



Winchester Local Plan

(Regulation 19)

Habitats Regulations Assessment Report

Winchester City Council

Final report

Prepared by LUC

July 2024

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Winchester Local Plan (Regulation 19)

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Chapter 1

Introduction

1.1 LUC has been commissioned by Winchester City Council to carry out a Habitats Regulations Assessment (HRA) of its emerging Local Plan.

1.2 The purpose of this report is to identify likely significant effects associated with the proposed development within the Local Plan and whether, when mitigation is taken into account, there will be adverse effects on the integrity of any Habitats Sites.

Background to the Local Plan

1.3 The current development plan comprises the Winchester City Council Part 1 Joint Core Strategy which was adopted 2013; Part 2 – Development Management and Site Allocations adopted by the Council in April 2017; and The Denmead Neighbourhood Plan, which was made in April. A further two Neighbourhood Plans are also in preparation, for Hursley and New Alresford. The final Development Plan Document (DPD) within the current Local Plan is the Gypsy, Traveller and Travelling Show people DPD, which was adopted February 2019. The new Local Plan will cover the period to 2040 and replace the existing Local Plans for Winchester District excluding the South Downs National Park, which has its own adopted Local Plan.

1.4 The City Council undertook an initial consultation in 2018 to gather feedback on key issues for the district to be addressed by the new Local Plan. Since then the Council has declared a climate emergency in June 2019 and is committed to becoming a carbon neutral council by 2024. The ambition for the wider district is that it should become carbon neutral by 2030. The target of achieving carbon neutrality must be fully woven into the local plan making process and any implications will need to be taken into account in the HRA.

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1.5 The council consulted on the initial Strategic Issues and Options in September 2020 and published the draft Local Plan for consultation ('Regulation 18') in November and December 2022. The Regulation 18 Habitats Regulations Assessment report was published alongside the Draft Plan for consultation. Following the Regulation 18 consultation and comments received in response to it, the Council has updated the Local Plan. The current version of the emerging Local Plan is the Proposed Submission (Regulation 19) version, which will be published as part of the Regulation 19 consultation. This iteration of the HRA report assesses the Proposed Submission version of the Local Plan and takes into account comments received in response to the Regulation 18 consultation (see Appendix C).

The requirement to undertake Habitats Regulations

Assessment of Development Plans

1.6 The requirement to undertake HRA of development plans was confirmed by the amendments to the Habitats Regulations published for England and Wales in 2007; the currently applicable version is the Habitats Regulations 2017, as amended. When preparing its new Local Plan, Winchester City Council (WCC) is therefore required by law to carry out an HRA. WCC can commission consultants to undertake HRA work on its behalf and this (the work documented in this report) is then reported to and considered by WCC as the 'competent authority'. WCC will consider this work and would usually only progress the Local Plan if it considers that the Plan will not adversely affect the integrity **[See reference 1]** of any Habitats Site (the exception to this would be where 'imperative reasons of overriding public interest' can be demonstrated; see paragraph 1.18). The requirement for authorities to comply with the Habitats Regulations when preparing a Local Plan is also noted in the Government's online Planning Practice Guidance **[See reference 2]** (PPG).

1.7 HRA refers to the assessment of the potential effects of a development plan on one or more sites afforded the highest level of protection in the UK: Special Protection Areas (SPAs) and Special Areas of Conservation (SACs). These were classified under European Union (EU) legislation but, since 1 January

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2021, are protected in the UK by the Habitats Regulations 2017 (as amended). Although the EU Directives from which the UK's Habitats Regulations originally derived are no longer binding, the Regulations still make reference to the lists of habitats and species that the sites were designated for, which are listed in annexes to the EU Directives:

- SACs are designated under the Habitats Regulations and target particular habitat types (specified in Annex 1) and species (Annex II). The listed habitat types and species (excluding birds) are those considered to be most in need of conservation at a European level. Designation of SACs also has regard to the threats of degradation or destruction to which the sites are exposed and, before EU exit day, to the coherence of the Natura 2000 network of European sites. After EU exit day, regard is had to the importance of such sites for the coherence of the national site network.
- SPAs are classified in accordance with Article 4(1) of the European Union Birds Directive [See reference 3] for rare and vulnerable birds (Annex I), and under Article 4(2) for regularly occurring migratory species not listed in Annex I.

1.8 The term 'European sites' was previously commonly used in HRA to refer to 'Natura 2000' sites [See reference 4] and Ramsar sites (international designated under the Ramsar Convention). However, a Government Policy Paper [See reference 5] on changes to the Habitats Regulations 2017 post-Brexit states that:

- Any references to Natura 2000 in the 2017 Regulations and in guidance now refers to the new 'national site network'.
- The national site network includes existing SACs and SPAs; and new SACs and SPAs designated under these Regulations.
- Designated Wetlands of International Importance (known as Ramsar sites) do not form part of the national site network. Many Ramsar sites overlap with SACs and SPAs and may be designated for the same or different species and habitats.

1.9 Although Ramsar sites do not form part of the new national site network, Government guidance [See reference 6] states that:

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“Any proposals affecting the following sites would also require an HRA because these are protected by government policy:

- proposed SACs
- potential SPAs
- Ramsar sites - wetlands of international importance (both listed and proposed)
- areas secured as sites compensating for damage to a European site.”

1.10 Furthermore, the NPPF [\[See reference 7\]](#) and good practice guidance [\[See reference 8\]](#) currently state that competent authorities responsible for carrying out HRA should treat Ramsar sites in the same way as SACs and SPAs. The legislative requirement for HRA does not apply to other nationally designated wildlife sites such as Sites of Special Scientific Interest or National Nature Reserves.

1.11 For simplicity, and in line with common usage, this report uses the term 'Habitats Sites' to refer to all types of designated site within the 'national site network' for which Government guidance [\[See reference 9\]](#) requires an HRA. This is also reflected in the Proposed Submission Local Plan.

1.12 The overall purpose of an HRA is to conclude whether or not a proposal or policy, or whole development plan would adversely affect the integrity of the site in question. This is judged in terms of the implications of the plan for a site's 'qualifying features' (i.e. those Annex I habitats, Annex II species, and Annex I bird populations for which it has been designated). Significantly, HRA is based on the precautionary principle. Where uncertainty or doubt remains, an adverse effect should be assumed.

Stages of HRA

1.13 The HRA of development plans is undertaken in stages (as described below) and should conclude whether or not a proposal would adversely affect the integrity of the Habitats Site in question.

1.14 LUC has been commissioned by WCC to carry out HRA work on the Council's behalf, and the outputs will be reported to and considered by WCC, as the competent authority, before adopting the Plan.

1.15 The HRA also requires close working with Natural England as the statutory nature conservation body [See reference 10] in order to obtain the necessary information, agree the process, outcomes and mitigation proposals. The Environment Agency, while not a statutory consultee for the HRA, is also in a strong position to provide advice and information throughout the process as it is required to undertake HRA for its existing licences and future licensing of activities.

Requirements of the Habitats Regulations

1.16 In assessing the effects of a Local Plan in accordance with Regulation 105 of the Conservation of Habitats and Species Regulations 2017 (as amended) (the 'Habitats Regulations'), there are potentially two tests to be applied by the competent authority: a 'Significance Test' followed, if necessary, by an Appropriate Assessment which would inform the 'Integrity Test'. The relevant sequence of questions is as follows:

- Step 1: Under Reg. 105(1)(b), consider whether the plan is directly connected with or necessary to the management of the sites. If not, proceed to Step 2.
- Step 2: Under Reg. 105(1)(a) consider whether the plan is likely to have a significant effect on a European site, either alone or in combination with other plans or projects (the 'Significance Test'). If yes, proceed to Step 3.

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1.17 [Steps 1 and 2 are undertaken as part of Stage 1: HRA Screening, described in 'typical stages', below.]

