Task 1 - Likely Significant Effects (LSE)

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 Plan, either alone or in combination with other relevant projects and plans, likely to result in a significant effect upon European sites?"

The objective is to 'screen out' those plans and projects that can, without any detailed appraisal, be said to be unlikely to result in significant adverse effects upon European sites, usually because there is no mechanism for an adverse interaction with European sites. This stage is the subject of Chapter 4 of this report

In evaluating significance, URS have relied on our professional judgement as well as the results of previous stakeholder consultation regarding development impacts on the European sites listed in 1.3.3 - 1.3.5.

The level of detail in land use plans concerning developments that will be permitted under the plans will never be sufficient to make a detailed quantification of adverse effects. Therefore, we have again taken a precautionary approach (in the absence of more precise data) assuming as the default position that if an adverse effect cannot be confidently ruled out, avoidance or mitigation measures must be provided. This is in line with the former Department of Communities and Local Government guidance that the level of detail of the assessment, whilst meeting the relevant requirements of the Habitats Regulations, should be 'appropriate' to the level of plan or project that it addresses (see Appendix 1 for a summary of this 'tiering' of assessment).

2.3 Other Plans and Projects That May Act In Combination

The Conservation of Habitats and Species Regulations (2010) require that plans are not considered purely in isolation but 'in combination' with other projects and plans. That analysis has already been undertaken as part of the strategic HRA undertaken for the Local Plan. The draft Site Allocation Development Plan does not seek to deviate from the numbers assessed at that earlier stage. However, some documents that did not exist at that time (such as the South Downs National Park Local Plan) have since emerged. That exercise is therefore updated to ascertain whether its conclusions have changed.

3 Pathways of Impact

3.1 Introduction

In carrying out an HRA it is important to determine the various ways in which land use plans can impact on European sites by following the pathways along which development can be connected with European sites, in some cases many kilometres distant. Briefly defined, pathways are routes by which a change in activity associated with a development can lead to an effect upon a European site.

3.1.1 Other Relevant Supporting Spatial Studies

In determining pathway-receptor potential for impacts of the Chichester Local Plan: Key Policies 2014-2029 development plan document on European sites, the following data sources have been interrogated:

- Chichester District Council – Local Housing Requirements Study (2010);
- Chichester District Council: Strategic Growth Study – Wastewater Treatment Options (2010);
- Solent Waders and Brent Goose Strategy (2010);
- Solent Disturbance and Mitigation Project (Final Report, 2013);
- Greenaway, F. (2004) Advice for the management of flightlines and foraging habitats of the barbastelle bat *Barbastellus barbastellus*. English Nature Research Report, Number 657.
- Greenaway, F. (2008) Barbastelle bats in the Sussex West Weald 1997 – 2008.
- UE Associates. 2009. Visitor Access Patterns on European Sites Surrounding Whitehill and Bordon, East Hampshire. Unpublished report for East Hampshire District Council;
- Surveys undertaken by Footprint Ecology on behalf of the Solent Forum relating to the Solent Disturbance and Mitigation Project
- Arun District Council – visitor surveys for Pagham Harbour SPA;
- Cruickshanks, K. & Liley, D. (2012). Pagham Harbour Visitor Surveys. Unpublished report by Footprint Ecology. Commissioned by Chichester District Council
- The UK Air Pollution Information System (www.apis.ac.uk) and Sussex Air Pollution dataset; and,
- www.magic.gov.uk and its links to SSSI citations and the JNCC website (www.natureonthemap.org.uk).

3.2 Disturbance and Recreational Pressure

Recreational use of a European site has the potential to:

- Prevent appropriate management or exacerbate existing management difficulties;
- Cause damage through erosion and fragmentation;
- Cause eutrophication as a result of dog fouling; and
- Cause disturbance to sensitive species, particularly ground-nesting birds and wintering wildfowl.

Different types of 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.

3.2.1 Mechanical/abrasive damage and nutrient enrichment

Most types of terrestrial European site can be affected by trampling, which in turn causes soil compaction and erosion. Walkers with dogs contribute to pressure on sites through nutrient enrichment via dog fouling and also have potential to cause greater disturbance to fauna as dogs are less likely to keep to marked footpaths and move more erratically. Motorcycle scrambling and off-road vehicle use can cause serious erosion, as well as disturbance to sensitive species.

There have been several papers published that empirically demonstrate that damage to vegetation in woodlands and other habitats can be caused by vehicles, walkers, horses and cyclists:

- Wilson & Seney (1994)⁶ examined the degree of track erosion caused by hikers, motorcycles, horses and cyclists from 108 plots along tracks in the Gallatin National Forest, Montana. Although the results proved difficult to interpret, it was concluded that horses and hikers disturbed more sediment on wet tracks, and therefore caused more erosion, than motorcycles and bicycles.
- Cole et al (1995a, b)⁷ conducted experimental off-track trampling in 18 closed forest, dwarf scrub and meadow and grassland communities (each trampled between 0 – 500 times) over five mountain regions in the US. Vegetation cover was assessed two weeks and one year after trampling, and an inverse relationship with trampling intensity was discovered, although this relationship was weaker after one year than two weeks indicating some recovery of the vegetation. Differences in plant morphological characteristics were found to explain more variation in response between different vegetation types than soil and topographic factors. Low-growing, mat-forming grasses regained their cover best after two weeks and were considered most resistant to trampling, while tall forbs (non-woody vascular plants other than grasses, sedges, rushes and ferns) were considered least resistant. Cover of hemicryptophytes and geophytes (plants with buds below the soil surface) was heavily reduced after two weeks, but had recovered well after one year and as such these were considered most resilient to trampling. Chamaephytes (plants with buds above the soil surface) were least resilient to trampling. It was concluded that these would be the least tolerant of a regular cycle of disturbance.
- Cole (1995c)⁸ conducted a follow-up study (in 4 vegetation types) in which shoe type (trainers or walking boots) and trampler weight were varied. Although immediate damage was greater with walking boots, there was no significant difference after one year. Heavier trampers caused a greater reduction in vegetation height than lighter trampers, but there was no difference in effect on cover.
- Cole & Spildie (1998)⁹ experimentally compared the effects of off-track trampling by hiker and horse (at two intensities – 25 and 150 passes) in two woodland vegetation types (one with an erect forb understorey and one with a low shrub understorey). Horse traffic was found to cause the largest reduction in vegetation cover. The forb-dominated vegetation suffered greatest disturbance, but recovered rapidly. Higher trampling intensities caused more disturbance.

The total volume of dog faeces deposited on sites can be surprisingly large. For example, at Burnham Beeches National Nature Reserve over one year, Barnard¹⁰ estimated the total amounts of urine and faeces from dogs as 30,000 litres and 60 tonnes respectively. Nutrient-poor habitats such as heathland are particularly sensitive to the fertilising effect of inputs of phosphates, nitrogen and potassium from dog faeces¹¹.

Areas of dune habitat that may be sensitive to trampling and erosion are present within Solent Maritime SAC, and Chichester and Langstone Harbours SPA and Ramsar sites at the entrance to Chichester Harbour. Additionally, visitors from the District may choose to visit European sites outside of the area covered by Chichester's Local Plan that may be sensitive to such impacts. Direct mechanical trampling and nutrient enrichment are both more subtle and reversible effects than disturbance of bird populations.

3.2.2 Disturbance

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 feeding¹². Disturbance therefore risks increasing energetic output while reducing energetic input, which can adversely affect the

⁶ Wilson, J.P. & J.P. Seney. 1994. Erosional impact of hikers, horses, motorcycles and off road bicycles on mountain trails in Montana. *Mountain Research and Development* 14:77-88

⁷ Cole, D.N. 1995a. Experimental trampling of vegetation. I. Relationship between trampling intensity and vegetation response. *Journal of Applied Ecology* 32: 203-214

Cole, D.N. 1995b. Experimental trampling of vegetation. II. Predictors of resistance and resilience. *Journal of Applied Ecology* 32: 215-224

⁸ Cole, D.N. (1995c) Recreational trampling experiments: effects of trampler weight and shoe type. Research Note INT-RN-425. U.S. Forest Service, Intermountain Research Station, Utah.

⁹ Cole, D.N., Spildie, D.R. (1998) Hiker, horse and llama trampling effects on native vegetation in Montana, USA. *Journal of Environmental Management* 53: 61-71

¹⁰ Barnard, A. (2003) Getting the Facts - Dog Walking and Visitor Number Surveys at Burnham Beeches and their Implications for the Management Process. *Countryside Recreation*, 11, 16 - 19

¹¹ Shaw, P.J.A., K. Lankey and S.A. Hollingham (1995) – Impacts of trampling and dog fouling on vegetation and soil conditions on Headley Heath. *The London Naturalist*, 74, 77-82.

¹² Riddington, R. et al. 1996. The impact of disturbance on the behaviour and energy budgets of Brent geese. *Bird Study* 43:269-279

'condition' and ultimately survival of the birds. In addition, displacement of birds from one feeding site to others can increase the pressure on the resources available within the remaining sites, as they have to sustain a greater number of birds¹³.

A number of studies have shown that birds are affected more by dogs and people with dogs than by people alone, with birds flushing more readily, more frequently, at greater distances and for longer¹⁴. In addition, dogs, rather than people, tend to be the cause of many management difficulties, notably by worrying grazing animals, and can cause eutrophication near paths. Nutrient-poor habitats such as heathland are particularly sensitive to the fertilising effect of inputs of phosphates, nitrogen and potassium from dog faeces¹⁵.

However the outcomes of many of these studies need to be treated with care. For instance, the effect of disturbance is not necessarily correlated with the impact of disturbance, i.e. the most easily disturbed species are not necessarily those that will suffer the greatest impacts. It has been shown that, in some cases, the most easily disturbed birds simply move to other feeding sites, whilst others may remain (possibly due to an absence of alternative sites) and thus suffer greater impacts on their population¹⁶. A literature review undertaken for the RSPB¹⁷ also urges caution when extrapolating the results of one disturbance study because responses differ between species and the response of one species may differ according to local environmental conditions. These facts have to be taken into account when attempting to predict the impacts of future recreational pressure on European sites.

Disturbing activities are on a continuum. The most disturbing activities are likely to be those that involve irregular, infrequent, unpredictable loud noise events, movement or vibration of long duration. Birds are least likely to be disturbed by activities that involve regular, frequent, predictable, quiet patterns of sound or movement or minimal vibration. The further any activity is from the birds, the less likely it is to result in disturbance.

The factors that influence a species response to a disturbance are numerous, but the three key factors are species sensitivity, proximity of disturbance sources and timing/duration of the potentially disturbing activity.

It should be emphasised that recreational use is not inevitably a problem. Many European sites are also nature reserves managed for conservation and public appreciation of nature. At such sites, access is encouraged and resources are available to ensure that recreational use is managed appropriately.

Where increased recreational use is predicted to cause adverse impacts on a site, avoidance and mitigation should be considered. Avoidance of recreational impacts at European sites involves location of new development away from such sites; Local Development Frameworks (and other strategic plans) provide the mechanism for this. Where avoidance is not possible, mitigation will usually involve a mix of access management, habitat management and provision of alternative recreational space.

- *Access management* – restricting access to some or all of a European site - is not usually within the remit of the District Council and restriction of access may contravene a range of Government policies on access to open space, and Government objectives for increasing exercise, improving health etc. However, active management of access may be possible, for example as practised on nature reserves.
- *Habitat management* is not within the direct remit of the Council. However the Council can help to set a framework for improved habitat management by promoting cross-authority collaboration and S106 funding of habitat management. In the case of the Chichester, opportunities for this are limited since, according to Natural England, the areas of European designated habitat in the District are already in favourable condition or recovering.
- *Provision of alternative recreational space* can help to attract recreational users away from sensitive European sites, and reduce pressure on the sites. For example, some species for which European sites have been designated are particularly sensitive to dogs, and many dog walkers may be happy to be

¹³ Gill, J.A., Sutherland, W.J. & Norris, K. 1998. The consequences of human disturbance for estuarine birds. *RSPB Conservation Review* 12: 67-72

¹⁴ Underhill-Day, J.C. (2005). A literature review of urban effects on lowland heaths and their wildlife. *English Nature Research reports*, No 623. Peterborough: English Nature (now Natural England)

¹⁵ Shaw, P.J.A., K. Lankey and S.A. Hollingham (1995) – Impacts of trampling and dog fouling on vegetation and soil conditions on Headley Heath. *The London Naturalist*, **74**, 77-82.

¹⁶ Gill et al. (2001) - Why behavioural responses may not reflect the population consequences of human disturbance. *Biological Conservation*, **97**, 265-268

¹⁷ Woodfield & Langston (2004) - Literature review on the impact on bird population of disturbance due to human access on foot. *RSPB research report* No. 9.

diverted to other, less sensitive, sites. However the location and type of alternative space must be attractive for users to be effective.

Chichester and Langstone Harbours SPA and Ramsar, and Pagham Harbour SPA and Ramsar lie within Chichester Local Plan area. There are also several SPA and Ramsar designations beyond the area covered by the Chichester Local Plan that residents may choose to visit such as Wealden Heaths Phase 2 SPA. All are sensitive ecologically through disturbance to the species for which the SPAs and Ramsar sites are designated.

The Solent Forum undertook a project to examine bird disturbance and possible mitigation in the Solent area. A Phase I 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 Project¹⁸ identified that survival rates for curlew and a variety of other bird species were predicted to decrease under any increase in visitor rates.

Phase III of the Solent Disturbance and Mitigation Project¹⁹ has assessed associated mitigation measures on the number of people visiting the Solent, and the associated impact on the survival rates of shorebirds. They consider that appropriate measures could include a delivery officer, wardening team and coastal dog project, followed by work on reviews and codes of conduct. A series of site specific and more local projects could then follow, to be phased with development. The outcome of the Solent Disturbance and Mitigation Project has been that all new residential development within 5.6km of the Solent European sites should make a financial contribution to the delivery of access management measures. That contribution is currently set at £173 per dwelling, but can be subject to change.

Medmerry Managed Realignment scheme (mitigation for habitat loss associated with the Solent European sites) is located in close proximity to Pagham Harbour SPA/ Ramsar site. Once habitats have become fully established, it is expected that the site will support features for which the site can be designated and incorporated into Pagham Harbour SPA/ Ramsar site. As such, the entire Pagham Harbour site, including the Medmerry extension will be subject to the same strategic level mitigation as afforded to the other Solent European sites (even though it is located geographically in close proximity to Pagham Harbour SPA/ Ramsar sites). Any residential development within 5.6km of the SPA/ Ramsar site will be required to make financial contributions per dwelling towards the Solent Disturbance and Mitigation Project and/ or by providing measures associated with development designed to avoid or mitigate any LSE.

Chichester District Council commissioned Footprint Ecology to undertake a visitor survey on those parts of the Pagham Harbour SPA/Ramsar site that fell within the Local Plan area²⁰. 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, contributing 48% of all winter visitors and 66% of all summer visitors. Of these three settlements, Selsey is responsible for the majority. 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 51 (Development and Disturbance of Birds in Pagham Harbour Special Protection Area) 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.

Whilst Wealden Heaths Phase 2 SPA is located outside Chichester District, studies undertaken for the East Hampshire Joint Core Strategy, Waverley Local Plan and emerging South Downs National Park Local Plan have identified that residential development within 5km of the site has potential to impact upon designated features. The effects of increased recreational pressure on the Wealden Heaths Phase 2 SPA due to the planned increase in housing within 5km of the SPA were investigated and discussed in detail at the time the East Hampshire/South Downs National Park Local Plan Joint Core Strategy was prepared and is documented in its various iterations of HRA, with which Natural England concurred. It is also discussed in the HRA for the emerging South Downs

¹⁸ 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

¹⁹ Liley, D. & Tyldesley, D. (2013). Solent Disturbance and Mitigation Project: Phase III. Towards an Avoidance and Mitigation Strategy. Unpublished report. Footprint Ecology/David Tyldesley & Associates

²⁰ Cruickshanks, K. & Liley, D. (2012). Pagham Harbour Visitor Surveys. Unpublished report by Footprint Ecology. Commissioned by Chichester District Council

National Park Local Plan and (to a reduced extent) in the East Hampshire Housing and Employment Allocations document. The Joint Core Strategy HRA concluded that, based on the levels of net new residential development expected within 5km of the SPA over the Strategy period (3,824 net new dwellings including windfalls but excluding existing planning permissions) no strategic mitigation solution was required provided that Whitehill-Bordon and Lowsley Farm (developments in East Hampshire district responsible for the vast majority of new housing within the 5km zone) mitigated for their impacts at the project level. Joint Core Strategy policy (developed in agreement with Natural England and considered sound by the planning inspector at Examination) treats other new housing developments within 5km on a case-by-case basis in determining whether mitigation is required, with the decision as to the need for mitigation being based upon consideration of the scale of development and its proximity to the SPA.

3.3 Atmospheric Pollution

The main pollutants of concern for European sites are oxides of nitrogen (NO_x), ammonia (NH₃) and sulphur dioxide (SO₂). NO_x can have a directly toxic effect upon vegetation. In addition, greater NO_x or ammonia concentrations within the atmosphere will lead to greater rates of nitrogen deposition to soils. An increase in the deposition of nitrogen from the atmosphere to soils is generally regarded to lead to an increase in soil fertility, which can have a serious deleterious effect on the quality of semi-natural, nitrogen-limited terrestrial habitats. 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 not significant"²¹.