- Step 3: Under Reg. 105(1), make an Appropriate Assessment of the implications for the European site in view of its current conservation objectives (the 'Integrity Test'). In so doing, it is mandatory under Reg. 105(2) to consult Natural England, and optional under Reg. 105(3) to take the opinion of the general public.

1.18 [This step is undertaken during Stage 2: Appropriate Assessment, described in 'typical stages', below.]

- Step 4: In accordance with Reg. 105(4), but subject to Reg. 107, give effect to the land use plan only after having ascertained that the plan would not adversely affect the integrity of a European site.

1.19 [This step follows Stage 2 where a finding of 'no adverse effect' is concluded. If it cannot be it proceeds to Step 5 as part of Stage 3 of the HRA process]

- Step 5: Under Reg. 107, if Step 4 is unable to rule out adverse effects on the integrity of a European site and no alternative solutions exist then the competent authority may nevertheless agree to the plan or project if it must be carried out for 'imperative reasons of overriding public interest' (IROPI).

1.20 [This step is undertaken during Stage 3: Assessment where no alternatives exist and adverse impacts remain, taking into account mitigation described in 'typical stages' below.]

Typical stages

1.21 The section summarises the stages and associated tasks and outcomes typically involved in carrying out a full HRA of a development plan, based on various guidance documents [\[See reference 11\]](#), [\[See reference 12\]](#), [\[See reference 13\]](#).

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1.22 It is normally anticipated that an emphasis on Stages 1 and 2 of this process will, through a series of iterations, help ensure that potential adverse effects are identified and eliminated through the inclusion of mitigation measures designed to avoid or reduce effects. The need to consider alternatives could imply more onerous changes to a plan document. It is generally understood that so called ‘imperative reasons of overriding public interest’ (IROPI) are likely to be justified only very occasionally and would involve engagement with the Government.

Stage 1: HRA Screening

1.23 Tasks at this stage:

- Description of the development plan and confirmation that it is not directly connected with or necessary to the management of European sites.
- Identification of potentially affected European sites and their conservation objectives **[See reference 14]**.
- Assessment of likely significant effects of the development plan alone or in combination with other plans and projects, prior to consideration of avoidance or reduction (‘mitigation’) measures **[See reference 15]**.

1.24 Outcome of this stage:

- Where effects are unlikely, prepare a ‘finding of no significant effect report’.
- Where effects judged likely, or lack of information to prove otherwise, proceed to Stage 2.

Stage 2: Appropriate Assessment

1.25 This stage is undertaken when Stage 1 does not result out likely significant effects.

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1.26 Tasks at this stage:

- Information gathering (development plan and European Sites [See reference 16]).
- Impact prediction.
- Evaluation of development plan impacts in view of conservation objectives of European sites.
- Where impacts are considered to directly or indirectly affect qualifying features of European sites, identify how these effects will be avoided or reduced ('mitigation').

1.27 Outcome of this stage:

- Appropriate assessment report describing the plan, European site baseline conditions, the adverse effects of the plan on the European site, how these effects will be avoided or reduced, including the mechanisms and timescale for these mitigation measures.
- If effects remain after all alternatives and mitigation measures have been considered proceed to Stage 3.

Stage 3: Assessment where no alternatives exist and adverse impacts remain taking into account mitigation

1.28 Tasks at this stage:

- Identify 'imperative reasons of overriding public interest' (IROPI).
- Demonstrate no alternatives exist.
- Identify potential compensatory measures.

1.29 Outcome of this stage:

- This stage should be avoided if at all possible. The test of IROPI and the requirements for compensation are extremely onerous.

Case law

1.30 This HRA has been prepared in accordance with relevant case law findings, including most notably the ‘People over Wind’ and ‘Holohan’ rulings from the Court of Justice for the European Union (CJEU).

1.31 The People over Wind, Peter Sweetman v Coillte Teoranta (April 2018) judgment ruled that Article 6(3) of the Habitats Directive should be interpreted as meaning that mitigation measures should be assessed as part of an Appropriate Assessment and should not be taken into account at the screening stage. The precise wording of the ruling is as follows:

“Article 6(3)must be interpreted as meaning that, in order to determine whether it is necessary to carry out, subsequently, an appropriate assessment of the implications, for a site concerned, of a plan or project, it is not appropriate, at the screening stage, to take account of measures intended to avoid or reduce the harmful effects of the plan or project on that site.

1.32 In light of the above, the HRA screening stage does not rely upon avoidance or mitigation measures to draw conclusions as to whether the Local Plan could result in likely significant effects on European sites, with any such measures being considered at the Appropriate Assessment stage as relevant.

1.33 This HRA also fully considers the Holohan v An Bord Pleanala (November 2018) judgement which stated that:

Article 6(3) of Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora must be interpreted as meaning that an ‘appropriate assessment’ must, on the one hand, catalogue the entirety of habitat types and species for which a site is

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protected, and, on the other, identify and examine both the implications of the proposed project for the species present on that site, and for which that site has not been listed, and the implications for habitat types and species to be found outside the boundaries of that site, provided that those implications are liable to affect the conservation objectives of the site.

Article 6(3) of Directive 92/43 must be interpreted as meaning that the competent authority is permitted to grant to a plan or project consent which leaves the developer free to determine subsequently certain parameters relating to the construction phase, such as the location of the construction compound and haul routes, only if that authority is certain that the development consent granted establishes conditions that are strict enough to guarantee that those parameters will not adversely affect the integrity of the site.

Article 6(3) of Directive 92/43 must be interpreted as meaning that, where the competent authority rejects the findings in a scientific expert opinion recommending that additional information be obtained, the 'appropriate assessment' must include an explicit and detailed statement of reasons capable of dispelling all reasonable scientific doubt concerning the effects of the work envisaged on the site concerned.

1.34 In undertaking this HRA, LUC has fully considered the potential for effects on species and habitats, including those not listed as qualifying features, to result in secondary effects upon the qualifying features of European sites, including the potential for complex interactions and dependencies. In addition, the potential for offsite impacts, such as through impacts to functionally linked land, and or species and habitats located beyond the boundaries of European site, but which may be important in supporting the ecological processes of the qualifying features, has also been fully considered in this HRA.

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1.35 In addition to this, the HRA has taken into consideration the ‘Wealden’ judgement and the ‘Dutch Nitrogen Case’ judgements from the Court of Justice for the European Union.

1.36 Wealden District Council v Secretary of State for Communities and Local Government, Lewes District Council and South Downs National Park Authority (2017) ruled that it was not appropriate to scope out the need for a detailed assessment for an individual plan or project based on the annual average daily traffic (AADT) figures detailed in the Design Manual for Roads and Bridges or the critical loads used by Defra or Environmental Agency without considering the in-combination impacts with other plans and projects.

1.37 In light of this judgement, the HRA therefore considers traffic growth based on the effects of development from the Local Plan in combination with other drivers of growth such as development proposed in neighbouring districts and demographic change.

1.38 The 2018 ‘Coöperatie Mobilisation for the Environment and Vereniging Leefmilieu (Dutch Nitrogen)’ judgement stated that:

“May the positive effects of the autonomous decrease in the nitrogen deposition ... be taken into account in the appropriate assessment..., it is important that the autonomous decrease in the nitrogen deposition be monitored and, if it transpires that the decrease is less favourable than had been assumed in the appropriate assessment, that adjustments, if required, be made.”

1.39 The Dutch Nitrogen judgement also states that according to previous case law:

“...it is only when it is sufficiently certain that a measure will make an effective contribution to avoiding harm to the integrity of the site concerned,

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by guaranteeing beyond all reasonable doubt that the plan or project at issue will not adversely affect the integrity of that site, that such a measure may be taken into consideration in the ‘appropriate assessment’ within the meaning of Article 6(3) of the Habitats Directive”.