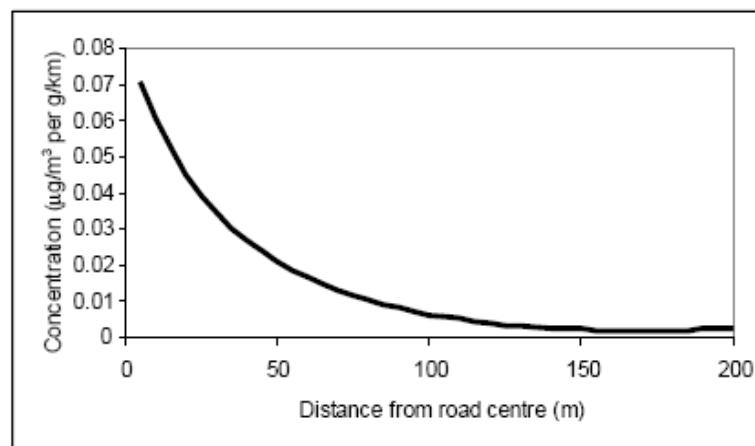


Figure 3. Traffic contribution to concentrations of pollutants at different distances from a road (Source: DfT)

This issue of air quality impacts from road traffic across Chichester District was investigated as part of the Local Plan HRA. It was considered that the scale of traffic increases due to the Local Plan fell below the threshold for significance on all roads that lay within 200m of sensitive European sites. Since it is primarily a District-wide matter for consideration the issue is not re-investigated in detail in this report. Natural England have confirmed in discussion of the draft version of this report that provided the quantum and distribution of development hasn't changed significantly since the Local Plan, this is an acceptable approach.

3.4 Water Abstraction

The South-East has been identified as generally being an area of high water stress. The issue of water resource demands associated with an increase in the Chichester District population was investigated in full for the Local Plan HRA. It was concluded that no likely significant effect on European sites would arise. Since it is a strategic district-wide matter, rather than a site specific issue, it is not necessary to reinvestigate it as part of the Site Allocation.

²¹ <http://www.dft.gov.uk/webtag/documents/expert/unit3.3.3.php#013>; accessed 13/04/12

3.5 Water Quality

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. Sewage and industrial effluent discharges can contribute to increased nutrients on European sites leading to unfavourable conditions. In addition, diffuse pollution, partly from urban run-off has been identified during an Environment Agency Review of Consents process, as being a major factor in causing unfavourable condition of European sites.

For sewage treatment works close to capacity, further development may increase the risk of effluent escape into aquatic environments. In many urban areas, sewage treatment and surface water drainage systems are combined, and therefore a predicted increase in flood and storm events could increase pollution risk. It was identified in the Local Plan HRA that Chichester (Apuldram) WwTW was effectively constrained from accommodating further development. The solution identified was to upgrade Tangmere WwTW to provide expanded capacity to accommodate an additional 3,000 homes; this would enable strategic growth in the south of the Local Plan area. It was identified in Paragraph 4.12 of the Local Plan that *'For this reason, the proposed strategic allocation in the Chichester / Tangmere area are not expected to be deliverable until after 2019. To compensate for this, the Plan strategy seeks the early release of housing land in areas where wastewater capacity is available, in particular at the settlement hubs of Southbourne, Selsey and East Wittering/ Bracklesham'*. Since wastewater treatment is a strategic issue and a solution has been identified, it is not necessary to investigate it as part of the Site Allocation HRA. However, other potential water quality pathways (such as surface water runoff) are considered. Studies by the Environment Agency under the Review of Consents process indicated that sewage discharges have not had a significant adverse effect on the integrity of the Pagham Harbour SPA/Ramsar site and that Wastewater Treatment Works have capacity to accommodate new homes without a significant adverse effect on water quality. This therefore does not need to be considered further.

3.6 Coastal Squeeze

Rising sea levels can be expected to cause intertidal habitats (principally saltmarsh and mudflats) to migrate landwards. However, in built-up areas, such landward retreat is often rendered impossible due the presence of the sea wall and other flood defences.

In addition, development frequently takes place immediately behind the sea wall, so that the flood defences 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.

The North Solent 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'. An HRA of the draft plan²² 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.

The South Downs SMP for areas fronting Pagham Harbour identifies a mix of Hold the Line and Managed Realignment strategies. The SMP states that Managed Realignment approach is being adopted to maintain the integrity of the Harbour with its nature conservation value as a primary consideration.

It was concluded in the HRA of the Local Plan that it 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. As such, this pathway does not require further investigation in the Site Allocation document.

²² [http://www.northsolentsmp.co.uk/media/adobe/o/2/Appendix_J_-_Appropriate_Assessment_\(draft\).pdf](http://www.northsolentsmp.co.uk/media/adobe/o/2/Appendix_J_-_Appropriate_Assessment_(draft).pdf)

3.7 Loss of Habitats Outside of European Sites

European sites are designated on the basis of key habitats and species. The latter are often mobile beyond the designated site boundary and it is possible that development in the wider area may have an impact on the species populations for which the European sites are designated.

Ebernoe Common SAC and The Mens SAC are both designated for populations of barbastelle bats. The barbastelles forage widely outside of these SACs, and studies carried out over the past fifteen years give detailed information on flight lines^{23 24}.

These reports have identified that:

- The barbastelles of The Mens SAC forage to the east of the SAC, principally on the floodplain of the River Arun from close to Horsham in the north to Parham in the south. They also cross to the Adur floodplain. In some cases the bats travelled up to 7km to visit foraging areas;
- The barbastelles at Ebernoe Common SAC had flightlines that followed watercourses, particularly the River Kird, and woodland cover for distances of typically 5km. Flightlines outside the SAC are particularly to the south (the Petworth and Tillington area) but also to the west, north and east;
- Ebernoe Common SAC is also designated for a population of Bechstein's bat. Those radio-tracking projects which have been implemented for the species have established that the tracked individuals generally remained within approximately 1.5 km of their roosts²⁵. These distances do fit with those identified from radio-tracking of Bechstein's that has been undertaken at Ebernoe Common SAC from 2001, which identified that the maximum distance travelled by a tagged Bechstein's bat to its foraging area was 1,407m, with the average 735.7m²⁶.

These SACs require inclusion in the screening stage of this HRA since severance of bat flightlines could theoretically occur through new development, and this could have an adverse effect on the SAC designation.

Chichester and Langstone Harbours SPA and Ramsar sites And Pagham Harbour SPA & Ramsar sites are notified partly for their over-wintering populations of Brent geese. However, studies²⁷ 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.

3.8 Summary

In summary, the focus of this report is on the following pathways of impact:

- Recreational pressure – specifically in terms of whether proposed housing sites are located within 5.6km of the Chichester and Langstone Harbours SPA/Ramsar site or the Medmerry realignment or 3.5km of Pagham Harbour. The proposed allocation of 10 dwellings in Camelsdale is 2km from the Wealden Heaths Phase 2 SPA so this will also be considered;
- Other forms of disturbance such as noise or lighting;
- Water quality – in terms of whether individual sites present impact pathways (such as surface water runoff) to European sites; and
- Loss of supporting habitat for Ebernoe Common SAC, The Mens SAC, Chichester and Langstone Harbours SPA/Ramsar site or Pagham Harbour SPA.

²³ Greenaway, F. (2004) Advice for the management of flightlines and foraging habitats of the barbastelle bat *Barbastellus barbastellus*. *English Nature Research Report*, Number 657.

²⁴ Greenaway, F. (2008) *Barbastelle bats in the Sussex West Weald 1997 - 2008*

²⁵ Cited in: Schofield H & Morris C. 2000. 'Ranging Behaviour and Habitat Preferences of Female Bechstein's Bats in Summer'. Vincent Wildlife Trust

²⁶ Fitzsimmons P, Hill D, Greenaway F. 2002. Patterns of habitat use by female Bechstein's bats (*Myotis bechsteini*) from a maternity colony in a British woodland

²⁷ Solent Waders and Brent Goose Strategy. Solent Waders and Brent Goose Strategy Steering Group (2010).

4 Chichester and Langstone Harbours SPA and Ramsar site/Solent Maritime SAC²⁸

4.1 Introduction

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.

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.

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.

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.

4.2 Features of European Interest²⁹

4.2.1 Chichester and Langstone Harbours SPA

Chichester and Langstone 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: During the breeding season:

- Little Tern *Sterna albifrons*: 4.2% of the breeding population in Great Britain (5-year mean, 1992-1996);
- 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).

Over winter:

- Bar-tailed Godwit *Limosa lapponica*: 3.2% of the wintering population in Great Britain (5-year peak mean 1991/92 - 1995/96).

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:

Over winter:

- 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);

²⁸ 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

²⁹ Features of European Interest are the features for which a European site is selected. They include habitats listed on Annex 1 of the Habitats Directive, species listed on Annex II of the EC Habitats Directive and populations of bird species for which a site is designated under the EC Birds Directive.

- 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).

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 *Limosa lapponica*, Dark-bellied Brent Goose, Ringed Plover, Grey Plover, Dunlin, Redshank, Shelduck, Curlew, Teal, Pintail, Shoveler, Red-breasted Merganser, Sanderling and Turnstone.

4.2.2 Chichester and Langstone Harbours Ramsar

Chichester and Langstone Harbours Ramsar site qualifies under the following Ramsar criteria.

Table 4-1. 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.	<p>Species with peak counts in spring/autumn:</p> <p>Ringed plover <i>Charadrius hiaticula</i>: 853 individuals, representing an average of 1.1% of the population (5-year peak mean 1998/99 – 2002/03).</p> <p>Black-tailed godwit <i>Limosa limosa islandica</i>: 906 individuals, representing an average of 2.5% of the population (5-year peak mean 1998/99 – 2002/03).</p> <p>Common redshank <i>Tringa totanus totanus</i>: 2577 individuals, representing an average of 1% of the population (5-year peak mean 1998/99 – 2002/03).</p> <p>Species with peak counts in winter:</p> <p>Dark-bellied brent goose <i>Branta bernicla bernicla</i>:</p>

Ramsar criterion	Description of Criterion	Chichester and Langstone Harbours
		<p>12,987 individuals, representing an average of 6% of the populations (5-year peak mean 1998/99 – 2002/03).</p> <p>Common shelduck <i>Tadorna tadorna</i>: 1,468 individuals, representing an average of 1.8% of the GB population (5-year peak mean 1998/99 – 2002/03).</p> <p>Grey plover <i>Pluvialis squatarola</i>: 3,043 individuals, representing an average of 1.2% of the population (5-year peak mean 1998/99 – 2002/03).</p> <p>Dunlin <i>Calidris alpina alpina</i>: 33,436 individuals, representing an average of 2.5% of the population (5-year peak mean 1998/99 – 2002/03).</p> <p>Species regularly supported during the breeding season:</p> <p>Little tern <i>Sterna albifrons albifrons</i>: 130 apparently occupied nests, representing an average of 1.1% of the breeding populations (Seabird 2000 census)³⁰</p>

4.2.3 Solent Maritime SAC

Solent Maritime qualifies as a SAC for both habitats and species. Firstly, the site contains the following habitats Directive Annex 1 habitats:

- Estuaries
- Cord-grass swards (*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 outside the reach of waves (perennial vegetation of stony banks)
- Glasswort and other annuals colonising mud and sand (*Salicornia* and other annuals colonising mud and sand)
- Shifting dunes with marram (shifting dunes along the shoreline with *Ammophila arenaria* 'white dunes')

Secondly, the site also qualifies for the following Habitats Directive Annex II species:

- Desmoulin's whorl snail (*Vertigo moulinsiana*).

4.3 Historic Trends and Current Conditions

Langstone Harbour is fringed by urban and industrial development, whereas Chichester is surrounded mainly by high grade farmland. The site is subjected to significant recreational pressures, especially during summer months.

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

³⁰ Species identified subsequent to designation for future possible consideration.

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.

The Environment Agency Review of Consents and the HRA of the South East RSS 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.

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 the figures were 9 and 91% respectively.

4.4 Key Environmental Conditions

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

4.5 Potential effects of the Plan

Six potential impacts of the Chichester Local Plan: Key Policies Submission document upon the SPA and Ramsar site have been identified; however coastal squeeze and air quality have been previously discussed at a strategic level and no likely significant effects are anticipated and therefore will not be considered further within this section. Impact pathways requiring further consideration:

- Urbanisation;
- Recreational pressure;
- Loss of off-site feeding and roosting habitats for bird species;
- Water quality from sources other than sewage effluent; and
- Disturbance from construction activities

These potential impacts have been assessed by two proposed development types; housing development and employment sites as outlined below.

4.5.1 Proposed housing sites

The following potential housing development sites were proposed. All sites are listed below in Table 4.2 and Figures 4a and 4b, with regard to potential effects at Chichester and Langstone Harbours SPA and Ramsar site and the Solent Maritime SAC discussed in the final column. Sites identified in green do not contain realistic impact pathways that could result in likely significant effects upon an internationally designated site. Sites identified in orange have potential to contain impact pathways that could result in likely significant effects upon an internationally designated site. For these sites, the report also makes recommendations for avoidance and/ or

mitigation measures to ensure likely significant effects upon the internationally designated sites do not occur. Sites included in the Proposed Submission DPD are identified in **bold** and their policy number provided.

Table 4-2 Chichester housing local site screening, for likely significant effects at Chichester and Langstone Harbours SPA and Ramsar site and Solent Maritime SAC.

Site name	Site code	Impact pathways	Likely significant effects HRA screening
Land south of A27 (opposite Terminus Road)	CC08209B	Recreational pressure	The site lies well within 5.6km 'zone of influence' of the SPA and Ramsar and therefore is likely to result in an increase in recreational pressure upon the European designated sites. In order to mitigate for this additional recreational pressure, developer contributions per new dwelling to the Solent Disturbance and Mitigation Project through the S106 agreements and/or CIL will be necessary.
		Urbanisation and surface water quality	The site boundary currently encompasses part of the SPA/Ramsar site. It is assumed that no development is actually proposed here, but careful design will be required to ensure that a suitable buffer is included between built development and the SPA/Ramsar site and SAC in order to avoid a sense of encroachment on the European site which is otherwise largely surrounded by open habitat. In addition, the proximity of the site to the SPA/Ramsar site raises the possibility of impacts from construction noise, construction and operational lighting and surface water runoff into the SPA/Ramsar site. All of these are resolvable through either careful design or working practices but will need to be considered in detail in any planning application.
		Loss of off-site feeding and roosting habitats for bird species	Given its proximity immediately adjacent to the SPA/Ramsar site the site also has the potential to support foraging or roosting over-wintering Brent geese and wader species, which have been found to utilise habitats outside of the Solent European site boundaries. The majority of the feeding sites are amenity/recreation grassland or arable land. Therefore the loss of this habitat could result in the loss of potential feeding sites for these species. It is therefore recommended that wintering bird surveys are conducted to determine the use of the site by bird species. If it is determined that the site is significant as a roosting/feeding site for wintering waders or Brent goose then mitigation will be required to ensure no net loss of such habitat.
Land east of The Street	BX0806	Recreational pressure	These sites lie beyond 5.6km from the Solent European sites. Recreational pressure associated with the proposed residential development of these land parcels is not anticipated to result in likely significant effects upon the Solent European sites.
Land west of Priors Acre	BX0804		
Land north of Boxgrove Primary School	BX0802		

Site name	Site code	Impact pathways	Likely significant effects HRA screening
Land south of Crouch Cross Lane	BX0803	Loss of off-site feeding and roosting habitats for bird species	It is considered unlikely that these sites would support significant numbers of over-wintering population of Brent geese and wader species which have been found to utilise habitats outside of the Solent European site boundaries. This is primarily due to the significant distance from the SPA. Therefore the loss of this habitat is unlikely to impact upon the availability of off-site feeding and roosting habitats for bird species. There is also no pathway for surface water quality or construction disturbance impacts.
Land west of The Street (Policy BX1)	BX0805		
Land north of Boxgrove Priory	BX1409		
Land east of The Priory	BX1410		
Land east of Taylor's lane	BO08188	Recreational pressure	These sites lie well within the 5.6km 'zone of influence' of the SPA and Ramsar and are therefore likely to result in an increase in recreational pressure upon the European designated sites. In order to mitigate for this additional recreational pressure, developer contributions per new dwelling to the Solent Disturbance and Mitigation Project through the S106 agreements and/or CIL will be necessary.
Land at Highgrove Farm (Policy BO1)	BB08195	Loss of off-site feeding and roosting habitat for bird species	
Swan Field	BB08197		
Land west of Delling Lane	BO1406		
		Water quality	Due to their proximity to the internationally designated sites (c. 200m for BO8188 and BO1406, 600m for BB08197 and 1km for BB08195) and their size (2ha allocated for development at BB08195, 7ha for BO1406 and over 10 ha for the other sites), these proposed development sites have potential to act as supporting habitat beyond the boundaries of the designated site for foraging or roosting over-wintering populations of Brent geese and wader species associated with the Solent European designated sites. The majority of the foraging and roosting sites are amenity/recreation grassland or arable sites. The loss of these habitats could result in the loss of potential foraging and roosting sites for these species. The development sites all consist of arable fields, although some lack sight lines to the designated site. It is recommended that a Phase 1 habitat survey is conducted to determine the suitability of the habitat within each site to support Brent geese and wader species. If the habitat is considered to be suitable wintering bird surveys will need to be conducted to determine the use of the site by bird species. If it is determined that any site is significant as a roosting/feeding site for wintering waders or Brent goose then mitigation will be required to ensure no net loss of such habitat.
		Direct disturbance	For Sites BO08188 and BO1406, there are also watercourses or field drain along the edge of the land parcel which appear to drain into the SPA/Ramsar site. This presents a pathway for surface water quality impacts that would need to be

Site name	Site code	Impact pathways	Likely significant effects HRA screening
			<p>managed through careful design and mitigation at the planning application stage.</p> <p>Parts of site BO1406 lie c. 200m from the designated sites. Consideration will need to be given in any planning application to any need for careful timing of construction works to avoid significant disturbance of SPA birds, although it is recognised that there is a thick belt of trees which will visually screen construction works from the SPA/Ramsar site. This should be achievable with careful management.</p>
<p>Land at Crede Farm</p> <p>The French Gardens</p> <p>Bullock Barn</p> <p>Cricket Ground (former)</p> <p>Land south of the Old Bridge</p> <p>Railway Arch</p>	<p>BO08189</p> <p>BB08196</p> <p>BB08198</p> <p>BB08199</p> <p>BB08200</p> <p>BB08204</p>	<p>Recreational pressure</p>	<p>These sites lie well within the 5.6km 'zone of influence' of the SPA and Ramsar and are therefore likely to result in an increase in recreational pressure upon the European designated sites. In order to mitigate for this additional recreational pressure, developer contributions per new dwelling to the Solent Disturbance and Mitigation Project through the S106 agreements and/or CIL will be necessary.</p>
<p>Land west of Frederick Road</p>	<p>CC08260</p>	<p>Recreational pressure</p> <p>Loss of off-site feeding and roosting habitats for bird species</p>	<p>The site lies within the 5.6km 'zone of influence' of the SPA and Ramsar and therefore is likely to result in an increase in recreational pressure upon the European designated sites. In order to mitigate for this additional recreational pressure, developer contributions per new dwelling to the Solent Disturbance and Mitigation Project through the S106 agreements and/or CIL will be necessary.</p> <p>Due to its proximity to the internationally designated sites (c. 600m) and its size (c. 1ha), this proposed development site has potential to act as supporting habitat beyond the boundaries of the designated site for foraging or roosting over-wintering populations of Brent geese and wader species associated with the Solent European designated sites. The majority of the foraging and roosting sites are amenity/recreation grassland or arable sites. The loss of these habitats could result in the loss of potential foraging and roosting sites for these species. The site is sheltered and lacks sight lines to the designated site. In addition, from reviewing aerial photography, there appears to be well worn pathways within the site, indicating the site is subject to levels of disturbance. The site is considered to have low potential to support Brent geese and wader species; however, acting on the precautionary principle it is recommended that a Phase 1 habitat survey is conducted to determine</p>

Site name	Site code	Impact pathways	Likely significant effects HRA screening
			<p>the suitability of the habitat within the site to support Brent geese and wader species. If the habitat is considered to be suitable wintering bird surveys will be conducted to determine the use of the site by bird species. If it is determined that the site is significant as a roosting/feeding site for wintering waders or Brent goose then mitigation will be required to ensure no net loss of such habitat.</p> <p>There are no pathways for surface water quality or construction disturbance impacts.</p>
Land Adjacent Tesco Petrol Station, Fishbourne Road (Policy CC1)	-	<p>Recreational pressure</p> <p>Loss of off-site feeding and roosting habitats for bird species</p>	<p>The site lies within the 5.6km 'zone of influence' of the SPA and Ramsar and therefore is likely to result in an increase in recreational pressure upon the European designated sites. In order to mitigate for this additional recreational pressure, developer contributions per new dwelling to the Solent Disturbance and Mitigation Project through the S106 agreements and/or CIL will be necessary.</p> <p>Although the site lies within 2km of the SPA/Ramsar site it is sufficiently small and disturbed that it would not constitute supporting habitat.</p>
Hammonds	-	Recreational pressure	<p>These sites lie within the 5.6km 'zone of influence' of the SPA and Ramsar and therefore are likely to result in an increase in recreational pressure upon the European designated sites. In order to mitigate for this additional recreational pressure, developer contributions per new dwelling to the Solent Disturbance and Mitigation Project through the S106 agreements and/or CIL will be necessary.</p> <p>The sites are sufficiently distant from the SPA that given the small size and disturbed urban location they would not constitute supporting habitat for the SPA/Ramsar site.</p>
Bartholomews, Bognor Road (Policy CC2)	-		
117 The Hornet (Policy CC3)	-		
Shopwyke Strategic Development Location (Shopwyke Lakes; Policy CC4)	CC08213	Loss of off-site feeding and roosting habitats for bird species	
Land north of 10 Oak View	HN08236	Recreational pressure	<p>These sites lie within the 5.6km 'zone of influence' of the SPA and Ramsar (at their closest 1.8km) and therefore are likely to result in an increase in recreational pressure upon the European designated sites. In order to mitigate for this additional recreational pressure, developer contributions per new dwelling to the Solent Disturbance and Mitigation Project through the S106 agreements and/or CIL will be necessary.</p> <p>Due to their proximity (c. 2km or closer) to the internationally designated sites and their physical size, these proposed development sites have potential to act as supporting habitat beyond the boundaries of the designated site for foraging or roosting over-wintering populations of Brent geese and wader species associated with the Solent European designated sites The</p>
Land at Bridge Farm	HN1431	Loss of off-site feeding and roosting habitats for bird species	

Site name	Site code	Impact pathways	Likely significant effects HRA screening
			<p>majority of the feeding sites are amenity/recreation grassland or arable sites. Therefore the loss of this habitat could result in the loss of potential feeding sites for these species. It is recommended that a Phase 1 habitat survey is conducted to determine the suitability of the habitat within the site to support Brent geese and wader species. If the habitat is considered to be suitable wintering bird surveys will be conducted to determine the use of the site by bird species. If it is determined that the site is significant as a roosting/feeding site for wintering waders or Brent goose then mitigation will be required to ensure no net loss of such habitat.</p> <p>There is no pathway for surface water quality or construction disturbance impacts.</p>
Land south of Meadow Close	HN08285	Recreational pressure	<p>These sites lie within the 5.6km 'zone of influence' of the SPA and Ramsar (at their closest 1.8km) and therefore are likely to result in an increase in recreational pressure upon the European designated sites. In order to mitigate for this additional recreational pressure, developer contributions per new dwelling to the Solent Disturbance and Mitigation Project through the S106 agreements and/or CIL will be necessary.</p> <p>All of these sites are situated over 2km from the SPA/Ramsar site and are either physically small or situated beyond separating settlements. It is therefore considered unlikely that they are significant as supporting habitat for the SPA/Ramsar site.</p> <p>There is also no pathway for surface water quality or construction disturbance impacts.</p>
Land east of Meadow Close	HN08286		
Land at the corner of Church Lane and Main Road	HN08287	Loss of off-site feeding and roosting habitats for bird species	
Land south of Reedbridge Farm (Policy HN1)	HN08235		
Land south of Carmelite Convent	HN08234		
Land east of Foxbridge Drive	HN08245		
Reedbridge Farm	HN08233		
Hunston Dairy Farm	HN08288		
Land at Chrislee	HN1430		
Land at Farmfield Nursery	HN1432		
Land north of Summersdale Court	CC08255	Recreational pressure	<p>The sites lie within the 5.6km 'zone of influence' of the SPA and Ramsar and therefore are likely to result in an increase in recreational pressure upon the European designated sites. In order to mitigate for this additional recreational pressure, developer contributions per new dwelling to the Solent Disturbance and Mitigation Project through the S106 agreements and/or CIL will be</p>
Land north of Marchwood	CC08204		
Maddox Wood, Lavant Road	CC08254B		
Land north of	CC1421		

Site name	Site code	Impact pathways	Likely significant effects HRA screening
Maddox Wood		Loss of off-site feeding and roosting habitats for bird species	necessary. Due to the distance from the designated site (3.2km at the closest) and the semi urban (and thus disturbed) location of these proposed development sites north of Chichester City, it is considered unlikely that these sites would support significant numbers of over-wintering population of Brent geese and wader species associated with the Solent European sites. The loss of this habitat is unlikely to impact upon the availability of off-site feeding and roosting habitats for bird features of the Solent European sites. There are also no pathways for surface water quality or construction disturbance impacts.
Land south of Foxbridge Cottage (North)	IF08416A	These sites are located within the settlements of Plaistow and Ifold, located more than 30km from Chichester and Langstone Harbours SPA and Ramsar and Solent Maritime SAC	No HRA implications
Land south of Foxbridge Cottage (South)	IF08416B		
Land at Little Springfield Farm	IF1501		
Land north of Little Springfield Farm (Policy PL1)	IF1504		
Land south of Barnwood	IF08371		
Land at Shortlands Copse	PL1503		
Land north of Todhurst	PL1204		
Land at Bracklesham Lane	EWBR08216B	Recreational pressure	These sites lie within the 5.6km 'zone of influence' of the SPA and Ramsar and therefore are likely to result in an increase in recreational pressure upon the European designated sites. In order to mitigate for this additional recreational pressure, developer contributions per new dwelling to the Solent Disturbance and Mitigation Project through the S106 agreements and/or CIL will be necessary.
Land South of Clappers Lane	EWBR08221B	Loss of off-site feeding and roosting habitats for bird species	At their closest, these sites are located 2.0km from the European designated sites. Whilst these sites are currently dominated by arable that has potential to be used by wintering birds of the European sites, they are located on the fringes of urban development and at their closets are located 2.0km from the European sites. The general area surrounding these sites is of an arable nature, more rural (less disturbed)

Site name	Site code	Impact pathways	Likely significant effects HRA screening
			<p>than that within these three sites. As such, it is considered unlikely that these sites would support significant numbers of over-wintering population of Brent geese and wader species associated with the Solent European sites. The loss of this habitat is unlikely to impact upon the availability of off-site feeding and roosting habitats for bird features of the Solent European sites.</p> <p>There are also no pathways for surface water quality or construction disturbance impacts.</p>
Chantry Hall Farm	WB08142	Recreational pressure	<p>These sites lie within the 5.6km 'zone of influence' of the SPA and Ramsar and therefore are likely to result in an increase in recreational pressure upon the European designated sites. In order to mitigate for this additional recreational pressure, developer contributions per new dwelling to the Solent Disturbance and Mitigation Project through the S106 agreements and/or CIL will be necessary.</p> <p>At their closest, these sites are located 2.0km from the European designated sites. From review of aerial photography, these sites appear to be used for grazing horses making them relatively disturbed and therefore less likely to support significant populations of wintering bird species associated with the European designated sites. In addition, these sites are located adjacent to the urban (and disturbed) environment. The general area surrounding these sites and between these sites and the SPA/ Ramsar site includes urban areas, but also parcels of arable land that is more suitable to support populations of SPA and Ramsar site features. As such, it is considered unlikely that these sites would support significant numbers of over-wintering population of Brent geese and wader species associated with the Solent European sites. The loss of this habitat is unlikely to impact upon the availability of off-site feeding and roosting habitats for bird features of the Solent European sites.</p> <p>There are also no pathways for surface water quality or construction disturbance impacts.</p>
The Foxmeadow Stud	WB08141		
Land west of Monks Hill	WB08144		
Land north of Longcopse Lane	WB08143	Loss of off-site feeding and roosting habitats for bird species	
Land to the rear of Sturt Avenue, Camelsdale (Policy LY01)	CH0820	This site is located in the settlement of Calesdale located nearly 28km from Chichester and Langstone Harbours SPA and Ramsar and Solent Maritime SAC	No HRA implications

Summary

A total of five allocated housing sites are situated within the 5.6km zone of influence from Chichester and Langstone Harbours SPA and Ramsar and Solent Maritime SAC (the Solent European sites), including the Medmerry realignment. These are covered by policies BO1, CC1, CC2, CC3, CC4 and HN1. As such these residential site allocations will result in increased recreational pressure on the internationally designated sites. In order to mitigate for this additional recreational pressure upon these Solent European sites, developer contributions to the Solent Disturbance and Mitigation Project per new dwelling through the S106 agreements and/or CIL will be necessary. Provided that these contributions are made in line with Local Plan Policy 50 (Development and Disturbance of Birds in Chichester and Langstone Harbours Special Protection Area) no actual likely significant effect will result.

One of the allocated housing sites (Land at Highgrove Farm Policy BO1) is situated within an area that has the potential to be supporting habitat to foraging and roosting over-wintering populations of Brent geese and wader species associated with the Solent European sites and is large enough to potentially be of significance for the SPA/Ramsar population. Research/studies regarding utilised feeding sites for these species outside of the Solent European sites have not been undertaken as far north as the strategically allocated sites identified within the Chichester Site Allocation Development Plan. This may itself indicate that it is not expected that significant numbers of Brent geese or waders will roost/feed this far from the SPA/Ramsar site. It is recommended that a Phase 1 habitat survey is conducted for the planning application for this site in order to determine the suitability of the habitat within the site to support Brent geese and wader species. If the habitat is considered to be suitable wintering bird surveys should be conducted to determine the use of the site by bird species. If it is determined that the site is significant as a roosting/feeding site for wintering waders or Brent goose then mitigation will be required to ensure no net loss of such habitat. It is not considered that the need to provide mitigation (if it emerged) would provide deliverability difficulties for this site.

4.5.2 Proposed employment sites

The following employment sites were proposed as part of the Site Allocation development plan document. All sites are listed below in Table 4.4 and shown on Figure 5, with regard to potential effects at Chichester and Langstone Harbours SPA and Ramsar and Solent Maritime SAC. Sites included in the Proposed Submission DPD are identified in **bold** and their policy number provided.

Sites for employment use will generally not result in increases in recreational pressure upon internationally designated sites such as Chichester and Langstone Harbours SPA and Ramsar and Solent Maritime SAC. That impact pathway is therefore not considered within the following table unless the site is for mixed use and therefore potentially allows for new residential development.

Table 4-3. Chichester employment local site screening, for likely significant effects at Chichester and Langstone Harbours SPA and Ramsar and Solent Maritime

Site name	Site code	Impact pathways	Likely significant effects HRA screening
Fuel Depot Site, Bognor Road (Policy CC8)	CC1444 (EMP1502)	Loss of off-site feeding and roosting habitats for bird species	This site is located approximately 3.7 km from the SPA and Ramsar site. From reviewing aerial photography, this site appears to be an old industrial area (fuel depot) with railway sidings and raised bunkers that are topped with grass. The habitats on site and the heavily disturbed nature of the site make it unsuitable to support a significant population of bird features for which the SPA and Ramsar site are designated.
Bus Depot, Basin Road	MU1502 (CC08406)	Recreational Pressure	These sites are located approximately 1.8km from the SPA and Ramsar sites. These sites are allocated for mixed use (i.e. 41 Terminus Road is allocated for a mixture of student accommodation and employment) so could include provision for new housing development which could lead to increases in recreational pressure upon designated sites. As these sites lie within the 5.6km 'zone of
Post Office Sorting Depot, Basin Road	MU1506 (CC08251)		
41 Terminus Road, Chichester (Policy CC5)	MU1507		

Site name	Site code	Impact pathways	Likely significant effects HRA screening
		Loss of off-site feeding and roosting habitats for bird species	<p>influence' of the SPA and Ramsar and therefore is likely to result in an increased of recreational pressure upon the Solent European sites. In order to mitigate for this additional recreational pressure a contribution through the S106 agreements and/or CIL will be necessary.</p> <p>These sites are located within the urban area of Chichester. From reviewing aerial photography they are located within industrial surroundings and habitats are dominated by hard standing and buildings. These habitats are not suitable to support populations of SPA and Ramsar bird features.</p>
High School, Kingsham Road (Policy CC6)	EMP1511	Loss of off-site feeding and roosting habitats for bird species	At its closest this site is located 1.8km from the SPA and Ramsar site. From reviewing aerial photography, the site is located within the urban area of Chichester. EMP1511 appears to be a school playing field, subject to existing levels of disturbance located within an urban setting. This habitat is not suitable to support populations of SPA and Ramsar bird features.
Land South of A27 – Opposite Terminus Road	EMP1512 (CC8209)	Urbanisation and surface water quality Loss of off-site feeding and roosting habitats for bird species	<p>The site boundary currently encompasses part of the SPA/Ramsar site. It is assumed that no development is actually proposed here, but careful design will be required to ensure that a suitable buffer is included between built development and the SPA/Ramsar site and SAC in order to avoid a sense of encroachment on the European site which is otherwise largely surrounded by open habitat.</p> <p>In addition, the proximity of the site to the SPA/Ramsar site raises the possibility of impacts from construction noise, construction and operational lighting and surface water runoff into the SPA/Ramsar site. All of these are resolvable through either careful design or working practices but will need to be considered in detail in any planning application.</p> <p>Given its proximity immediately adjacent to the SPA/Ramsar site the site also has the potential to support foraging or roosting over-wintering Brent geese and wader species, which have been found to utilise habitats outside of the Solent European site boundaries. The majority of the feeding sites are amenity/recreation grassland or arable land. Therefore the loss of this habitat could result in the loss of potential feeding sites for these species. It is therefore recommended that wintering bird surveys are conducted to determine the use of the site by bird species. If it is</p>