1.40 The HRA of the Local Plan therefore only considers the existence of conservation and/or preventative measures if the expected benefits of those measures are certain at the time of the assessment. If a threshold approach is applied, it is necessary to consider the risk of significant effects being produced even if below the threshold values to ensure that there is no adverse effect on integrity of the European sites

Previous HRA Work

1.41 A HRA Scoping Report was prepared in July 2020, which set out the proposed methodology for the HRA of the Local Plan and identified key impact pathways that would require assessment. This was published alongside the Local Plan Issues & Options consultation in early 2021.

1.42 The HRA of the Draft Local Plan (October 2022) was a full HRA Screening and Appropriate Assessment of the plan’s policies and site allocations, which was published as part of the Local Plan Regulation 18 consultation in late 2022.

1.43 Natural England’s comments on the Scoping Report and Reg.18 HRA are set out in **Appendix C** and have been taken into account in this iteration of the HRA.

Structure of the HRA report

1.44 This chapter has introduced the requirements to undertake the HRA of the Winchester Local Plan. The remainder of the report is structured as follows:

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- Chapter 2: Winchester Local Plan summarises the content of the plan that is the subject of this report.
- Chapter 3: Approach to the HRA sets out the methodology followed during the screening and Appropriate Assessment stages of the HRA.
- Chapter 4: HRA Screening describes the findings of the screening stage of the HRA.
- Chapter 5: Appropriate Assessment sets out the findings of the Appropriate Assessment stage of the HRA.
- Chapter 6: Conclusions and next steps summarises the HRA conclusions for the Proposed Submission (Regulation 19) Local Plan and describes the next steps to be undertaken.
- Appendix A: Attributes of Habitats Sites assessed lists relevant features of the SACs, SPAs and Ramsar sites.
- Appendix B: HRA Screening sets out the results of the screening stage for each Local Plan policy and site allocation.
- Appendix C: Record of Consultation sets out comments from key stakeholders and how have been addressed.
- Appendix D: provides the nutrient budget calculations prepared by Winchester Council.

Chapter 2

Winchester Local Plan

2.1 The Winchester Local Plan will cover the period to 2040 and replace the existing Local Plans for Winchester District, excluding areas that fall within the South Downs National Park, which has its own adopted Local Plan.

Content of the Winchester District Proposed Submission Local Plan

2.2 Strategic Policy (SP1) of the Winchester Local Plan is committed to the delivery of a vision for the District, and its supporting objectives; set out below.

Local Plan Vision

“Winchester District has unique natural, cultural and historic assets which means it is an attractive place to live, work and visit. The need to adapt to, improve resilience to and mitigate climate change is being responded to. The challenges of changes to the environment, economy and lifestyles will be met in a positive manner. The natural beauty, biodiversity and cultural heritage will be enhanced. Key assets such as chalk streams and the setting of the national park will be protected.

New development will address the needs of the area and enhance the sustainability of communities, natural environment and the economy and respond to the wider relationship with neighbouring areas. The climate emergency will lead to energy efficiency standards ensuring that residential development is built to net zero.”

Objectives

2.3 The vision for Winchester will be delivered by the application of a number of objectives and policies. The objectives have been developed from the previous adopted Plan, taking into account the revised vision. These are:

- **Tackling the climate emergency and creating a greener district:** This includes embedding energy efficiency standards within the plan, the prioritisation of development on brownfield land and implementing high quality design, maintaining and enhancing Winchester's valuable environments, ensuring development is designed to provide biodiversity net gain and does not have an adverse impact on the South Downs National Park, provide and enhance green/blue infrastructure, mitigate and adapt to the effects of the climate emergency and maximise the use of low carbon infrastructure and construction methods.
- **Living well:** Aims to promote health, improve air quality, deliver inclusive communities with suitable infrastructure, services and employment, and supporting measures which encourage sustainable and active transport.
- **Homes for all:** Aims to deliver high quality housing to meet local needs.
- **Vibrant local economy:** Aims to ensure the economy is able to grow and respond to the legacy of Covid-19, identify sufficient sites to meet business needs, support the cultural and visitor economy including Winchester City and the South Downs National Park, and support green growth and a low-carbon economy.

2.4 Alongside setting out the vision, and three general strategic policies for the District, the draft Local Plan is structured into a number of topic chapters which set out topic-specific issues, aims, strategic and non-strategic policies. These are:

- Carbon Neutrality and Designing for Low Carbon Infrastructure (8 policies);
- High Quality Well-Designed Places and Living Well (10 policies);
- Sustainable Transport and Active Travel (4 policies);

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- Biodiversity and the Natural Environment (17 policies);
- The Historic Environment (14 policies);
- Homes for All (18 policies); and
- Creating a Vibrant Economy (11 policies).

Quantum of development

2.5 Local Plan Chapter 9: 'Homes for All' of the Local Plan makes provision for the development of approximately 15,465 dwellings (net) over the plan period, prioritising suitable previously-developed land within defined settlement boundaries, strategic allocations at Kings Barton (Major Development Area, North Winchester), Berewood (West of Waterlooville) and North Whiteley. Housing development will be distributed between:

- Winchester Town (5,640 dwellings);
- South Hampshire Urban Areas (5,650 dwellings); and
- Market Towns and Rural Area (3,825 dwellings, of which 350 to be delivered in South Downs National Park Local Plan area).

2.6 Local Plan Chapter 10: 'Vibrant Economy' sets out the spatial strategies for economic development in different parts of the plan area. The Employment Land Review has identified a need for 27.6ha-37.8ha of employment land for the Winchester Plan area, which will be accommodated by a combination of site allocations, making provision for an estimated 39.36ha of employment land and the following spatial approach:

- Within Winchester Town (Bushfield Camp (Policy W5) – About 20ha of new employment land; Winnall (Policy W6); Central Winchester Regeneration Scheme (Policy W7); and Station Approach Regeneration Area (Policy W8); plus some employment development as part of Kings Barton Major Development Area (Policy W1)).
- South Hampshire Urban Area (Solent Business Park (Policy SH4), West of Waterlooville (Policy SH1); and,

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- Market Towns and Rural Areas (Tollgate Sawmill (Policy BW3), plus employment development as part of major housing allocations: Sun Lane, New Alresford (Policy NA2), Morgans Yard, Waltham Chase (WC1)).

Allocated sites

2.7 The following allocated sites have been assessed in this HRA.

Table 2.1: Allocated sites

Policy reference	Site name	Type of site (main uses)
BW1	The Vineyard/Tangier Lane	Residential
BW2	Albany Farm	Residential
BW3	Tollgate Sawmill	Residential
BW4	Land north of Rareridge Lane	Residential
CC1	Clayfield Park	Residential
CC2	Colden Common Farm	Residential
CC3	Land at Main Road	Residential
CC4	Land adjoining 85 Church Lane	Residential
D1	Denmead Neighbourhood Plan	Residential
H16	The Nurseries	Residential
H18	Tynfield	Residential
KN1	Ravenswood	Residential
KW1	Cornerways and Merrydale	Residential
KW2	Land adjoining Cart and Horses PH	Residential
HU1	Hursley Neighbourhood Plan	Residential