Site name	Site code	Impact pathways	Likely significant effects HRA screening
			determined that the site is significant as a roosting/feeding site for wintering waders or Brent goose then mitigation will be required to ensure no net loss of such habitat.
Land South of Shopwyke Road and Land North of Fuel Depot	MU1503 / MU1504 (CC08214)/ MU1505	Recreational pressure Loss of off-site feeding and roosting habitats for bird species	The site is mixed use (thus potentially including housing) and lies within the 5.6km 'zone of influence' of the SPA and Ramsar and therefore is likely to result in an increase in recreational pressure upon the European designated sites. In order to mitigate for this additional recreational pressure, developer contributions per new dwelling to the Solent Disturbance and Mitigation Project through the S106 agreements and/or CIL will be necessary. From aerial photography and mapping, this site appears to be a plant nursery, dominated by tussocky vegetation, scrub and trees with a large lake. Habitats on site are considered to be unsuitable to support bird features for which the SPA and Ramsar site are designated
Land south of Bognor Road (Brick Kiln Garden Centre)	NMRC1440 (MU1501)	Recreational pressure Loss of off-site feeding and roosting habitats for bird species	The sites are mixed use (thus potentially including housing) and lie within 5.6km 'zone of influence' of the SPA and Ramsar and therefore are likely to result in an increase in recreational pressure upon the European designated sites. In order to mitigate for this additional recreational pressure, developer contributions per new dwelling to the Solent Disturbance and Mitigation Project through the S106 agreements and/or CIL will be necessary. The closest of these sites (NMRC1440) is located 4km from the designated site. Due to the distances involved, it is considered unlikely that site would support significant numbers of over-wintering Brent geese and wader species associated with the internationally designated sites. The loss of this habitat is unlikely to impact upon the availability of off-site foraging and roosting habitats for bird species associated with the designated sites. There is also no pathway for surface water quality or construction disturbance impacts.
Walnut Tree Field, Vinnetrow Road, Runcton	EMP1510	Loss of off-site feeding and roosting habitats for bird species	This site is located 4.5km from the SPA and Ramsar site. From reviewing aerial photography, the site is located adjacent to a large plant nursery and is well enclosed by a thick band of trees. The site contains no sight lines to the designated site. For this reason and due to the distance from the designated site, it is not considered suitable to support a significant population of bird features for which the SPA and Ramsar site are designated.

Site name	Site code	Impact pathways	Likely significant effects HRA screening
Plot 12, Terminus Road (Policy CC7)	EMP1513	Loss of off-site feeding and roosting habitats for bird species	The site is located approximately 730m from the SPA and Ramsar site. From reviewing aerial photography, the site is separated from the SPA and Ramsar site by the A27 (a busy road) and housing. From reviewing aerial photography, the site is screened by a dense hedge line. In addition, the site is located at the edge of an industrial unit, with habitats including hard standing and tussocky grassland. These habitats are not considered suitable to support bird features for which the SPA and Ramsar is designated.
Watery Lane Road Frontage Site	EMP1506	Loss of off-site feeding and roosting habitats for bird species	This site is located 2.7km from the SPA and Ramsar site. It is located adjacent to the A27. From reviewing aerial photography, the site is screened from the SPA and Ramsar site by hedgerows. In addition, it appears that the site is/ has been used as a remote site/ construction compound. This high level of disturbance makes this site unlikely to support bird features for which the SPA and Ramsar site are designated.
Springfield Park (adjacent to Fuel Depot), Oving (Policy CC9)	EMP1514	Loss of off-site feeding and roosting habitats for bird species	This site is located approximately 4km from the SPA and Ramsar site. From reviewing aerial photography this site is currently used for storage (such as caravans). The disturbed nature of this site makes it unsuitable to support significant populations of bird features for which the SPA and Ramsar site are designated.
Lansdowne Nursery	EMP1515	Loss of off-site feeding and roosting habitats for bird species	This site is located approximately 4.7km from the SPA and Ramsar site. From reviewing aerial photography this site is a vacant and derelict nursery/glasshouse site. The disturbed nature of this site makes it unsuitable to support significant populations of bird features for which the SPA and Ramsar site are designated.
Sherwood Nursery	EMP1517	Loss of off-site feeding and roosting habitats for bird species	This site is located approximately 4.7km from the SPA and Ramsar site. From reviewing aerial photography this site is a vacant and derelict nursery/glasshouse site. The disturbed nature of this site makes it unsuitable to support significant populations of bird features for which the SPA and Ramsar site are designated.
Chichester Garden Centre, Merston	EMP1501 (CC1460)	Loss of off-site feeding and roosting habitats for bird species	This site is located 4.4km from the SPA and Ramsar site. From reviewing aerial photography, part of the site is hard standing with associated buildings and part of the site consists of tussocky grassland. These habitats on site and because of the distance from the designated sites, this site is not considered suitable to support populations of birds associated with the SPA and Ramsar site.

Site name	Site code	Impact pathways	Likely significant effects HRA screening
Land at Clay Lane, Fishbourne	FB08227 (EMP1508)	Loss of off-site feeding and roosting habitats for bird species	<p>This site is located 600m from the SPA and Ramsar site. From reviewing aerial photography, the site is screened from the designated site by the village of Fishbourne. Habitats on this site include grassland that could support bird populations associated with the SPA and Ramsar site. It is however well screened and lacks sight lines to the designated site, is surrounded by roads and is physically small (less than 1ha).</p> <p>There are no impact pathways for surface water quality or construction disturbance impacts.</p>
Land at Chrislee, Hunston	HN1430 (EMP1516)	Loss of off-site feeding and roosting habitats for bird species	<p>This site is located approximately 3km from the SPA and Ramsar site. From reviewing aerial photography the site consists of small grassland fields, located within an arable setting, but due to the distance involved and the intervening presence of parts of Chichester City it is unlikely that the land will be of significance as supporting habitat for the SPA/Ramsar site.</p>
Land west of Frederick Road, Chichester	EMP1509 (CC08260)	Loss of off-site feeding and roosting habitats for bird species	<p>The site is located 570m from the SPA and Ramsar site. Due to its proximity to the internationally designated sites, this proposed development site has potential to act as supporting habitat beyond the boundaries of the designated site for foraging or roosting over-wintering populations of Brent geese and wader species associated with the Solent European designated sites. The majority of the foraging and roosting sites are amenity/recreation grassland or arable sites. The loss of these habitats could result in the loss of potential foraging and roosting sites for these species. The site is sheltered and lacks sight lines to the designated site. In addition, from reviewing aerial photography, there appears to be well worn pathways within the site, indicating the site is subject to levels of disturbance. The site is considered to have low potential to support Brent geese and wader species; however, acting on the precautionary principle it is recommended that a Phase 1 habitat survey is conducted to determine the suitability of the habitat within the site to support Brent geese and wader species. If the habitat is considered to be suitable wintering bird surveys will be conducted to determine the use of the site by bird species. If it is determined that the site is significant as a roosting/feeding site for wintering waders or Brent goose then mitigation will be required to ensure no net loss of such habitat.</p> <p>There are no impact pathways for</p>

Site name	Site code	Impact pathways	Likely significant effects HRA screening
			surface water quality or construction disturbance impacts.
Land to the rear of 69 Fishbourne Road, Fishbourne	EMP1507 (FB08274)	Loss of off-site feeding and roosting habitats for bird species Urbanisation and surface water runoff	This site is located 170m from the SPA and Ramsar site. From reviewing aerial photography, this appears to be back gardens dominated by scrub, trees and a tennis court and is small (approx. 0.3ha). The site appears screened from the designated site by housing and further trees/ scrub. It is not considered suitable to support a significant population of bird features associated with the SPA and Ramsar site. Due to its close proximity to the SPA and Ramsar site, this proposed development site raises the possibility of impacts from construction noise, construction and operational lighting and surface water runoff into the SPA/Ramsar site. All of these are resolvable through either careful design or working practices but will need to be considered in detail in any planning application.
Land on north side of Cemetery Lane	-	Loss of off-site feeding and roosting habitats for bird species.	This site is located approximately 2.1km from the European designated sites. From review of aerial photography, this site appears to be used for grazing horses making them relatively disturbed and therefore less likely to support significant populations of wintering bird species associated with the European designated sites. In addition, this site is located adjacent to the urban (and disturbed) environment. The general area surrounding this site and between this site and the SPA/ Ramsar site includes urban areas, but also parcels of arable land that is more suitable to support populations of SPA and Ramsar site features. As such, it is considered unlikely that this site would support significant numbers of over-wintering population of Brent geese and wader species associated with the Solent European sites. The loss of this habitat is unlikely to impact upon the availability of off-site feeding and roosting habitats for bird features of the Solent European sites. There are also no pathways present for surface water quality or construction disturbance impacts to interact with the European designated sites.

Summary

None of the allocated employment sites are for mixed use. However, 41 Terminus Road (Policy CC5) is allocated for student accommodation as well as employment. This site is located within 5.6km of the SPA and Ramsar site, so has potential to result in increases in recreational pressure upon the designated sites. To mitigate for this additional recreational pressure a contribution through the S106 agreement and/or CIL will be necessary per development to compensate for this impact. Provided that these contributions are made in line with Local Plan

Policy 50 (Development and Disturbance of Birds in Chichester and Langstone Harbours Special Protection Area) no actual likely significant effect will result.

5 Pagham Harbour SPA and Ramsar

5.1 Introduction

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.

Most of the site is a Local Nature Reserve managed by West Sussex County Council.

5.2 Features of European Interest³¹

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. During the breeding season:

- Little Tern *Sterna albifrons*: 0.3% of the breeding population in Great Britain (5-year mean, 1992-1996);
- Common Tern *Sterna hirundo*: 0.5% of the breeding population in Great Britain (1996).

Over winter:

- Ruff *Philomachus pugnax*: 1.4% of the population in Great Britain (5-year peak mean 1995 – 1999);
- Little Egret *Egretta garzetta*: 100 individuals, representing up to 20.0% of the wintering population in Great Britain (1998).

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. Over winter:

- Dark-bellied Brent Goose *Branta bernicla bernicla*: 0.6% of the population (5-year peak mean 1991/2 – 1995/6).

Pagham Harbour Ramsar site qualifies under one of the nine Ramsar criteria.

Table 5-1. 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 <i>Branta bernicla bernicla</i> : 2512 individuals, representing an average of 1.1% of the populations (5-year peak mean 1998/99-2002-03) Black-tailed godwit <i>Limosa limosa islandica</i> : 377 individuals, representing an average of 1% of the population (5-year peak mean 1998/99 – 2002/03). ³²

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 result of coastal defence work.

³¹ Features of European Interest are the features for which a European sites is selected. They include habitats listed on Annex 1 of the Habitats Directive, species listed on Annex II of the EC Habitats Directive and populations of bird species for which a site is designated under the EC Birds Directive.

³² This population was identified subsequent to designation, for possible future consideration.

5.3 Historic Trends and Current Pressures

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.

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.

The latest Natural England condition assessment of Pagham Harbour SSSI indicated that 93% of the site was in favourable condition.

5.4 Key Environmental Conditions

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
- Absence of disturbance

5.5 Potential Effects of the Plan

Four potential impacts of the Chichester Local Plan: Key Policies document upon the SPA and Ramsar have been identified at the screening stage of the HRA however, urbanisation and coastal squeeze have been previously discussed at a strategic level and no likely significant effects are anticipated and therefore will not be considered further within this section, impact pathways requiring further consideration:

- Recreational pressure; and
- Loss of off-site feeding and roosting areas for bird species

These potential impacts have been assessed by two proposed development types; housing development, and employment sites as outlined below.

5.5.1 Proposed housing sites

The following housing development sites have been proposed as part of the Site Allocation development plan document. All sites are listed below in Table 5.2 with potential effects at Pagham Harbour. Sites included in the Proposed Submission DPD are identified in **bold** and their policy number provided.

Table 5-2. Chichester housing local site screening, for likely significant effects at Pagham Harbour

Site name	Site code	Impact pathways	Likely significant effects HRA screening
Land south of A27 (opposite terminus Road)	CC08209B (EMP1512)	This site is located 4.3km from the SPA and Ramsar site. There are no impact pathways present	No HRA implications
Land east of Taylor's Field	BO08188	None. Sites are located over 6km from the SPA and Ramsar site.	No HRA implications
Land at Highgrove Farm (Policy B01)	BB08195		
	BB08197		

Site name	Site code	Impact pathways	Likely significant effects HRA screening
Swan Field	BO1406		
Land west of Delling Lane	BO08189		
Land at Crede Farm	BB08196		
The French Gardens	BB08198		
Bullock Barn	BB08199		
Cricket Ground (former)			
Land south of the Old Bridge	BB08200		
Railway Arch	BB08204		
Land east of The Street	BX0806	These sites are located about the settlement of Boxgrove, located at least 9km from the SPA and Ramsar site. There are no impact pathways present.	No HRA implications
Land west of Priors Acre	BX0804		
Land north of Boxgrove Primary School	BX0802		
Land south of Crouch Cross Lane	BX0803		
Land west of The Street (Policy BX1)	BX0805		
Land north of Boxgrove Priory	BX1409		
Land east of The Priory	BX1410		
Land west of Frederick Road	CC08260	These sites are located 6km from the SPA and Ramsar site. There are no impact pathways present	No HRA implications
Hammonds	-		
Land Adjacent Tesco Petrol Station, Fishbourne Road (Policy CC1)	-		
117 The Hornet (Policy CC3)	-		
Bartholomews, Bognor Road (Policy CC2)	-		
Shopwyke Strategic Development Location (Shopwyke Lakes; Policy CC4)	CC08213		
Land north of	HN08236		

Site name	Site code	Impact pathways	Likely significant effects HRA screening
10 Oak View			<p>Ramsar sites 'zone of influence'. Any new residential development is likely to result in an increased of recreational pressure upon the Solent European sites. In order to mitigate for this additional recreational pressure a contribution towards the appropriate management of Pagham harbour Local Nature Reserve in accordance with the LNR management plan, or a developer provided package of measures associated with the proposed development designed to avoid any significant effects or a combination of these will be required.</p> <p>These sites all lie within c. 2km of the SPA/Ramsar site and are over 1ha in size. Due to their proximity to the internationally designated sites and size, these proposed development sites have potential to act as supporting habitat beyond the boundaries of the designated site for foraging or roosting over-wintering populations of Brent geese and black-tailed godwit associated with the Solent European designated sites. The majority of the feeding sites are amenity/recreation grassland or arable sites. It is recommended that for each planning application a Phase 1 habitat survey is conducted to determine the suitability of the habitat within the site to support Brent geese and black-tailed godwit. If the habitat is considered to be suitable, then wintering bird surveys should be conducted to determine the extent of use of the site. If it is determined that the site is significant as a roosting/feeding site for wintering waders or Brent geese then mitigation will be required to ensure no net loss of such habitat.</p>
Land south of Meadow Close	HN08285		
Land east of Meadow Close	HN08286		
Land east of Foxbridge Drive	HN08245		
Land at Bridge Farm	HN1431		
Land at Farmfield Nursery	HN1432	Loss of off-site feeding and roosting areas for bird species	
Land at the corner of Church Lane and Main Road	HN08287	Recreational pressure	<p>These sites lie within 3.5km of the SPA and Ramsar sites 'zone of influence'. Any new residential development is likely to result in an increased of recreational pressure upon Pagham Harbour. In order to mitigate for this additional recreational pressure a contribution towards the appropriate management of Pagham harbour Local Nature Reserve in accordance with the LNR management plan, or a developer provided package of measures associated with the proposed development designed to avoid any significant effects or a combination of these will be required.</p> <p>They are all considered to be small enough and/or sufficiently distant from the SPA/Ramsar site that they are unlikely to be of significance to the SPA population of Brent geese or black tailed godwit.</p>
Land south of Reedbridge Farm (Policy HN1)	HN08235		
Land south of Carmelite Convent	HN08234		
Reedbridge Farm	HN08233		
Hunston Dairy Farm	HN08288	Loss of off-site feeding and roosting areas for bird species	
Land at Chrislee	HN1430		
Land south of Foxbridge Cottage (North)	IF08416	Recreational pressure	These sites lie outside the 3.5km zone of influence and therefore recreational pressure associated with these land parcels is not anticipated.