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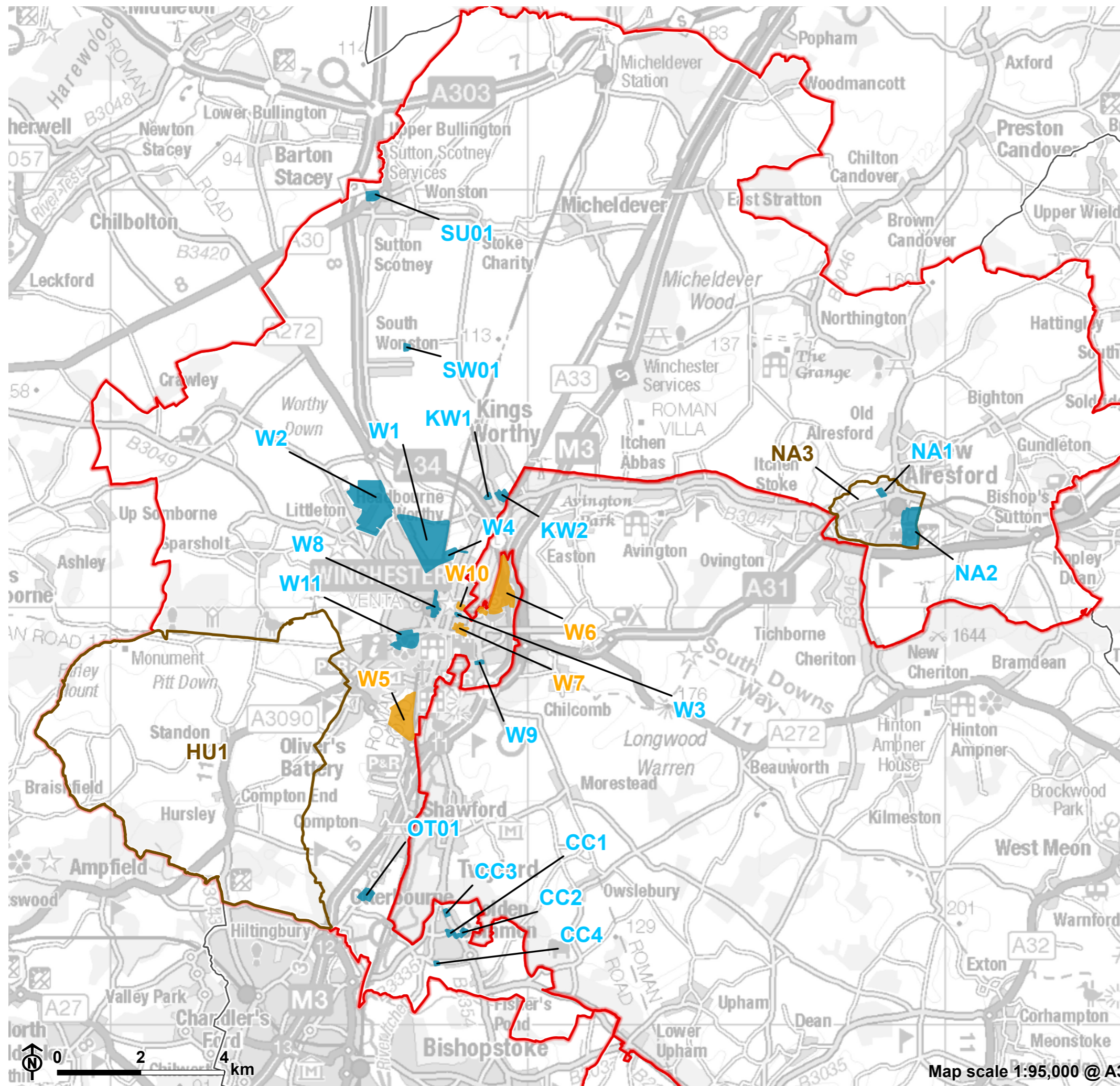
Policy reference	Site name	Type of site (main uses)
NA1	The Dean	Residential
NA2	Sun Lane	Residential Employment Burial ground
NA3	Alresford Neighbourhood Plan	Residential
OTO1	Land Off Main Road Otterbourne	Residential
SH1	West of Waterlooville Newlands	Residential Employment
SH2	North Whiteley	Residential
SH3	Whiteley Green	Residential Education
SH4	Solent 1 Business Park	Employment
SH6	Botley Bypass	Transport
SU01	Brightlands, Sutton Scotney	Residential
SW1	The Lakes	Residential
SWO1	Land at West Hill Road North	Residential
W1	Barton Farm	Residential Employment
W2	Sir John Moore Barracks	Residential Park & ride
W3	St Peter's Car Park	Residential
W4	Courtenay Road	Residential
W5	Bushfield Camp	Employment Education
W6	Winnall	Employment

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Policy reference	Site name	Type of site (main uses)
W7	Central Winchester Regeneration Scheme	Residential Employment
W8	Station Approach	Employment Residential
W9	Bar End Depot	Residential Employment
W10	River Park Leisure Centre	Employment Education
W11	University Hospital Area	Residential
WC1	Morgans Yard	Residential Employment
WK1	Winchester Road	Residential
WK3	Welborne	Open space
WK5	Land at Junction of Mill Lane	Residential
WK6	Land at Southwick Road / School Road	Residential



Figure 2.1a: Allocated Sites (North)

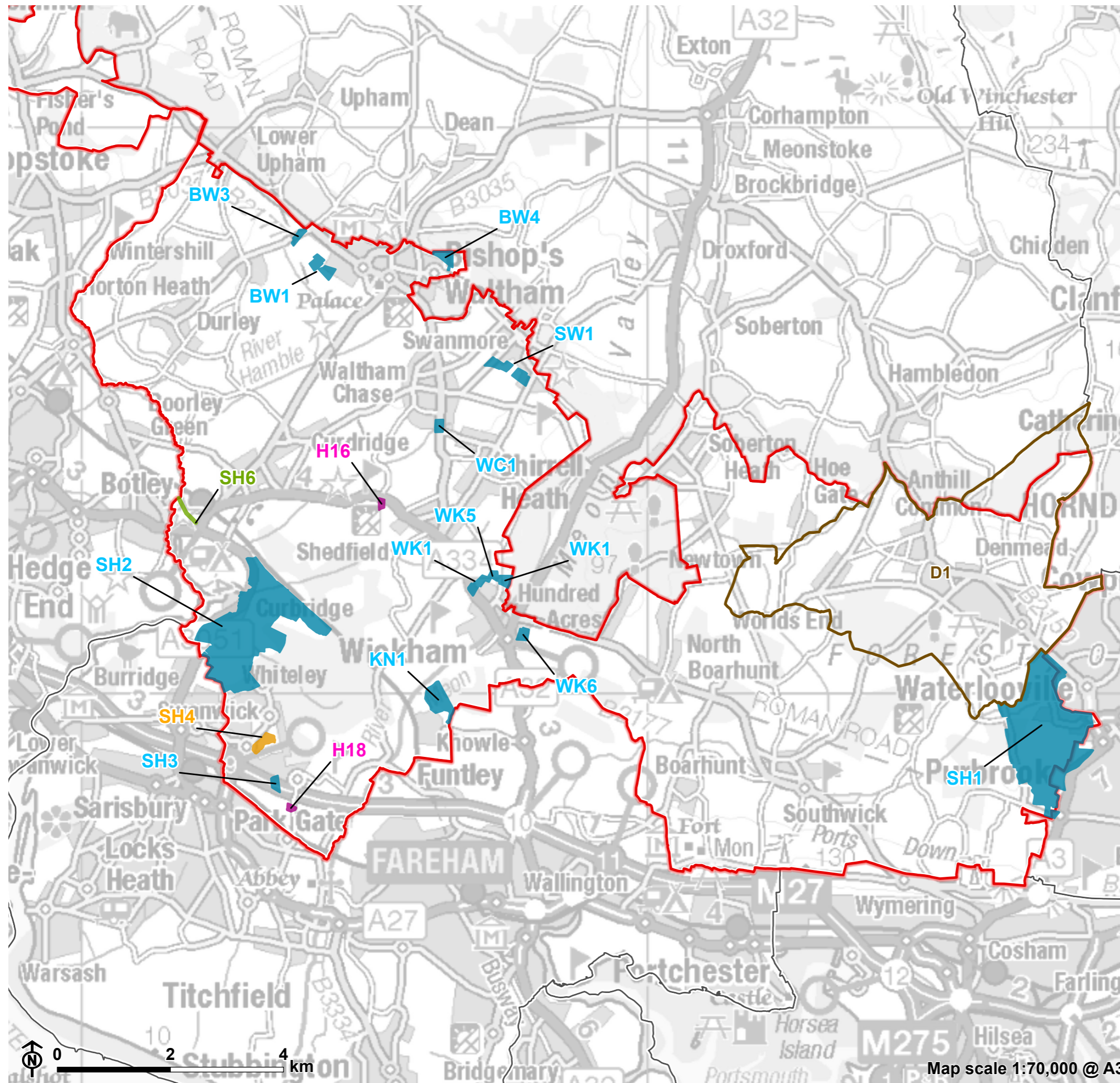


- Local Plan area
- Local Authority boundary
- Neighbourhood Plan Designated Area
- Allocated Site**
- Employment
- Residential / residential-led mixed use

Map scale 1:95,000 @ A3



Figure 2.1b: Allocated Sites (South)



- Local Plan area
- Local Authority boundary
- Neighbourhood Plan Designated Area
- Allocated Site**
 - Employment
 - Gypsy and Traveller
 - Land safeguarded for road infrastructure
 - Residential / residential-led mixed use

Chapter 3

Approach to the HRA

3.1 This chapter describes the method that has been taken in the HRA of the Local Plan throughout its development, including the specific tasks that have been undertaken and the assumptions that underpin the HRA judgements made.