Site name	Site code	Impact pathways	Likely significant effects HRA screening
Land north of Summersdale Court	CC08255	Loss of off-site feeding and roosting areas for bird species	Due to the distances involved, it is considered unlikely that these sites would support significant numbers of over-wintering population of Brent geese and black tailed godwit. Therefore the loss of this habitat is unlikely to impact upon the availability of off-site feeding and roosting habitats for bird species.
Land north of Marchwood	CC08204		
Maddox Wood, Lavant Road	CC08254B		
Land north of Maddox Wood	CC1421		
Land south of Foxbridge Cottage (South)	IF08416		
Land south of Barnwood	IF08371		
Land at Shortlands Copse	PL1503		
Land at Little Springfield Farm	IF1501		
Land north of Little Springfield Farm (Policy PL1)	IF1504		
Land north of Todhurst	PL1204		
Land at West of Bracklesham Lane	EWBR08216A		
Land at West of Bracklesham Lane	EWBR08216B		
Land at West of Bracklesham Lane	EWBR08221B		
Chantry Hall Farm	WB08142		
The Foxmeadow Stud	WB08141		
Land west of Monks Hill	WB08144		
Land north of Longcopse Lane	WB08143		
Land to the rear of Sturt Avenue, Camelsdale (Policy LY01)	CH0820	None. Located more than 30km from Pagham Harbour SPA and Ramsar site	No HRA implications

Summary

One allocated housing site (Land south of Reedbridge Farm (Policy HN1) lies within the 3.5km 'zone of influence' of the SPA and Ramsar which is likely to lead in an increase in recreational pressure at Pagham harbour. In order to mitigate for the additional recreational pressure upon the European designates site a contribution towards the appropriate management of Pagham Harbour Local Nature Reserve in accordance with the LNR management plan, or a developer package of measures associated with the proposed development designed to

avoid any significant effects will be required at this site. Provided that this site is delivered in line with the requirements of Local Plan Policy 51 (Development and Disturbance of Birds in Pagham Harbour Special Protection Area) no likely significant effect will arise.

5.5.2 Proposed employment sites

The following employment sites were proposed as part of the Site Allocation development plan document. All sites are listed below in Table 5.4 with potential effects at Pagham Harbour. Sites for employment use will generally not result in increases in recreational pressure upon internationally designated sites such as Pagham Harbour SPA and Ramsar. That impact pathway is therefore not considered within the following table unless the site is for mixed use and also provides for new residential development. Sites included in the Proposed Submission DPD are identified in **bold** and their policy number provided.

Table 5-2. Chichester employment local site screening, for likely significant effects at Pagham Harbour

Site name	Site code	Impact pathways	Likely significant effects HRA screening
Fuel Depot Site, Bognor Road (Policy CC8)	CC1444 (EMP1502)	Loss of off-site feeding and roosting habitats for bird species	The site lies over 4.5km from the SPA. Since it is a former industrial site it does not contain habitat suitable for Brent geese or black tailed godwit.
Bus Depot, Basin Road	MU1502 (CC08406)	Recreational pressure	These sites are located outside the 3.5km zone of influence from the SPA and Ramsar sites. As such, although they are mixed use sites recreational impacts on Pagham Harbour SPA/Ramsar site will not arise.
Post Office Sorting Depot, Basin Road	MU1506 (CC08251)	Loss of off-site feeding and roosting habitats for bird species	These sites are located within the urban area of Chichester. From reviewing aerial photography MU1502 and MU1506 are located within industrial surroundings and habitats are dominated by hard standing and buildings. These habitats are not suitable to support populations of SPA and Ramsar bird features.
Land South of A27 – Opposite Terminus Road	EMP1512 (CC8209)	Loss of off-site feeding and roosting habitats for bird species	This site is located over 4.5km from the SPA and Ramsar sites. Due to the distance involved it is unlikely that the land will be of significance as supporting habitat for Pagham Harbour SPA/Ramsar site.
41 Terminus Road, Chichester (Policy CC5)	MU1507		
Land south of Bognor Road (Brick Kiln Garden Centre)	NMRC1440 (MU1501)	Recreational pressure Loss of off-site feeding and roosting habitats for bird species	These sites are located outside the 3.5km zone of influence from the SPA and Ramsar sites. As such, although they are mixed use sites recreational impacts on Pagham Harbour SPA/Ramsar site will not arise. These sites are located over 4km from the SPA and Ramsar sites. Due to the distance involved it is unlikely that the land will be of significance as supporting habitat for Pagham Harbour SPA/Ramsar site.
Land South of Shopwyke Road and Land North of Fuel Depot	MU1503 / MU1504 (CC08214)/ MU1505		
Walnut Tree Field, Vinnetrow Road, Runcton	EMP1510	Loss of off-site feeding and roosting habitats for bird species	This site is located 2.8km from the SPA and Ramsar site. Due to the distance involved and the location adjacent to the village of Runcton it is unlikely that the land

Site name	Site code	Impact pathways	Likely significant effects HRA screening
			will be of significance as supporting habitat for Pagham Harbour SPA/Ramsar site.
Plot 12, Terminus Road (Policy CC7)	EMP1513	Loss of off-site feeding and roosting habitats for bird species	The site is located well over 5km from the SPA and Ramsar site. In addition, the site is located at the edge of an industrial unit, with habitats including hard standing and tussocky grassland. Given this and the distance involved it is unlikely that the land will be of significance as supporting habitat for Pagham Harbour SPA/Ramsar site.
Watery Lane Road Frontage Site	EMP1506	Loss of off-site feeding and roosting habitats for bird species	This site is located over 3.5km from the SPA and Ramsar site. Due to the distance involved it is unlikely that the land will be of significance as supporting habitat for Pagham Harbour SPA/Ramsar site.
Springfield Park (adjacent to Fuel Depot), Oving (Policy CC9)	EMP1514	Loss of off-site feeding and roosting habitats for bird species	This site is located over 4.5km from the SPA and Ramsar site. From reviewing aerial photography this site is currently used for storage (such as caravans). The disturbed nature of this site makes it unsuitable to support significant populations of bird features for which the SPA and Ramsar site are designated.
Lansdowne Nursery	EMP1515	Loss of off-site feeding and roosting habitats for bird species	This site is located over 5km from the SPA and Ramsar site. From reviewing aerial photography this site is a vacant and derelict nursery/glasshouse site. The disturbed nature of this site makes it unsuitable to support significant populations of bird features for which the SPA and Ramsar site are designated.
Sherwood Nursery	EMP1517	Loss of off-site feeding and roosting habitats for bird species	This site is located over 5km from the SPA and Ramsar site. From reviewing aerial photography this site is a vacant and derelict nursery/glasshouse site. The disturbed nature of this site makes it unsuitable to support significant populations of bird features for which the SPA and Ramsar site are designated.
Chichester Garden Centre, Merston	EMP1501 (CC1460)	Loss of off-site feeding and roosting habitats for bird species	This site is located over 5km from the SPA and Ramsar site. From reviewing aerial photography this site is currently used for storage (such as caravans). The disturbed nature of this site makes it unsuitable to support significant populations of bird features for which the SPA and Ramsar site are designated.
Land west of Frederick Road, Chichester	EMP1509 (CC08260)	Loss of off-site feeding and roosting habitats for bird species	This site is located over 5km from the SPA and Ramsar site. From reviewing aerial photography this site is currently used for storage (such as caravans). The disturbed nature of this site makes it unsuitable to support significant populations of bird features for which the SPA and Ramsar site are designated.
Land at Clay Lane, Fishbourne	FB08227 (EMP1508)	Loss of off-site feeding and roosting habitats for bird species	This site is located over 5km from the SPA and Ramsar site. Moreover, it is surrounded by roads and is physically small (less than 1ha). It is unlikely to support significant populations of bird features for which the SPA and Ramsar site are designated.

Site name	Site code	Impact pathways	Likely significant effects HRA screening
Land to the rear of 69 Fishbourne Road, Fishbourne	EMP1507 (FB08274)	Loss of off-site feeding and roosting habitats for bird species	This site is located over 5km from the SPA and Ramsar site. From reviewing aerial photography, this appears to be back gardens dominated by scrub, trees and a tennis court and is small (approx. 0.3ha). The site appears screened from the designated site by housing and further trees/ scrub. It is not considered suitable to support a significant population of bird features associated with the SPA and Ramsar site.
Land at Chrislee, Hunston	HN1430 (EMP1516)	Loss of off-site feeding and roosting habitats for bird species	This site is located approximately 2.8km from the SPA and Ramsar site. From reviewing aerial photography the site consists of small grassland fields, located within an arable setting, but due to the distance involved it is unlikely that the land will be of significance as supporting habitat for the SPA/Ramsar site.
High School, Kingsham Road (Policy CC6)	EMP1511	Loss of off-site feeding and roosting habitats for bird species	At its closest this site is located 1.8km from the SPA and Ramsar site. From reviewing aerial photography, the site is located within the urban area of Chichester. EMP1511 is an educational establishment, subject to existing levels of disturbance located within an urban setting. This habitat is not suitable to support populations of SPA and Ramsar bird features.
Land on north side of Cemetery Lane	WB1453	Loss of off-site feeding and roosting areas for bird species.	This site lies more than 13km from the SPA and Ramsar site; as such there are no impact pathways present.

Summary

None of the allocated employment sites lie within the 3.5km 'zone of influence' of the SPA and Ramsar which is likely to lead in an increase in recreational pressure at Pagham Harbour. In addition, the allocated employment sites are either not situated in areas likely to function as roosting/foraging habitat for the SPA/Ramsar site or are too small to be of significance as foraging/roosting locations.

6 Ebernoe Common SAC

6.1 Introduction

Ebernoe Common is of international importance as an 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 bat *Barbastella barbastellus* and Bechstein's bat *Myotis bechsteinii* occur within the woodland.

At its closest point the SAC lies adjacent to part of the Local Plan area to which the Chichester Local Plan: Key Policies Submission document applies.

6.2 Features of European Interest³³

Ebernoe Common SAC qualifies as a SAC for both habitats and species. Firstly, the site contains the Habitats Directive Annex I habitats of:

- Beech forests on acid soils

Secondly, the site contains the Habitats Directive Annex II species:

- Barbastelle bat; and
- Bechstein's bat

6.3 Historic Trends and Current Conditions

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)³⁴.

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.

6.4 Key Environmental Conditions

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

³³ Features of European Interest are the features for which a European sites is selected. They include habitats listed on Annex 1 of the Habitats Directive, species listed on Annex II of the EC Habitats Directive and populations of bird species for which a site is designated under the EC Birds Directive.

³⁴ Monk-Terry, M and Lyons, G. Sussex Wildlife Trust Ebernoe Nature Reserve Management Plan 2010-2015.

- Barbastelles require a constant humidity around their roosts; any manipulation of the shrub layer must be carefully considered.

Ebernoe Common is an exceptional site for both species of bats. Much of what is known about the foraging behaviour of barbastelle bats has been derived by studies carried out over the past fifteen years, and the studies are able to give detailed information on flight lines surrounding Ebernoe Common of the barbastelle bat:

- Greenaway, F. (2004) Advice for the management of flightlines and foraging habitats of the barbastelle bat *Barbastellus barbastellus*. English Nature Research Report, Number 657.
- Greenaway, F. (2008) Barbastelle bats in the Sussex West Weald 1997 – 2008

These studies revealed that the barbastelle bats at Ebernoe Common SAC had flightlines that followed watercourses, particularly the River Kird, and woodland cover for distances of typically **5km**. Flightlines outside the SAC are particularly to the south (the Petworth and Tillington area) but also to the west, north and east. There has been less study of the Bechstein bat populations. However, those radio-tracking projects which have been implemented for the species have established that the tracked individuals generally remained within approximately **1.5 km** of their roosts³⁵. These distances do fit with those identified from radio-tracking of Bechstein's that has been undertaken at Ebernoe Common SAC from 2001, which identified that the maximum distance travelled by a tagged Bechstein's bat to its foraging area was 1,407m, with the average 735.7m³⁶. Any development proposals within 5km of Ebernoe Common SAC (including windfall sites and sites not identified within the SDNPA Local Plan) have potential to result in likely significant effects upon the bats species of Ebernoe Common SAC via direct habitat loss or disturbances from lighting, noise and vibrations both during construction and operational phases of development.

6.5 Potential Effects of the Plan

Two theoretical potential impacts of Chichester Local Plan: Key Policies document upon the SAC has been identified at the screening stage of the HRA, however the potential impact of air quality impact on the woodland has been previously discussed at a strategic level and no likely significant effects are anticipated and therefore will not be considered further within this section. Impact pathways requiring further consideration are:

- Disturbance of bat flight lines through development within the north of the Local Plan area

These potential impacts have been assessed by two proposed development types; housing development, and employment sites as outlined below.

6.5.1 Proposed housing sites

The following housing development sites were proposed as part of the Site Allocation development plan document. All sites are listed below in Table 6.1 with potential effects at Ebernoe Common. Sites included in the Proposed Submission DPD are identified in **bold** and their policy number provided.

Table 6-1. Chichester housing local site screening, for likely significant effects at Ebernoe Common

Site name	Site code	Impact pathways	Likely significant effects HRA screening
Land east of Taylor's Field	BO08188	Disturbance of bat flight lines through development within the north of the Local Plan area,	Due to the significant distance from the SAC it is extremely unlikely that the use of this site will have an impact upon the bat flight lines for Barbastelle and Bechstein bats.
Land at Highgrove Farm (Policy BO1)	BB08195		
Swan Field	BB08197		
Land west of Delling Lane	BO1406		

³⁵ Cited in: Schofield H & Morris C. 2000. 'Ranging Behaviour and Habitat Preferences of Female Bechstein's Bats in Summer'. Vincent Wildlife Trust

³⁶ 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

Site name	Site code	Impact pathways	Likely significant effects HRA screening
Land at Crede Farm	BO08189		
The French Gardens	BB08196		
Bullock Barn	BB08198		
Cricket Ground (former)	BB08199		
Land south of the Old Bridge	BB08200		
Railway Arch	BB08204		
Land Adjacent Tesco Petrol Station, Fishbourne Road (Policy CC1)	-		
117 The Hornet (Policy CC3)	-		
Hammonds	-		
Bartholomews, Bognor Road (Policy CC2)	-		
Land south of A27 (opposite terminus Road)	CC08209B		
Land east of The Street	BX0806		
Land west of Priors Acre	BX0804		
Land north of Boxgrove Primary School	BX0802		
Land south of Crouch Cross Lane	BX0803		
Land west of The Street (Policy BX1)	BX0805		
Land north of Boxgrove Priory	BX1409		
Land east of The Priory	BX1410		
Land west of Frederick Road	CC08260		
Land north of 10 Oak View	HN08236		
Land south of Meadow Close	HN08285		
Land east of Meadow Close	HN08286		
Land at the corner of	HN08287		

Site name	Site code	Impact pathways	Likely significant effects HRA screening
Church Lane and Main Road			
Land south of Reedbridge Farm (Policy HN1)	HN08235		
Land south of Carmelite Convent	HN08234		
Land east of Foxbridge Drive	HN08245		
Reedbridge Farm	HN08233		
Hunston Dairy Farm	HN08288		
Land at Chrislee	HN1430		
Land at Bridge Farm	HN1431		
Land at Farmfield Nursery	HN1432		
Land north of Summersdale Court	CC08255		
Land north of Marchwood	CC08204		
Maddox Wood, Lavant Road	CC08254B		
land north of Maddox Wood	CC1421		
Land south of Bognor Road (Brick Kiln Garden Centre)	NMRC1440		
Shopwyke Strategic Development Location (Shopwyke Lakes; Policy CC4)	CC08213		
Land south of Foxbridge Cottage (North)	IF08416A	Disturbance of bat flight lines through development within the north of the Local Plan area	The site does have the potential to impact upon Bechstein and (particularly) Barbastelle flight lines due to the relatively close proximity to the SAC (c. 4.8km). The site is surrounded by Waphurst wood to the south of the site with a waterbody situated between the site and the woodland. It is recommended that bat surveys are conducted at this site to determine the use of the site for bat species and mitigation for lighting requirements are implemented. The preservation of features of relevance to commuting bats (along with a suitable buffer) should be possible without significant deliverability implications for the site.
Land south of	IF08416B	Disturbance of bat flight lines	The site does have the potential to impact

Site name	Site code	Impact pathways	Likely significant effects HRA screening
Foxbridge Cottage (South)		through development within the north of the Local Plan area	upon Barbastelle and Bechstein flight lines due to the close proximity to the SAC. The site is surrounded by Waphurst wood to the south of the site with a waterbody situated between the site and the woodland. It is recommended that bat surveys are conducted at this site to determine the use of the site for bat species and mitigation for lighting requirements are implemented. The preservation of features of relevance to commuting bats (along with a suitable buffer) should be possible without significant deliverability implications for the site.
Land at Little Springfield Farm	IF1501	Disturbance of bat flight lines through development within the north of the Local Plan area	The site does have the potential to impact upon Barbastelle and Bechstein flight lines due to the close proximity to the SAC. The site is surrounded by Waphurst wood to the south of the site with a waterbody situated between the site and the woodland. It is recommended that bat surveys are conducted at this site to determine the use of the site for bat species and mitigation for lighting requirements are implemented. The preservation of features of relevance to commuting bats (along with a suitable buffer) should be possible without significant deliverability implications for the site.
Land north of Little Springfield Farm (Policy PL1)	IF1504	Disturbance of bat flight lines through development within the north of the Local Plan area	The site does have the potential to impact upon Barbastelle flight lines due to the close proximity to the SAC. The site is connected to Waphurst wood to the south of the site with a waterbody situated between the site and the woodland. It is recommended that bat surveys are conducted at this site to determine the use of the site for bat species and mitigation for lighting requirements are implemented. The preservation of features of relevance to commuting bats (along with a suitable buffer) should be possible without significant deliverability implications for the site.
Land south of Barnwood	IF08371	Disturbance of bat flight lines through development within the north of the Local Plan area	The site has potential to impact upon Barbastelle flight lines due to the close proximity to the SAC. The site consists of grassland heavily interspersed with mature trees. In addition it adjoins Barn Wood that is part of a larger woodland complex including waterbodies. It is recommended that bat surveys are conducted at this site to determine the use of the site by bat species, and that mitigation for lighting requirements are implemented. The preservation of features of relevance to commuting bats (along with a suitable buffer) should be possible with careful masterplanning of the site.
Land at Shortlands Copse	PL1503	Disturbance of bat flight lines through development within the north of the Local Plan area	The site does have the potential to impact upon Bechstein and (particularly) Barbastelle flight lines due to the close proximity to the SAC (c. 3.9km). The site is