Screening assessment

3.2 HRA Screening of the plan has been undertaken in line with current available guidance and seeks to meet the requirements of the Habitats Regulations. The tasks that have been undertaken during the screening stage of the HRA and the conclusions reached are described in detail below.

3.3 The purpose of the screening stage is to:

- Identify all aspects of the plan which would have no effect on a Habitats Site, so that that they can be eliminated from further consideration in respect of this and other plans;
- Identify all aspects of the plan which would not be likely to have a significant effect on a Habitats Site (i.e. would have some effect, because of links/connectivity, but which are not significant), either alone or in combination with other aspects of the same plan or other plans or projects, which therefore do not require 'appropriate assessment'; and
- Identify those aspects of the plan where it is not possible to rule out the risk of significant effects on a Habitats Site, either alone or in combination with other plans or projects. This provides a clear scope for the parts of the plan that will require appropriate assessment.

Identification of Habitats Sites that may be affected by the Plan

3.4 In order to initiate the search of Habitats Sites that could potentially be affected by the Local Plan, it is established practice in HRAs to consider Habitats Sites within the local planning authority area covered by a plan, and also within a buffer distance from the boundary of the plan area.

3.5 A distance of 15km has been used as a starting point to identify Habitats Sites likely to be affected by impacts relating to development within the Plan area. In addition to this, consideration has also been given to Habitats Sites connected to the plan area beyond this distance, for example through hydrological pathways or emissions from major roads.

3.6 Impacts from development in areas outside of the Habitats Site boundaries may also occur where habitat contributes towards maintaining the interest feature for which the Habitats Site is designated (known as 'functionally linked land'). This includes land which may provide offsite foraging and roosting habitat for birds.

3.7 Habitats Sites within 15km of the Plan area are set out below and shown on **Figure 3.1**. Further information on each site is set out **Appendix A**. No sites beyond 15km are considered to have potentially significant connectivity to the Plan area.

3.8 Habitats Sites within the Plan area:

- River Itchen SAC;
- Solent & Southampton Water SPA/Ramsar; and
- Solent Maritime SAC.

3.9 Natural England has also confirmed (see Appendix C) that following changes to Southern Water abstraction licences and to protect the River Itchen Special Area of Conservation (SAC), compensatory measures have been

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agreed between the Environment Agency, Natural England and Southern Water. The River Meon is being considered as compensatory habitat for Atlantic Salmon and chalk stream habitat; and the River Dever (River Test catchment) is being considered as compensatory habitat for chalk stream habitat.

3.10 A map is not currently available for the areas covered by the River Meon Compensatory SAC Habitat and the River Test Compensatory SAC Habitat, but the area considered for compensation currently includes the whole River Meon catchment including the winterbourne channels and the whole of the River Dever including the winterbourne channels. Once the locations are confirmed, this will have the effect of applying the Habitats Regulations to those compensatory habitats in line with UK policy; however, as this is not currently confirmed, the Compensatory SAC Habitats do not require assessment in this HRA.

3.11 Habitats Sites within 5km of the Plan area:

- Chichester & Langstone Harbours SPA/Ramsar (c.2.3km away);
- Emer Bog SAC (c.2.4km away);
- Portsmouth Harbour SPA (c.1.2km away);
- Solent & Dorset Coast SPA (c.1.2km away); and
- Solent & Isle of Wight Lagoons SAC (c.3.0km away).

3.12 Habitats Sites within 10km of the Plan area:

- Butser Hill SAC (c.5.3km away);
- East Hampshire Hangers SAC (c.7.9km away); and
- Mottisfont Bats SAC (c.6.0km away).

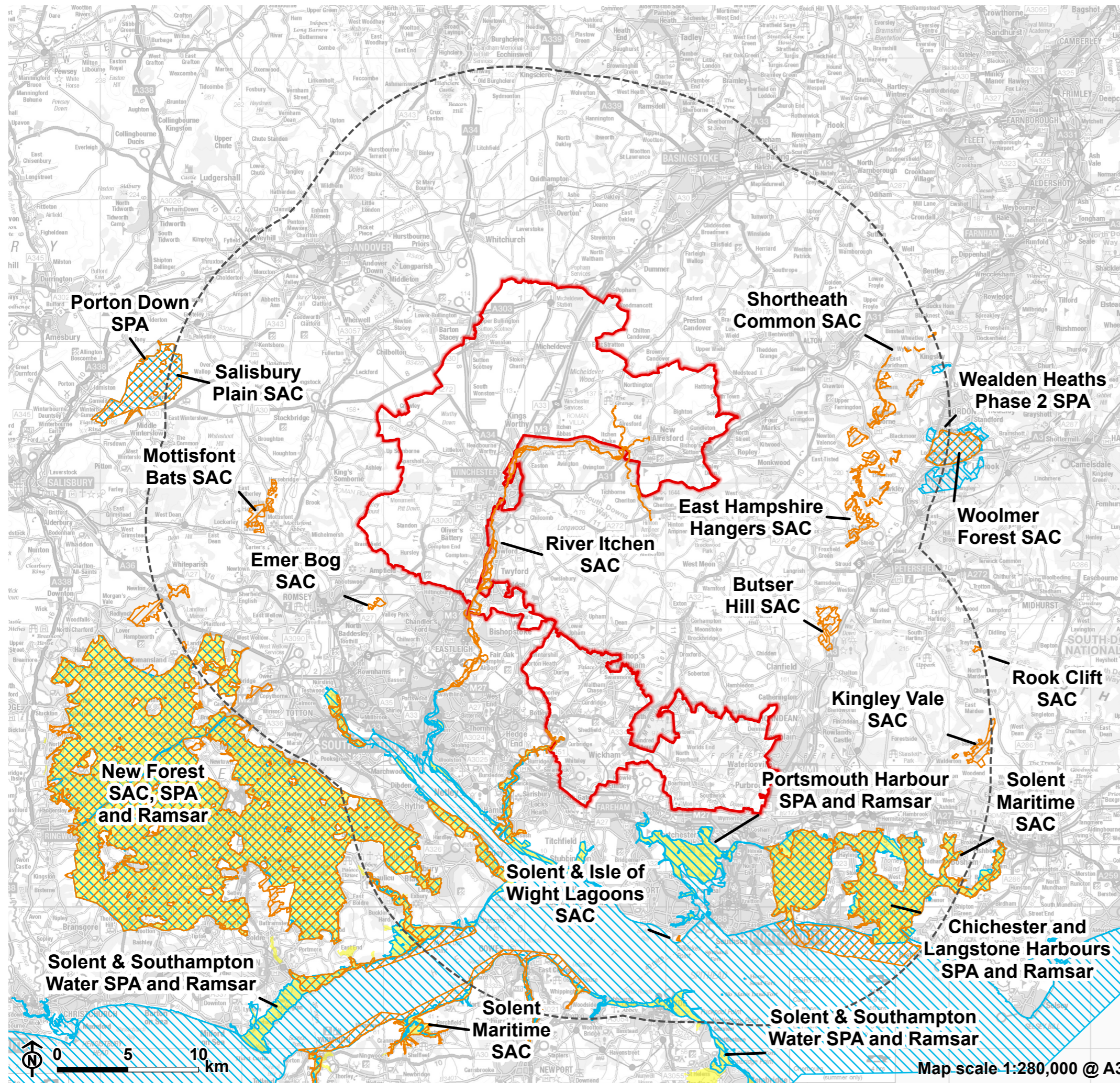
3.13 Habitats Sites within 15km of the Plan area:

- Kingley Vale SAC (c.12.3km away);
- New Forest SAC/SPA/ Ramsar (c.10.5km away);

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- Porton Down SPA (c.14.0km away);
- Rook Clift SAC (c.14.4km away);
- Salisbury Plain SAC (c.14.0km away);
- Shortheath Common SAC (c.12.0km away);
- Wealden Heaths Phase 2 SPA (c.14.2km away); and
- Woolmer Forest SAC (c.13.6km away).