Site name	Site code	Impact pathways	Likely significant effects HRA screening
			surrounded by woodland to the north of the site with a waterbody also situated to the north in close proximity. It is recommended that bat surveys are conducted at this site to determine the use of the site for bat species and mitigation for lighting requirements are implemented. The preservation of features of relevance to commuting bats (along with a suitable buffer) should be possible without significant deliverability implications for the site.
Land north of Todhurst	PL1204	Disturbance of bat flight lines through development within the north of the Local Plan area	The site does have the potential to impact upon Bechstein and (particularly) Barbastelle flight lines due to the close proximity to the SAC (c. 3.1km). The site is surrounded by Kingspark wood to the south and west of the site. It is recommended that bat surveys are conducted at this site to determine the use of the site for bat species and mitigation for lighting requirements are implemented. The preservation of features of relevance to commuting bats (along with a suitable buffer) should be possible without significant deliverability implications for the site.
Land at West of Bracklesham Lane	EWBR08216A	Disturbance of bat flight lines through development within the north of the Local Plan area	Due to the significant distance from the SAC it is extremely unlikely that the use of this site will have an impact upon the bat flight lines for Barbastelle and Bechstein bats.
Land at Bracklesham Lane	EWBR08216B		
Land South of Clappers Lane	EWBR08221B		
Chantry Hall Farm	WB08142		
The Foxmeadow Stud	WB08141		
Land west of Monks Hill	WB08144		
Land north of Longcopse Lane	WB08143		
Land to the rear of Sturt Avenue, Camelsdale (Policy LY01)	CH0820		

Summary

One of the allocated housing sites (Land north of Little Springfield Farm (Policy PL1)) has the potential to have a significant effect on the bat flight lines of barbastelle and/ or Bechstein's bat depending on how it is delivered. This is because it has suitable habitat to support bat features of the SAC within or nearby and lie within the 5km zone which radio-tracking has indicated is the typical foraging distance used by barbastelle bat associated with the SAC. As such it is recommended that bat surveys are conducted for the planning application to determine the use of the site by bat species. Following that, mitigation and careful design such as lighting plans to protect commuting features and buffer zones, and sensitive seasonal timing of works may need to be implemented. The

preservation of features of relevance to commuting bats (along with a suitable buffer) should be possible without significant deliverability implications for the site.

6.5.2 Proposed employment sites

The following employment sites were proposed as part of the Site Allocation development plan document. All sites are listed below in Table 6.3 with potential effects at Ebernoe Common. Sites included in the Proposed Submission DPD are identified in **bold** and their policy number provided.

Table 6-2. Chichester employment local site screening, for likely significant effects at Ebernoe Common

Site name	Site code	Impact pathways	Likely significant effects HRA screening
41 Terminus Road, Chichester (Policy CC5)	MU1507	Disturbance of bat flight lines through development within the north of the Local Plan area	All of these sites lie over 5km from the SAC and are therefore unlikely to present potential for a likely significant effect on the SAC.
Land south of Bognor Road	NMRC1440 (MU1501)		
Land South of Shopwyke Road and Land North of Fuel Depot	MU1503 / MU1504 (CC08214)/ MU1505		
Fuel Depot Site, Bognor Road (Policy CC8)	CC1444 (EMP1502)		
Bus Depot, Basin Road	MU1502 (CC08406)		
Post Office Sorting Depot, Basin Road	MU1506 (CC08251)		
Land South of A27 – Opposite Terminus Road	EMP1512 (CC8209)		
Walnut Tree Field, Vinnetrov Road, Runcton	EMP1510		
Plot 12, Terminus Road (Policy CC7)	EMP1513		
Watery Lane Road Frontage Site	EMP1506		
Springfield Park (adjacent to Fuel Depot), Oving (Policy CC9)	EMP1514		
Lansdowne Nursery	EMP1515		
Sherwood Nursery	EMP1517		
Chichester Garden Centre, Merston	EMP1501 (CC1460)		
Land west of	EMP1509		

Site name	Site code	Impact pathways	Likely significant effects HRA screening
Frederick Road, Chichester	(CC08260)		
Land at Clay Lane, Fishbourne	FB08227 (EMP1508)		
Land to the rear of 69 Fishbourne Road, Fishbourne	EMP1507 (FB08274)		
Land at Chrislee, Hunston	HN1430 (EMP1516)		
High School, Kingsham Road (Policy CC6)	EMP1511		
Land on north side of Cemetery Lane	-		

Summary

No potential impacts are anticipated for any of the proposed employment sites in relation to bat flight lines, all proposed sites are situated south of Chichester, which is a significant distance away from Ebernoe Common and therefore Barbastelle and Bechstein foraging and commuting habitats.

7 The Mens SAC

7.1 Introduction

The Mens remains as 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.

At its closest point the SAC lies adjacent to part of the Local Plan area to which the Chichester Local Plan: Key Policies Submission document applies.

7.2 Features of European Interest³⁷

The Mens SAC qualifies as a SAC for both habitats and species. Firstly, the site contains the Habitats Directive Annex I habitats of:

- Beech forests on acid soils

Secondly the site contains the Annex II species:

- Barbastelle bat

7.3 Historic Trends and Current Pressures

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.

7.4 Key Environmental Conditions

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);
- 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.

The Mens SAC is owned and managed by Sussex Wildlife Trust. The Mens SAC is important for its barbastelle populations and radio-tracking studies have been undertaken to identify core foraging areas. These reports have identified that the barbastelles of The Mens SAC forage to the east of the SAC, principally on the floodplain of the river Arun from close to Horsham in the north to Parham in the south. They also cross to the Adur floodplain. In some cases the bats travelled up to **7km** to visit foraging areas³⁸. Whilst it is conceivable for barbastelle bats of the SAC to use a wider area for activities such as migrating between hibernation roosts and summer roosts, the currently available radio-tracking evidence indicates that a 7km distance is likely to encompass the core foraging area of importance for barbastelle bats associated with the SAC. Development within 7km of the SAC

³⁷ Features of European Interest are the features for which a European site is selected. They include habitats listed on Annex 1 of the Habitats Directive, species listed on Annex II of the EC Habitats Directive and populations of bird species for which a site is designated under the EC Birds Directive.

³⁸ Greenaway, F. (2008) Barbastelle bats in the Sussex West Weald 1997 - 2008

(particularly to the east) therefore has greatest potential to significantly affect barbastelle flightlines or foraging areas.

7.5 Potential Effects of the Plan

Two theoretical potential impacts of Chichester Local Plan: Key Policies document upon the SAC has been identified at the screening stage of the HRA, however the potential impact of air quality impact on the woodland has been previously discussed at a strategic level and no likely significant effects are anticipated and therefore will not be considered further within this section. Impact pathways requiring further consideration are:

- Disturbance of bat flight lines through development within the Local Plan area

These potential impacts have been assessed by two proposed development types; housing development, and employment sites as outlined below.

7.5.1 Proposed housing sites

A total of 40 potential housing development sites were proposed as part of the Site Allocation development plan, all sites are listed below in Table 7.1 with potential effects at The Mens. Sites included in the Proposed Submission DPD are identified in **bold** and their policy number provided.

Table 7-1. Chichester local site screening for likely significant effects at The Mens

Site name	Site code	Impact pathways	Likely significant effects HRA screening
Land east of Taylor's Field	BO08188	Disturbance of bat flight lines through development within the north of the Local Plan area	Due to the significant distance from the SAC it is extremely unlikely that the use of this site will have an impact upon the bat flight lights for Barbastelle and Bechstein.
Land at Highgrove Farm (Policy BO1)	BB08195		
Swan Field	BB08197		
	BO1406		
Land west of Delling Lane	BO08189		
Land at Crede Farm	BB08196		
The French Gardens	BB08198		
Bullock Barn	BB08199		
Cricket Ground (former)			
Land south of the Old Bridge	BB08200		
Railway Arch	BB08204		
Land Adjacent Tesco Petrol Station, Fishbourne Road (Policy CC1)	-		
117 The Hornet (Policy CC3)	-		
Hammonds	-		
Bartholomews,	-		

Site name	Site code	Impact pathways	Likely significant effects HRA screening
Bognor Road (Policy CC2)			
Land south of A27 (opposite terminus Road)	CC08209B		
Land east of The Street	BX0806		
Land west of Priors Acre	BX0804		
Land north of Boxgrove Primary School	BX0802		
Land south of Crouch Cross Lane	BX0803		
Land west of The Street (Policy BX1)	BX0805		
Land north of Boxgrove Priory	BX1409		
Land east of The Priory	BX1410		
Land west of Frederick Road	CC08260		
Land north of 10 Oak View	HN08236		
Land south of Meadow Close	HN08285		
Land east of Meadow Close	HN08286		
Land at the corner of Church Lane and Main Road	HN08287		
Land south of Reedbridge Farm (Policy HN1)	HN08235		
Land south of Carmelite Convent	HN08234		
Land east of Foxbridge Drive	HN08245		
Reedbridge Farm	HN08233		
Hunston Dairy Farm	HN08288		
Land at Chrislee	HN1430		
Land at Bridge Farm	HN1431		
Land at Farmfield Nursery	HN1432		
Land north of Summersdale Court	CC08255		

Site name	Site code	Impact pathways	Likely significant effects HRA screening
Land north of Marchwood	CC08204		
Maddox Wood, Lavant Road	CC08254B		
land north of Maddox Wood	CC1421		
Land south of Bognor Road (Brick Kiln Garden Centre)	NMRC1440		
Shopwyke Strategic Development Location (Shopwyke Lakes; Policy CC4)	CC08213		
Land to the rear of Sturt Avenue, Camelsdale (Policy LY01)	CH0820		
Land south of Foxbridge Cottage (North)	IF08416A	Disturbance of bat flight lines through development within the north of the Local Plan area	These sites all have the potential to impact upon Bechstein and (particularly) Barbastelle flight lines due to the relatively close proximity to the SAC (c. 7km). The main foraging areas for bats associated with the SAC are to the east, rather than in the direction of these sites, but the issue should be investigated and confirmed. The preservation of features of relevance to commuting bats (along with a suitable buffer) should be possible without significant deliverability implications for the site.
Land south of Foxbridge Cottage (South)	IF08416B		
Land at Little Springfield Farm	IF1501		
Land north of Little Springfield Farm (Policy PL1)	IF1504		
Land south of Barnwood	IF08371		
Land at Shortlands Copse	PL1503		
Land north of Todhurst	PL1204		
Land at West of Bracklesham Lane	EWBR08216A		
Land at Bracklesham Lane	EWBR08216B		
Land South of Clappers Lane	EWBR08221B		
Chantry Hall Farm	WB08142		
The Foxmeadow Stud	WB08141		
Land west of Monks Hill	WB08144		

Site name	Site code	Impact pathways	Likely significant effects HRA screening
Land north of Longcopse Lane	WB08143		

Summary

One of the allocated housing sites (Land north of Little Springfield Farm (Policy PL1)) could have a significant effect on the bat flight lines of barbastelle and Bechstein's due to the close proximity of the site to the SAC (within 7km), depending upon how it is designed and delivered. As such it is recommended that bat surveys are conducted to determine the use of the site by bat species. Following that, mitigation and careful design such as lighting plans to protect commuting features and buffer zones, and sensitive seasonal timing of works may need to be implemented. The preservation of features of relevance to commuting bats (along with a suitable buffer) should be possible without significant deliverability implications for the site.

7.5.2 Proposed employment sites

The following employment sites were proposed as part of the Site Allocation development plan. All sites are listed below in Table 7.2 with potential effects at The Mens. Sites included in the Proposed Submission DPD are identified in **bold** and their policy number provided.

Table 7-2. Chichester employment local site screening, for likely significant effects at The Mens

Site name	Site code	Impact pathways	Likely significant effects HRA screening
41 Terminus Road, Chichester (Policy CC5)	MU1507	Disturbance of bat flight lines through development within the north of the Local Plan area	Due to the significant distance from the SAC it is extremely unlikely that the use of this site will have an impact upon the bat flight lights for Barbastelle and Bechstein.
Land south of Bognor Road	NMRC1440 (MU1501)		
Land South of Shopwyke Road and Land North of Fuel Depot	MU1503 / MU1504 (CC08214)/ MU1505		
Fuel Depot Site, Bognor Road (Policy CC8)	CC1444 (EMP1502)		
Bus Depot, Basin Road	MU1502 (CC08406)		
Post Office Sorting Depot, Basin Road	MU1506 (CC08251)		
Land South of A27 – Opposite Terminus Road	EMP1512 (CC8209)		
Walnut Tree Field, Vinnetrow Road, Runcton	EMP1510		
Plot 12, Terminus Road (Policy	EMP1513		

Site name	Site code	Impact pathways	Likely significant effects HRA screening
CC7)			
Watery Lane Road Frontage Site	EMP1506		
Springfield Park (adjacent to Fuel Depot), Oving (Policy CC9)	EMP1514		
Lansdowne Nursery	EMP1515		
Sherwood Nursery	EMP1517		
Chichester Garden Centre, Merston	EMP1501 (CC1460)		
Land west of Frederick Road, Chichester	EMP1509 (CC08260)		
Land at Clay Lane, Fishbourne	FB08227 (EMP1508)		
Land to the rear of 69 Fishbourne Road, Fishbourne	EMP1507 (FB08274)		
Land at Chrislee, Hunston	HN1430 (EMP1516)		
High School, Kingsham Road (Policy CC6)	EMP1511		
Land on the north side of Cemetery Lane	-		

Summary

No potential impacts are anticipated for any of the proposed employment sites in relation to bat flight lines, all proposed sites are situated south of Chichester, which is a significant distance away from The Mens and therefore Barbastelle and Bechstein foraging and commuting habitats.

8 Wealden Heaths Phase 2 SPA

8.1 Introduction

The Wealden Heaths Phase 2 SPA is a 2,053.83 ha site made up of four separate SSSI units.

Bramshott and Ludshott Commons SSSI

This is the closest SSSI to Chichester District Council. Bramshott and Ludshott Commons support extensive tracts of mature heathland vegetation dominated by heather *Calluna vulgaris*, bell heather *Erica cinerea*, dwarf gorse *Ulex minor* and common gorse *U. europaeus*. Dartford warbler, woodlark, stonechat, nightjar and hobby breed.

Woolmer Forest SSSI and SAC

The Woolmer Forest SAC is part of the Wealden Heaths Phase 2 SPA. Woolmer Forest SSSI contains the largest and most diverse area of lowland heathland habitats in Hampshire (outside of the New Forest), covering 666.68ha, and is considered the most important area of heathland in the Weald of southern England.

Woolmer Forest SSSI is of international importance for its rich diversity of breeding and wintering heathland birds including nationally important breeding populations of nightjar, woodlark and Dartford warbler. The heathland also supports breeding hobby *Falco subbuteo*, breeding populations of stonechat *Saxicola torquata*, tree pipit *Anthus trivialis* and linnet *Acanthis cannabina*. In winter up to two roosts of hen harrier *Circus cyaneus*, as well as merlin *Falco columbarius* and great grey shrike *Lanius excubitor* are regularly recorded in the heathland. The valley mires and wetlands around Woolmer and Cranmer Ponds attract breeding curlew, redshank *Tringa totanus* and snipe *Gallinago gallinago*. The sandy shores of Woolmer Pond also provide habitat for nesting little-ringed plover. The woodlands of Holm and Holly Hills and Passfield Common support redstart *Phoenicurus phoenicurus*. These mature pasture woodlands have also attracted several breeding pairs of wood warbler *Phylloscopus sibilatrix*.

Broxhead and Kingsley Commons SSSI

The site comprises a mosaic of heathland and acid grassland with areas of scrub and secondary woodland. The bird fauna includes breeding populations of nightjar, woodlark and Dartford warbler. Other heathland species include stonechat and tree pipit.

Devil's Punch Bowl SSSI

This site, comprising Hindhead Common, the Devil's Punch Bowl and the Highcomb Valley supports an excellent series of semi-natural habitats including broadleaved and coniferous woodland, heathland, scrub and small meadows. The site contains an outstanding variety of birdlife, with over sixty breeding species. The Highcombe Valley supports breeding wood warblers. Rarer woodland breeding species include firecrest, redpoll and crossbill whilst siskin and hawfinch may breed occasionally. Heathland breeding species include nightjar, woodlark, Dartford warbler, stonechat, and tree pipit.