Figure 3.1: Location of European Sites in Relation to the Plan Area



- Local Plan area
- 15km buffer from the Local Plan area
- Ramsar
- Special Area of Conservation (SAC)
- Special Protection Area (SPA)

3.14 The designated features and conservation objectives of the Habitats Sites, together with current pressures and potential threats, was established using Data Forms for SACs and SPAs [See reference 17] and Information Sheets for Ramsar Wetlands published on the JNCC website [See reference 18], as well as Natural England’s Site Improvement Plans [See reference 19], Supplementary Advice Notes [See reference 20] and the most recent conservation objectives published on the Natural England website [See reference 21]). This analysis enabled Habitats Site interest features to be identified, along with the features of each Habitats Site which determine site integrity and the specific sensitivities and threats facing the site. This information was then used to inform an assessment of how the potential impacts of the Local Plan may result in likely significant effects on each of the Habitats Sites in question, either alone or in-combination.

Functionally linked land (FLL)

3.15 The term ‘functional linkage’ can be used to refer to the role or ‘function’ that land beyond the boundary of a Habitats Site might fulfil in terms of supporting the populations for which the site was designated or classified. Such an area is therefore ‘linked’ to the site in question because it provides a (potentially important) role in maintaining or restoring a protected population at favourable conservation status.

3.16 Whilst the boundary of a Habitats Site will usually be drawn to include key supporting habitat for a qualifying species, this cannot always be the case where the population for which a site is designated or classified is particularly mobile. Individuals of the population will not necessarily remain in the site all the time. Sometimes, the mobility of qualifying species is considerable and may extend so far from the key habitat that forms the SAC or SPA that it would be entirely impractical to attempt to designate or classify all of the land or sea that may conceivably be used by the species.

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3.17 Damage or loss of off-site habitat (i.e. land outside Habitats Sites that is functionally linked as it may be used by the qualifying species of a site) is more likely to be an issue for highly mobile species, particularly birds and bats. The potential for FLL within the Plan area has therefore been considered for all Habitats Sites with mobile qualifying species.

Assessment of 'likely significant effect'

3.18 As required under Regulation 105 of The Conservation of Habitats and Species Regulations 2017 [See reference 22] (as amended) (the 'Habitats Regulations'), an assessment has been undertaken of the 'likely significant effects' of the Plan. The assessment has been prepared in order to identify which policies or site allocations would be likely to have a significant effect on Habitats Sites.

3.19 Consideration has been given to the potential for the development proposed to result in significant effects associated with:

- Physical loss of/damage to habitat;
- Non-physical disturbance (noise, vibration and light);
- Non-toxic contamination;
- Air pollution;
- Recreation pressure; and
- Changes to hydrology including water quality and quantity.

3.20 A risk-based approach involving the application of the precautionary principle is adopted in the assessment, such that a conclusion of 'no significant effect' has only been reached where it is considered very unlikely, based on current knowledge and the information available, that a proposal in the Local Plan would have a significant effect on the integrity of a Habitats Site.

Interpretation of ‘Likely Significant Effect’

3.21 Relevant case law helps to interpret when effects should be considered as a Likely Significant Effect (LSE), when carrying out HRA of a land use plan.

3.22 In the Waddenzee case [See reference 23], the European Court of Justice ruled on the interpretation of Article 6(3) of the Habitats Directive (translated into Reg. 102 in the Habitats Regulations), including that:

3.23 An effect should be considered ‘likely’, “if it cannot be excluded, on the basis of objective information, that it will have a significant effect on the site” (para 44). An effect should be considered ‘significant’, “if it undermines the conservation objectives” (para 48). Where a plan or project has an effect on a site “but is not likely to undermine its conservation objectives, it cannot be considered likely to have a significant effect on the site concerned” (para 47).

3.24 An opinion delivered to the Court of Justice of the European Union [See reference 24] commented that:

“The requirement that an effect in question be ‘significant’ exists in order to lay down a de minimis threshold. Plans or projects that have no appreciable effect on the site are thereby excluded. If all plans or projects capable of having any effect whatsoever on the site were to be caught by Article 6(3), activities on or near the site would risk being impossible by reason of legislative overkill.”

3.25 This opinion (the ‘Sweetman’ case) therefore allows for the authorisation of plans and projects whose possible effects, alone or in combination, can be considered ‘trivial’ or de minimis; referring to such cases as those “which have no appreciable effect on the site”. In practice such effects could be screened out as having no Likely Significant Effect; they would be ‘insignificant’.

3.26 The HRA screening assessment therefore considers whether the Local Plan policies could have likely significant effects either alone or in combination.

In-combination effects

3.27 Regulation 105 of the Habitats Regulations 2017 requires an Appropriate Assessment where “a land use plan is likely to have a significant effect on a Habitats Site (either alone or in combination with other plans or projects) and is not directly connected with or necessary to the management of the site”. Therefore, it will be necessary to consider whether any impacts identified from the Local Plan may combine with other plans or projects to give rise to significant effects in-combination.

3.28 Where the Local Plan is likely to have an effect on its own e.g. due to water pollution (due to impact pathways being present), but it is not likely to be significant, the in-combination assessment at Screening stage needs to determine whether there may also be the same types of effect from other plans or projects that could combine with the Local Plan to produce a significant effect. If so, this likely significant effect (e.g. water pollution) arising from the Local Plan in combination with other plans or projects, would then need to be considered through the Appropriate Assessment stage to determine if water pollution would have an adverse effect on integrity of the relevant Habitats Site. Where the screening assessment has concluded that there is no impact pathway between development proposed in the Local Plan and the conditions necessary to maintain qualifying features of a Habitats Site, then there will be no in-combination effects to assess at the Screening or Appropriate Assessment stage. This approach accords with recent guidance on HRA in the HRA Handbook [\[See reference 25\]](#).

3.29 If impact pathways are found to exist for a particular effect but it is not likely to be significant from the Local Plan alone, the in-combination assessment will identify which other plans and programmes could result in the same impact on the same Habitats Site. This will focus on planned growth (including housing, employment, transport, minerals and waste) around the affected site, or along

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the impact corridor, for example, if impacts could arise as a result of changes to a waterway, then planned growth in local authorities along that waterway will be considered.

3.30 The potential for in-combination impacts will therefore focus on plans prepared by local authorities that overlap with Habitats Sites that are within the scope of this HRA. The findings of any associated HRA work for those plans will be reviewed where available. Where relevant, any strategic projects in the area that could have in-combination effects with the Local Plan will also be identified and reviewed.

3.31 The online HRA Handbook suggests the following plans and projects may be relevant to consider as part of the in-combination assessment:

- Applications lodged but not yet determined, including refusals subject to an outstanding appeal or legal challenge;
- Projects subject to periodic review e.g. annual licences, during the time that their renewal is under consideration;
- Projects authorised but not yet started'
- Projects started but not yet completed;
- Known projects that do not require external authorisation;
- Proposals in adopted plans;
- Proposals in draft plans formally published or submitted for final consultation, examination or adoption.