8.2 Features of European Interest

Wealden Heaths Phase 2 qualifies as a SPA for its breeding bird species. The site contains:

- 1.3% of the British breeding population of nightjar (5 year mean, 1989-1993)
- 2.5% of the British breeding population of woodlark (1997)
- 1% of the British breeding population of Dartford warbler (5 year mean 1989-1993; 1994)

8.3 Historic Trends and Current Pressures

In the most recent Condition Assessment process, almost all of the Devil's Punch Bowl SSSI was considered to be recovering from unfavourable condition that had resulted largely from inappropriate grazing regimes. The other SSSI components of the Wealden Heaths Phase 2 SPA were also largely recovering from unfavourable status. Although many constituent units lie adjacent to the A3, air quality was not implicated as a factor in unfavourable status during these assessments.

The SPA is designated for ground-nesting bird species that would be particularly vulnerable to cat predation, and the heathland habitat itself is extremely vulnerable to accidentally or deliberately started fires.

The heathland habitats of the SPA are very dependent upon grazing and other traditional management practices. In the absence of a functional commoning system the re-establishment of successful grazing management is dependent on the involvement landscape scale heathland management projects. The SPA is vulnerable to heathland fires and there has been pressure for development associated with military training activities. This and the problems caused by formal and informal recreation activities (e.g. mountain biking, orienteering, car and motorcycle events) that are a potential threat to the breeding success of the Annex 1 birds are being addressed by improved liaison and annual consultation meetings with the Ministry of Defence and through management plans on National Trust land.

A visitor survey was conducted to study recreational access the Devil's Punchbowl and Hindhead Common, commissioned as a result of the tunnelling of the A3 that has historically run through the SPA/SSSI. Among the main findings of the report were that the site receives approximately 1,830 to 1,930 visitors per week (the survey was carried out between June and October). Most visitors were relatively local, with 75% of dog walkers and 54% of visitors generally coming from within 5km, and the majority of the remaining visitors origins (those outside 5km) showed clear correlation with the A3 corridor. Haslemere, Grayshott and Beacon Hill were clearly foci from which visitors journeyed. Eighty percent of visitors travelled to the site by car. Once on the site, 82% of visitors travelled 1km, with 70% travelling over 2km. 60% of dog walkers were found to travel over 2.8km.

The East Hampshire Joint Core Strategy HRA analysed all proposed net new housing within 5km (the core catchment) of the SPA in combination and concluded that, based on the levels of net new residential development (3,824 net new dwellings between 2013 and 2028, including windfalls) no strategic mitigation solution was required provided that Whitehill-Bordon and Lowsley Farm (developments in East Hampshire district responsible for the vast majority of new housing within the 5km zone) mitigated for their impacts at the project level. Joint Core Strategy policy (developed in agreement with Natural England and considered sound by the planning inspector at Examination) treats other new housing developments within 5km on a case-by-case basis in determining whether mitigation is required, with the decision as to the need for mitigation being based upon consideration of the scale of development and its proximity to the SPA. The recent HRA for the emerging Waverley Local Plan updated that analysis, including consideration of the proposed housing site in Chichester district, but reached the same conclusion.

8.4 Key Environmental Conditions

The environmental requirements of the Wealden Heaths Phase 2 SPA are mainly:

- Appropriate management: maintenance of traditional grazing regimes
- Risk of fire (military/ urbanisation).
- Management of disturbance during breeding season (March to July).
- Minimal air pollution.
- Absence or control of urbanisation effects, such as fires and introduction of invasive non-native species.
- Maintenance of appropriate water levels.
- Maintenance of water quality.

8.5 Potential Effects of the Plan

Impacts resulting from changes in air quality as a result of the Plan affecting the Woolmer Forest SAC/Wealden Heaths Phase 2 SPA were screened out in consultation with Natural England³⁹ on the basis that traffic on the A3 will be increased by less than 10% as a consequence of development proposed within the Chichester Local Plan. This impact pathway is not discussed further.

A new residential site allocation identified in the Plan is located within 5 km from the SPA. This has potential to result in an increase in recreational pressure within the SPA in combination with other projects and plans. This site is Land to the rear of Sturt Avenue, Camelsdale (Policy LY01) for 10 new dwellings located approximately 2.5km east of the SPA.

The 3,824 net new dwellings including windfall that was used as the basis for the 2013 Joint Core Strategy HRA did not include any allowance for net new housing in Chichester District, as at that time none was proposed within 5km of the SPA. The proposal to allocate a site for 10 dwellings in Camelsdale in the Site Allocation Development will therefore raise the net new dwellings expected within 5km until 2028 to 3,834 dwellings. This is an increase of 0.3% compared to the previous number. Since the allocated site lies 2km from the SPA at its closest it will not pose a development site-specific risk of likely significant effect to the Wealden Heaths Phase 2 SPA. Since it also increases the total amount of net new housing to be delivered within 5km of the SPA by only 0.3% (10 dwellings) it is considered that this is an immaterial change and the conclusions of the Joint Core Strategy HRA regarding 'in combination' effects remain valid. Therefore, it is concluded that the allocation of the Camelsdale site will not result in a likely significant effect on the SPA either alone or in combination with other projects and plans. This has been affirmed by updated strategic analysis undertaken in the recent HRA of the emerging Waverley Local Plan, which included consideration of the Camelsdale site allocation.

³⁹ Louise Bardsley as communicated to Chichester District Council. Although this was agreed in relation to South East Plan housing figures, the Council has set a housing target in line with the South East Plan and therefore this agreement will still apply.

9 Conclusion

9.1 Other plans and projects

As discussed earlier in this report 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. Since the overall quantum of development planned for Chichester has not changed and many of the plans that were incorporated into that in combination assessment have also not changed, the core of that in combination assessment remains valid. 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 & Langstone Harbour and Pagham Harbour are considered cumulatively.

In addition to the Site Allocation development plan document, the South Downs National Park Authority has recently gone out to consultation on their preferred options Local Plan, which includes some site allocations. This covers a large part of rural Chichester district including areas within 5km of Ebernoe Common SAC and 7km of The Mens SAC. The Local Plan has been subject to an HRA report that has been consulted upon by Natural England. This includes recommendations (which are being reflected in Local Plan policy) that will specifically protect these two European sites from inappropriate development within the 5km and 7km zones. As such, an in combination likely significant effect with the Site Allocation development plan document would not arise.

Further to this a single residential site allocation has been provided within 5km of the Wealden Heaths Phase 2 SPA. Since the allocated site lies 2km from the SPA at its closest it will not pose a development site-specific risk of likely significant effect to the Wealden Heaths Phase 2 SPA. Since it also increases the total amount of net new housing to be delivered within 5km of the SPA by only 0.3% (10 dwellings) it is considered that this is an immaterial change and the conclusions of the Joint Core Strategy HRA regarding 'in combination' effects remain valid. Therefore, it is concluded that the allocation of the Camelsdale site will not result in a likely significant effect on the SPA either alone or in combination with other projects and plans.

There are a number of Neighbourhood Plan areas that have been designated in the Local Plan area. The Birdham, Bosham, Chidham & Hambrook, East Wittering & Bracklesham, Fishbourne, Southbourne and Tangmere Neighbourhood Plan areas all lie at least partly within 5.6km of Chichester & Langstone Harbours SPA/Ramsar site. The Selsey Neighbourhood Plan area lies within 3.5km of Pagham Harbour SPA. The development within these Neighbourhood Plan areas would therefore contribute collectively to the recreational pressure in combination effect already discussed for these European sites. However, all development in these Neighbourhood Plans must comply with the Local Plan, which already has policies in place to enable mitigation for recreational pressure on these sites. As such, no actual in combination effect will arise. The Selsey Neighbourhood Plan has been accompanied by an HRA which specifically sets out requirements to protect Pagham Harbour SPA/Ramsar site from loss of supporting habitat. None of the other Neighbourhood Plans have been accompanied by an HRA but the development control process would enable any land that is of importance as supporting habitat for SPA birds to be identified and protected or mitigated as necessary. As such, a likely significant effect in combination with the Site Allocation development plan document would not arise in practice.

The Kirdford, Loxwood and Wisborough Green Neighbourhood Plan areas all lie wholly or partly within either 5km of Ebernoe Common SAC or 7km of The Mens SAC. As such, individual sites will require consideration at the planning application stage as to whether habitats on site are likely to be used by barbastelle (in particular) and Bechstein bat and if so whether the detailed design of the development is such that the key features are adequately protected. This will be secured through the District Council development management process such that a likely significant in combination effect with the Site Allocation development plan document would not arise.

9.2 Overall conclusion

A number of allocated housing sites, or employment development sites have been identified to lie within either 5.6km of Chichester & Langstone Harbours SPA/Ramsar site or within 3.5km of Pagham Harbour SPA. These would lead to a likely significant effect on the European sites as a result of increased recreational pressure, when

considered in combination with other housing to be delivered within the core catchments. However, there are Local Plan policies specifically intended to address this matter. Since the sites must be compliant with Local Plan policy no actual likely significant effects from this pathway will arise.

A single residential site allocation has been provided within 5km of the Wealden Heaths Phase 2 SPA; however, it is considered that this is an immaterial change and the conclusions of the Joint Core Strategy HRA regarding 'in combination' effects remain valid. Therefore, it is concluded that the allocation of the Camelsdale site will not result in a likely significant effect on the SPA either alone or in combination with other projects and plans.

One housing site (Land at Highgrove Farm, Policy BO1) has been identified to be situated in an area that could be used by birds associated with either Chichester & Langstone Harbour SPA/Ramsar site and which is large enough to be potentially significant for these European sites.

It is important to understand that this is an intentionally precautionary assessment; no studies undertaken so far have flagged this site as being of importance to either SPA/Ramsar site. While this could be due to surveys having been undertaken and a judgment of 'no significance' having been reached it could also simply be due to absence of survey. It is therefore recommended that this site is subject to a Phase 1 Habitat Survey (followed as necessary by a passage/wintering bird survey) as part of the planning application. If the site is deemed to be of value as supporting habitat for either SPA/Ramsar site⁴⁰, then mitigation would be required to ensure no net loss of roosting/foraging habitat.

Finally, one site (Land north of Little Springfield Farm (Policy PL1) is located within sufficiently close proximity to Ebernoe Common SAC and The Mens SAC that, depending on how it is designed and delivered, it could adversely affect foraging and commuting routes for barbastelle bats associated with the either (or both) SACs. This can be avoided through careful design and timing of works to minimise disturbance and ensure appropriate protection of commuting routes and associated buffer zones.

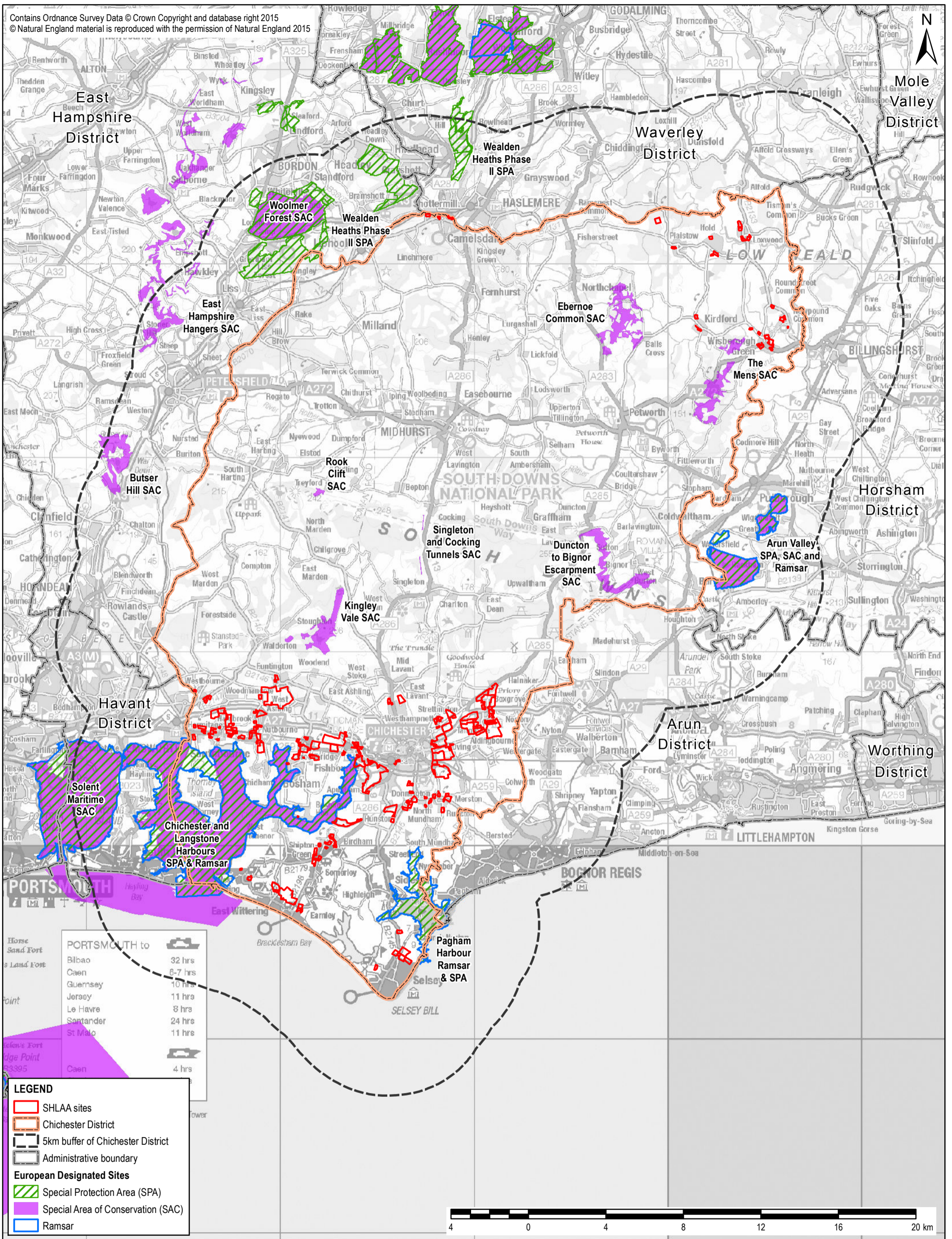
Policy SA1 of the Site Allocation DPD requires that all identified proposals and sites should comply with relevant policies set out in the Chichester Local Plan: Key Policies 2014-2029 and any other relevant policies and guidance. Policy 49 Biodiversity of the Chichester Local Plan sets the criteria which have to be demonstrated, including:

1. The biodiversity value of the site is safeguarded;
2. Demonstrable harm to habitats or species which are protected or which are of importance to biodiversity is avoided or mitigated;
4. The proposal protects, manages and enhances the District's network of ecology, biodiversity and geological sites, including the international, national and local designated sites (statutory and non-statutory), priority habitats, wildlife corridors and stepping stones that connect them.

It is considered that this provides a sufficient policy framework to address the matters regarding Land at Highgrove Farm and Land north of Little Springfield Farm. Therefore, a conclusion of no likely significant effect on European sites can be made for the Site Allocation development plan document, alone and in combination with other plans and projects.