3.32 The need for in-combination assessment also arises at the Appropriate Assessment stage, as discussed in the Appropriate Assessment section below.

Screening assessment

3.33 A screening matrix has been prepared (**Appendix B**), which considers the potential for likely significant effects resulting from each policy in the Local Plan,

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and the site allocations that may contribute to each type of impact. For each policy and site allocation, the screening assessment concludes either that likely significant effects can be ruled out (no Appropriate Assessment required) or that they cannot be ruled out (Appropriate Assessment required). The screening assessment is conducted without taking mitigation (e.g. embedded in policy) into account, in accordance with the 'People over Wind' judgment.

3.34 For some types of impacts, the potential for likely significant effects has been determined on a proximity basis, using GIS data to determine the proximity of potential development locations to the Habitats Sites that are the subject of the assessment. However, there are many uncertainties associated with using set distances as there are very few standards available as a guide to how far impacts will travel. Therefore, where assumptions have been made, these are set out in **Chapter 4**.

Appropriate Assessment methodology

3.35 Following the screening stage, if likely significant effects on Habitats Sites are unable to be ruled out, the plan-making authority is required under Regulation 105 of the Habitats Regulations 2017 to make an 'Appropriate Assessment' of the implications of the plan for Habitats Sites, in view of their conservation objectives. EC Guidance **[See reference 26]** states that the Appropriate Assessment should consider the impacts of the plan (either alone or in combination with other projects or plans) on the integrity of Habitats Sites with respect to their conservation objectives and to their structure and function.

3.36 Unlike the Screening stage, Appropriate Assessment can take into account mitigation, for example as proposed within Local Plan policies.

Assessing the effects on site integrity

3.37 A site's integrity depends on it being able to sustain its 'qualifying features' (i.e. the habitats and species for which it has been designated) and to ensure

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their continued viability. The Holohan judgement also clarifies that the effects on species and habitats not listed as qualifying features, but which could result in secondary effects upon the qualifying features of Habitats Sites also need to be considered. The Appropriate Assessment, if required, will refer the information set out in **Appendix A** of this report, to consider the characteristics of supporting habitats and species that could be affected by impacts identified at the screening stage.

3.38 A high degree of integrity at a site is considered to exist where the potential to meet a site's conservation objectives is realised and where the site is capable of self-repair and renewal with a minimum of external management support.

3.39 A conclusion needs to be reached as to whether or not the Local Plan would adversely affect the integrity of a Habitats Site. Assessing the effects on the site(s) integrity involves considering whether the predicted impacts of the Local Plan policies and/or sites (either alone or in combination) have the potential to:

- Cause delays to the achievement of conservation objectives for the site.
- Interrupt progress towards the achievement of conservation objectives for the site.
- Disrupt those factors that help to maintain the favourable conditions of the site.
- Interfere with the balance, distribution and density of key species that are the indicators of the favourable condition of the site.
- Cause changes to the vital defining aspects (e.g. nutrient balance) that determine how the site functions as a habitat or ecosystem.
- Change the dynamics of relationships that define the structure or function of the site (e.g. relationships between soil and water, or animals and plants).
- Interfere with anticipated natural changes to the site.
- Reduce the extent of key habitats or the population of key species.

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- Reduce the diversity of the site.
- Result in disturbance that could affect the population, density or balance between key species.
- Result in fragmentation.
- Result in the loss of key features.

3.40 The conservation objectives for each SAC and SPA (**Appendix A**) are generally to maintain the qualifying features in favourable condition. Natural England does not define conservation objectives for Ramsar sites but these can often be inferred from those for co-located SAC or SPA features. The Site Improvement Plans for each site provide a high level overview of the issues (both current and predicted) affecting the condition of the designated features on the site(s) and outline the priority measures required to improve the condition of the features. An Appropriate Assessment draws on these to help to understand what is needed to maintain the integrity of the Habitats Sites.

3.41 For each Habitats Site where an uncertain or likely significant effect is identified in relation to the Local Plan, the potential impacts will be set out and judgements made (based on the information available) regarding whether the impact will have an adverse effect on the integrity of the site. A further in-combination assessment will need to be carried out for any likely significant effects identified where following Appropriate Assessment it is considered that the Local Plan will not on its own adversely affect the integrity of the Habitats Site. This will be undertaken in the same way as described above under the Screening stage drawing on information regarding the same types of relevant plans or projects referred to above. Consideration will be given to the potential for mitigation measures to be implemented that could reduce the likelihood or severity of the potential impacts such that there would not be an adverse effect on the integrity of the site.

Chapter 4

HRA Screening

4.1 The HRA screening of the Local Plan has determined that Appropriate Assessment is required, as likely significant effects from the plan's policies cannot be ruled out through screening. The reasoning for this is presented below.

4.2 Appendix B sets out the screening of each policy in the Plan, and this chapter summarises the findings of that process.

Physical damage and loss of habitat

4.3 Any development resulting from the Local Plan would take place within the Plan area; therefore only Habitats Sites (or functionally-linked habitats) within Winchester District but outside the South Downs National Park could be affected through physical damage or loss of habitat from within the site boundaries. Only the River Itchen SAC and a small part of the Solent & Southampton Water SPA/Ramsar and Solent Maritime SAC are within the Plan area.

4.4 None of the allocated sites are within a Habitats Site, although W6 is adjacent to the River Itchen SAC and SH2 is adjacent to Solent & Southampton Water SPA/Ramsar; these therefore have the potential to indirectly damage habitat within the Habitats Sites.

4.5 The following policies also permit development in locations other than allocated and sites and could therefore, in theory, permit development within a Habitats Site:

- Policy SP3: Development in the countryside;

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- Policy CN5: Renewable and low carbon energy schemes;
- Policy CN6: Micro energy generation schemes;
- Policy CN7: Energy storage development;
- Policy NE12: Equestrian development;
- Policy NE13: Leisure and recreation in the countryside;
- Policy H1: Housing provision;
- Policy H4: Development within settlements;
- Policy H9: Purpose built student accommodation;
- Policy H12: Provision for Gypsies, Travellers and Travelling Showpeople;
- Policy E11: Visitor-related development within the countryside.

4.6 As these policies permit development outside of allocated sites, they could also result in development within habitat within the Plan area that is functionally linked to Habitats Sites.

Functionally linked land (FLL) within the Plan area

4.7 Habitat loss from development in areas outside of the Habitats Site boundaries may also result in likely significant effects where that habitat contributes towards maintaining the interest feature for which the Habitats Site is designated. This includes land which may provide offsite foraging or roosting habitat for birds or bats, and spawning grounds for fish.

4.8 The following Habitats Sites within 15km of the Plan area support mobile species and therefore could rely on FLL:

- Mottisfont Bats SAC: Barbastelle bats.
- River Itchen SAC (southern damselfly; white-clawed (or Atlantic stream) crayfish; brook lamprey; Atlantic salmon; bullhead; and otter).

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- New Forest SAC / SPA / Ramsar (SAC: southern damselfly; stag beetle; great crested newt. SPA: European honey-buzzard, Eurasian hobby, European nightjar, woodlark, Dartford warbler, wood warbler; hen harrier).
- Wealden Heaths Phase 2 SPA (European nightjar, woodlark, Dartford warbler).
- Porton Down SAC (stone curlew).
- Chichester & Langstone Harbours SPA / Ramsar (black-tailed godwit [Ramsar only]; sandwich tern; common tern; little tern; dark-bellied brent goose; common shelduck; Eurasian wigeon; Eurasian teal; northern pintail; northern shoveler; red-breasted merganser; ringed plover; grey plover; sanderling; dunlin; bar-tailed godwit; Eurasian curlew; common redshank; ruddy turnstone; and its water bird assemblage).
- Portsmouth Harbour SPA / Ramsar (dark-bellied brent goose; red-breasted merganser; dunlin; black-tailed godwit).
- Solent & Dorset Coast SPA (sandwich tern; common tern; little tern).
- Solent & Southampton Water SPA / Ramsar (Mediterranean gull; sandwich tern; roseate tern; common tern; little tern; dark-bellied brent goose; Eurasian teal; ringed plover; black-tailed godwit; and its waterbird assemblage).