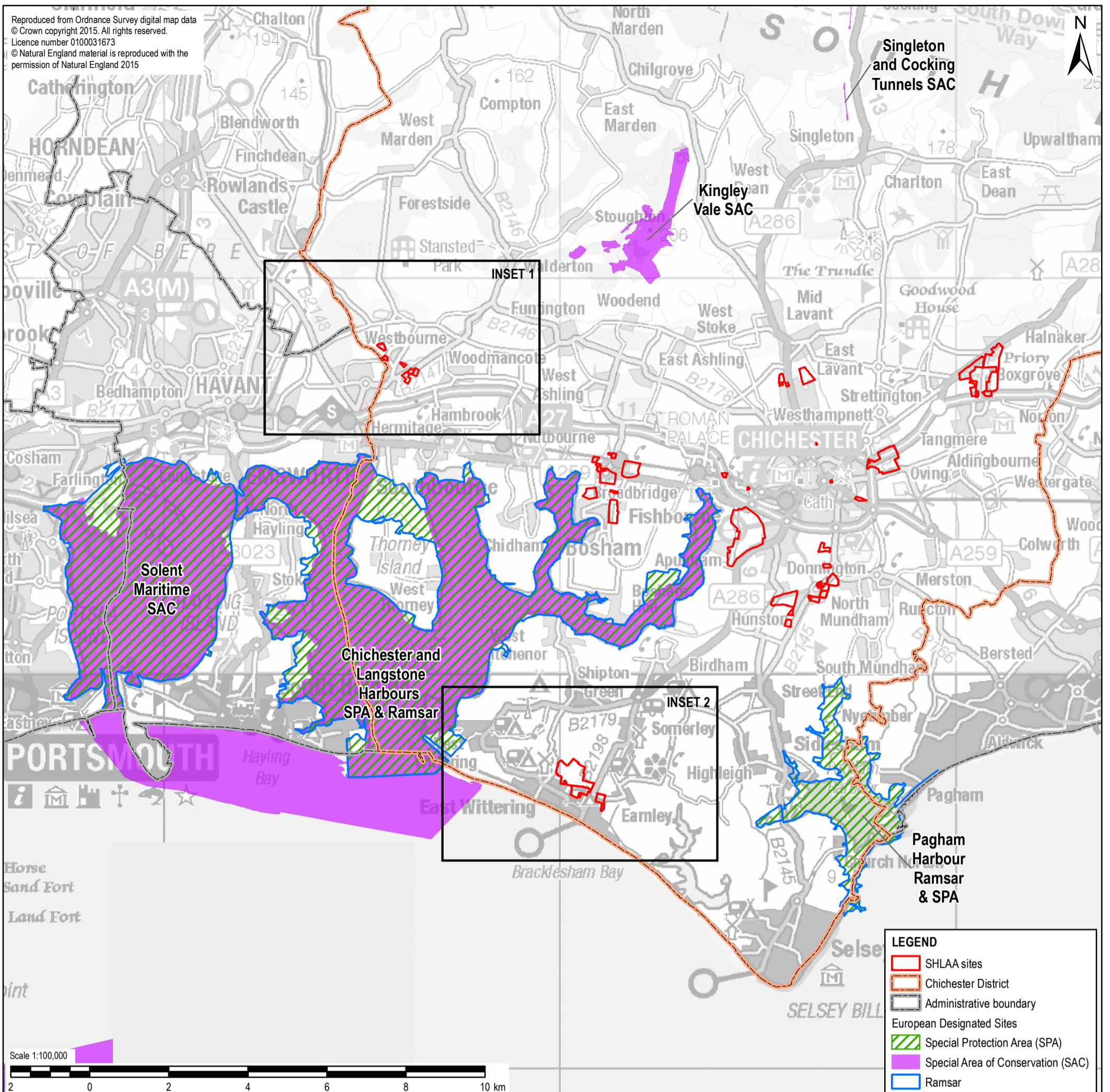
⁴⁰ Generally taken to be if the site regularly supports more than 1% of the SPA/Ramsar site population

10 Maps



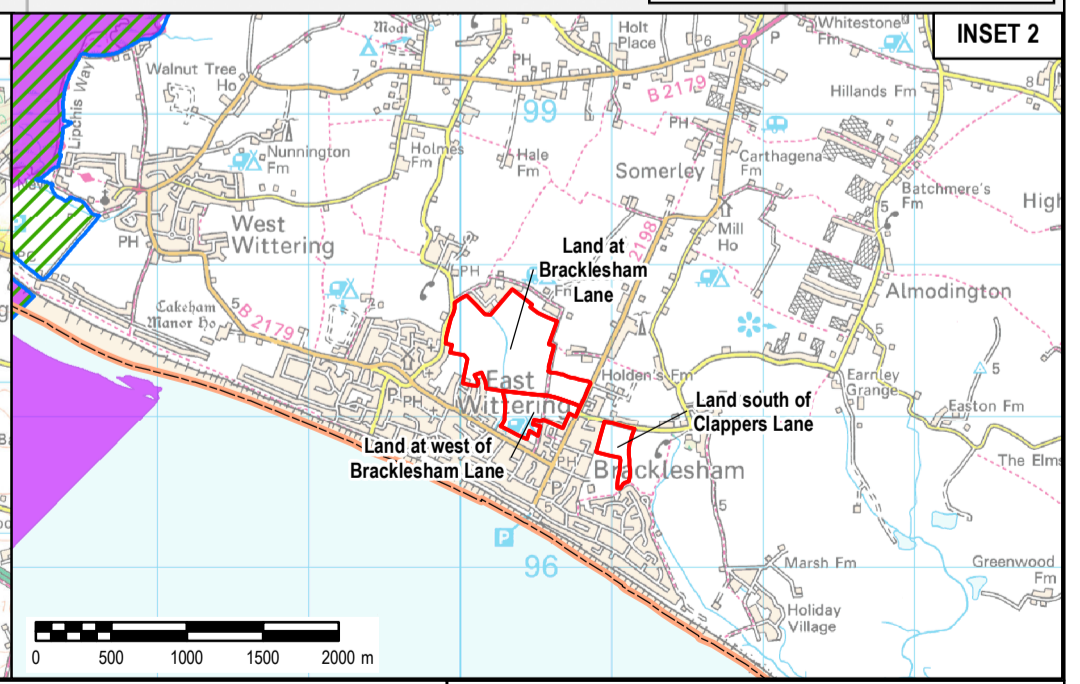
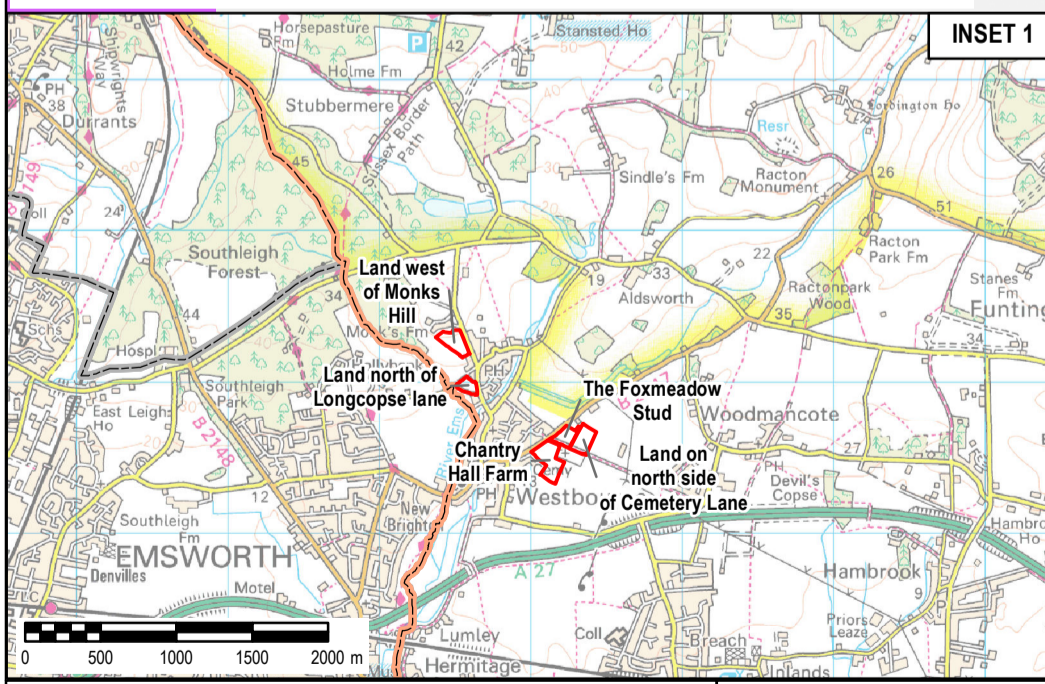
Project Title/Drawing Title		Client		AECOM	
CHICHESTER SITE ALLOCATIONS HRA		CHICHESTER DISTRICT COUNCIL		Scott House Alençon Link, Basingstoke Hampshire, RG21 7PP Telephone (01256) 310200 Fax (01256) 310201 www.aecom.com	
EUROPEAN DESIGNATED SITES		Drawn TG	Checked JR	Approved JR	
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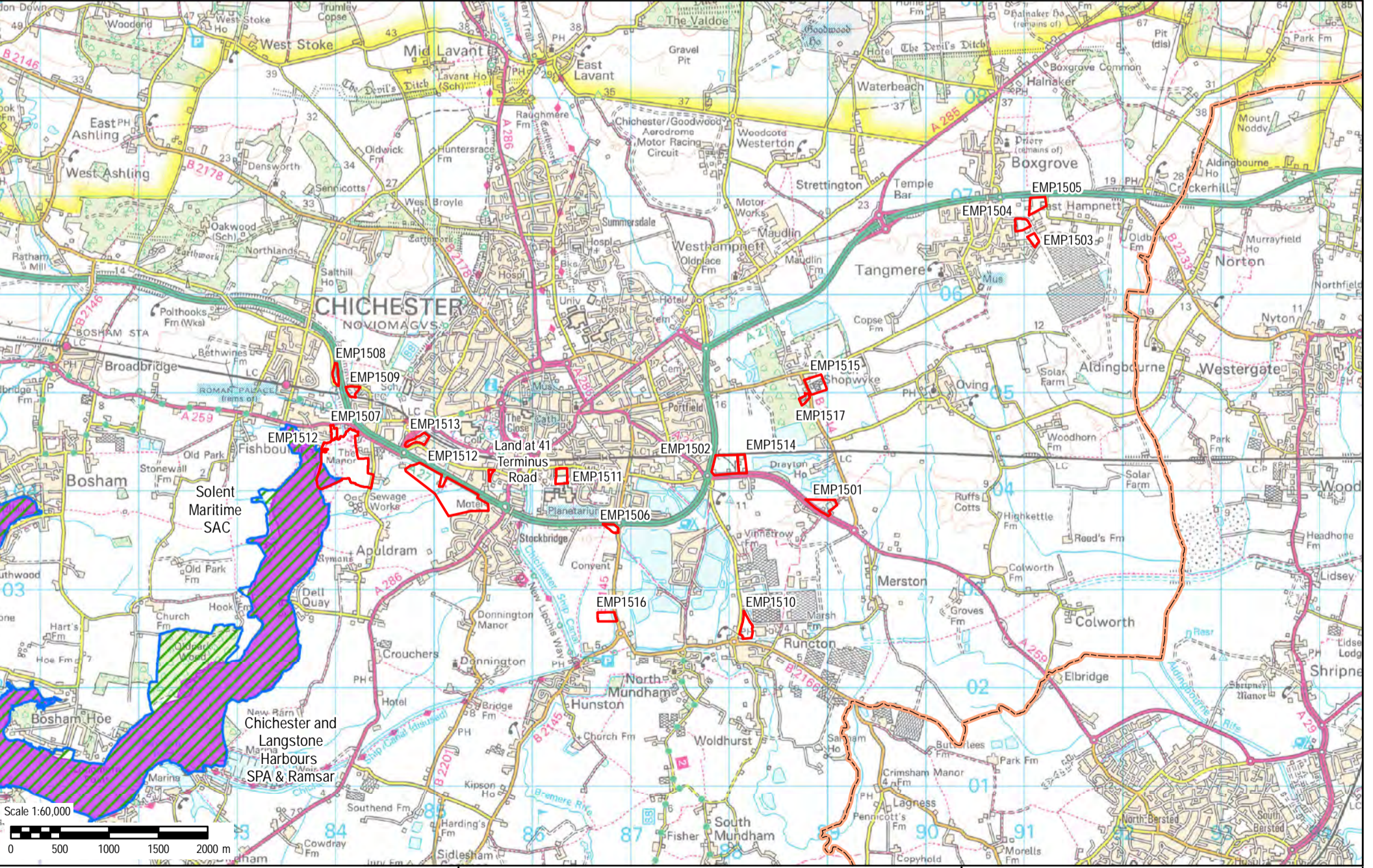
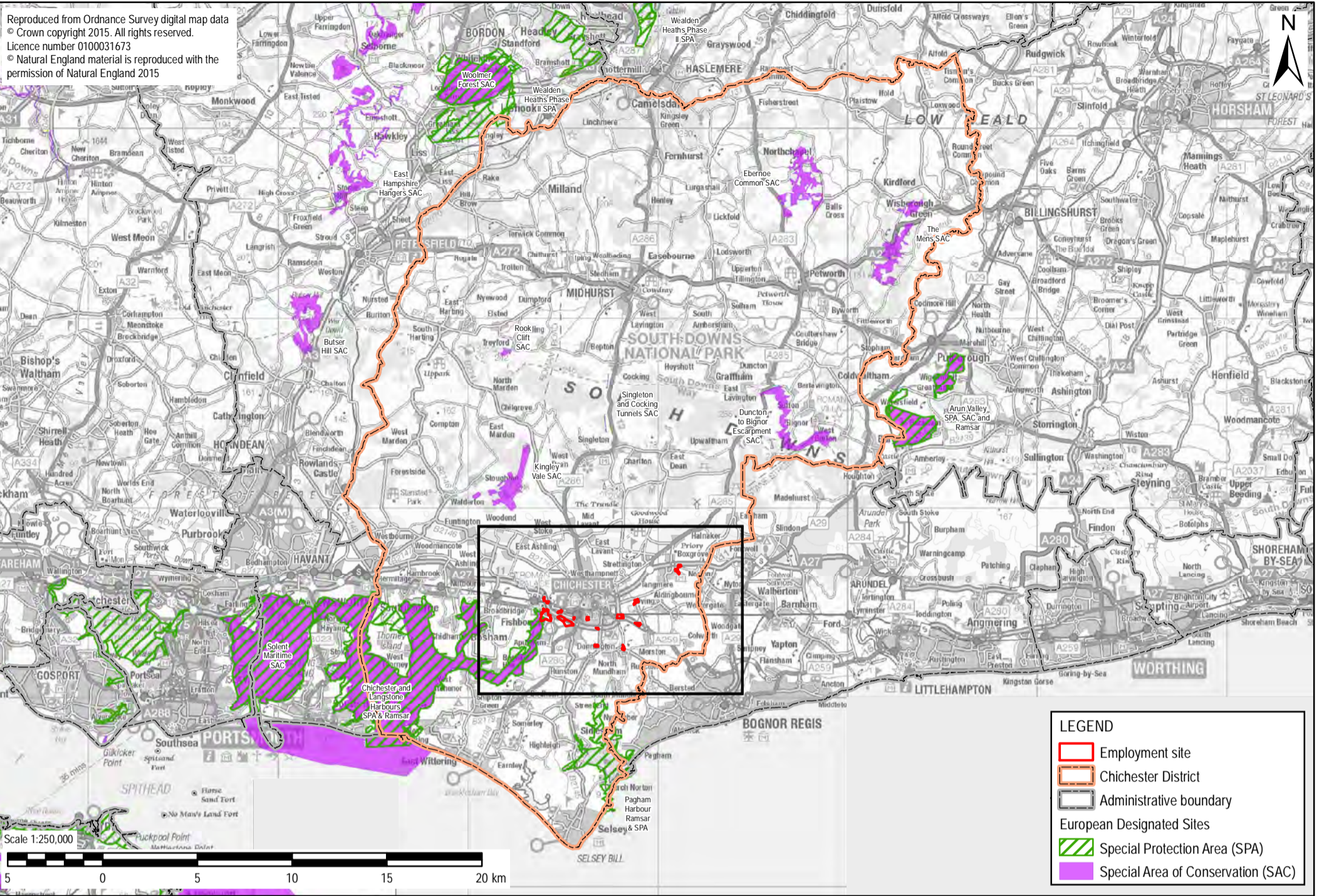
LEGEND

- SHLAA sites
- Chichester District
- Administrative boundary
- European Designated Sites
- Special Protection Area (SPA)
- Special Area of Conservation (SAC)
- Ramsar



Project Title/Drawing Title <h2 style="text-align: center;">CHICHESTER SITE ALLOCATIONS HRA</h2> <h3 style="text-align: center;">HOUSING SITES</h3>		Client <h2 style="text-align: center;">CHICHESTER DISTRICT COUNCIL</h2>			AECOM Scott House Alençon Link, Basingstoke Hampshire, RG21 7PP Telephone (01256) 310200 Fax (01256) 310201 www.aecom.com	
Drawn SJ	Checked BB	Approved JR				
Date 11/05/2016	Scale @ A3 1:100,000/1:50,000(Inset map)	Purpose of Issue DRAFT				
Drawing Number FIGURE 4B		Rev	THIS DOCUMENT HAS BEEN PREPARED PURSUANT TO AND SUBJECT TO THE TERMS OF AECOM'S APPOINTMENT BY ITS CLIENT. AECOM ACCEPTS NO LIABILITY FOR ANY USE OF THIS DOCUMENT OTHER THAN BY ITS ORIGINAL CLIENT OR FOLLOWING AECOM'S EXPRESS AGREEMENT TO SUCH USE, AND ONLY FOR THE PURPOSES FOR WHICH IT WAS PREPARED AND PROVIDED.			

File Name: K:\5004 - Information Systems\7065804 - Chichester Local Plan HRA\project_files\MXDs\Figure 4B Housing Sites.mxd



Project Title/Drawing Title		Client		AECOM	
CHICHESTER SITE ALLOCATIONS HRA		CHICHESTER DISTRICT COUNCIL		Scott House Alençon Link, Basingstoke Hampshire, RG21 7PP Telephone (01256) 310200 Fax (01256) 310201 www.aecom.com	
EMPLOYMENT SITES		Drawn TG	Checked SC	Approved JR	AECOM
		Date 13/10/2016	Scale @ A3 SEE MAP	Purpose of Issue DRAFT	
Drawing Number FIGURE 5		Rev		THIS DOCUMENT HAS BEEN PREPARED PURSUANT TO AND SUBJECT TO THE TERMS OF AECOM'S APPOINTMENT BY ITS CLIENT. AECOM ACCEPTS NO LIABILITY FOR ANY USE OF THIS DOCUMENT OTHER THAN BY ITS ORIGINAL CLIENT OR FOLLOWING AECOM'S EXPRESS AGREEMENT TO SUCH USE, AND ONLY FOR THE PURPOSES FOR WHICH IT WAS PREPARED AND PROVIDED.	

File Name: I:\35004 - Information Systems\47065804 - Chichester Local Plan HRA\project_files\MXDs\Figure 3 Employment Sites.mxd

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