Mammals

4.9 The qualifying features at Mottisfont Bats SAC are Barbastelle bats. There is evidence that the home range of Barbastelle bats is 1-20km **[See reference 27]**; however this evidence also states that their core foraging areas are likely to lie within a much smaller range and that 7km is a suitable distance for targeting the protection of foraging habitats. Mottisfont Bats SAC is c. 6km from the Plan area at its nearest point. While the home range of individuals may extend into the Plan area, their level of dependence on habitats beyond 7km is likely to be low. Within 7km of the SAC and within the Plan area (i.e. near to Upper Slackstead), there are no areas of habitat affected by the Plan that are capable of representing important functional linkages to the SAC. Therefore, effects on

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FLL in relation to Barbastelle bats at Mottisfont Bats SAC do not need to be considered in the HRA.

4.10 Otter are a qualifying feature of the River Itchen SAC. Otter home ranges can occupy extensive areas and linear distances, and therefore the population of otter for which the River Itchen SAC is designated is likely to utilise, and depend upon, the availability and connectivity of suitable riparian and wetland habitat in the wider region, including smaller watercourses and field drains. As a result, there is potential for FLL within the Plan area that may be affected by the Local Plan.

Invertebrates

4.11 Southern damselfly is a qualifying feature at both River Itchen SAC and New Forest SAC. Southern damselfly have very specialised habitat requirements, making use of “shallow, well-vegetated, base-rich runnels and flushes in open areas or small side-channels of chalk rivers. Most sites are on wet heath.” [See reference 28]; i.e. rivers and wet heathland immediately adjacent to them. New Forest SAC is c. 10.5km away; therefore habitats associated with the metapopulation of damselfly in the New Forest will not be within the Plan area. River Itchen SAC is within the Plan area but in the south of the Plan area, habitats that support southern damselfly form part of the SAC designation. There are areas of lowland fens outside the SAC in Winchester town, but these are within the South Downs National Park rather than the Plan area. Lowland fens around New Alresford, however, fall outside the SAC and could be functionally linked to it. Therefore effects on FLL within the Plan area need to be considered in relation to southern damselfly.

4.12 Stag beetle are a qualifying feature at New Forest SAC. Stag beetles may travel outside of the SAC boundaries, although it is unlikely that they will travel far (it is generally only the male stag beetle that flies during the summer months, and the female beetle rarely flies) [See reference 29]. Research [See reference 30] suggests that 2km may be an appropriate buffer inside which sites could be functionally connected, as this is the distance that male stag beetles travel to females during the breeding season. New Forest SAC is c.

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11km outside the Plan area; therefore effects on FLL within the Plan area do not need to be considered in relation to stag beetle.

4.13 Atlantic stream (white clawed) crayfish are a qualifying feature of the River Itchen SAC. Crayfish make use of habitats within and immediately adjacent to the waterbodies they live in [See reference 31]. As the whole of the River Itchen in Winchester is designated SAC, there are no areas of habitat outside of the SAC boundary that crayfish would need to rely on; therefore effects on FLL within the Plan area do not need to be considered in relation to crayfish.

Amphibians

4.14 Great crested newts are a qualifying feature at New Forest SAC. Great crested newt typically inhabit the land within 500m of their breeding ponds and are known to only travel up to 2km from their breeding ponds. New Forest SAC is c. 11km outside the Plan area; therefore effects on FLL within the Plan area do not need to be considered in relation to great crested newts.

Fish

4.15 Brook lamprey, Atlantic salmon and bullhead are qualifying features of the River Itchen SAC.

4.16 Brook lamprey and bullhead are not migratory species and therefore rely entirely on habitats within the River Itchen. As the whole of the River Itchen in Winchester is designated SAC, there are no areas of habitat outside of the SAC boundary that crayfish would need to rely on; therefore effects on FLL within the Plan area do not need to be considered in relation to brook lamprey or bullhead.

4.17 Atlantic salmon spawn, and live as juveniles, in rivers such as the Itchen and Meon and then migrate to sea. The River Itchen SAC therefore has functional links to Southampton Water and beyond, but all of the supporting

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habitat within the Plan area is within the SAC. Therefore, effects on FLL within the Plan area do not need to be considered in relation to Atlantic salmon.

Birds

4.18 Birds have varying ranges depending on the species and therefore need to be considered on a species by species and site by site basis.

Heathland and woodland bird species

4.19 Stone curlew is a qualifying species at Porton Down SAC. A distance of 1.5km has been used to identify areas of potential FLL at other sites [See reference 32]. As Porton Down SAC is c.14km from the Plan area, this is considered well beyond the area in which FLL could occur. FLL within the Plan area therefore does not need to be considered in relation to stone curlew.

4.20 Nightjar, woodlark and Dartford warbler are qualifying species at both New Forest SPA/Ramsar and Wealden Heaths Phase 2 SPA. These species make use of areas that have a patchwork of heathland, grassland and woodland (particularly coppiced or other rotationally managed woodland, which creates clearings in which nightjar and woodlark can nest). Both of the Habitats Sites for which these species are designated have large areas of lowland heathland interspersed with areas of woodland, something which does not occur within the Plan area [See reference 33]. It is therefore considered very unlikely that FLL associated with these species from either Habitats Site would be found within the Plan area. FLL within the Plan area therefore does not need to be considered in relation to nightjar, woodlark or Dartford warbler.

4.21 European honey buzzard and Eurasian hobby are also qualifying species at New Forest SPA/Ramsar. Honey buzzards are considered to have a foraging range of c. 4km [See reference 34] and hobby of up to 6.5km [See reference 35]. Hobby typically like open habitats with lots of prey (e.g. dragonflies and smaller birds) and are often found over large bodies of water. They are likely to

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breed within the Plan area, although the habitats present are unlikely to provide an important role in maintaining the population for which the New Forest SPA/Ramsar, which is c.11km outside the Plan area, is designated. Honey Buzzard may breed in some of the larger woodlands within Winchester (e.g. Micheldever) but again, these individuals would be rare and considered as separate populations to the SAC, so the Plan area is unlikely to be important in supporting this population. Therefore effects on FLL within the Plan area do not need to be considered in relation to European honey buzzard or Eurasian hobby.

Water birds

4.22 Chichester & Langstone Harbours SPA / Ramsar, Portsmouth Harbour SPA / Ramsar, Solent & Dorset Coast SPA, and Solent & Southampton Water SPA / Ramsar are all located around Southampton Water and the Solent, and are designated for their waterbird populations.

4.23 The species that are the sites' qualifying features rely on the intertidal and marine habitats within the designated sites, but also make use of habitats outside the designated areas. As part of the preparation of the Solent Waders and Brent Goose Strategy [See reference 36], the core and supporting habitats for wildfowl and wading birds were mapped. This shows that functionally linked land for the Solent SPA / Ramsar sites occurs close to (within 2km) of the coast and estuaries, i.e. mostly outside the Plan area, although one area identified as a 'primary support area', close to the River Hamble, is within the Plan area.

4.24 Therefore, effects on FLL within the Plan area need to be considered in relation to SPA / Ramsar waterbirds.

FLL relevant to physical damage and loss of habitat

4.25 As set out above, most of the Habitats Sites with mobile qualifying species do not rely on FLL within the Plan area. The following do, and will be considered further within the HRA:

- River Itchen SAC: Otter may use riparian and wetland habitat beyond the SAC boundary. Southern damselfly may use lowland fen habitat around New Alresford.
- Coastal SPA/Ramsar sites: birds may use suitable habitats e.g. wetland within 2km of the SPA/Ramsar sites. Within the Plan area, these are only around the River Hamble (associated with Solent & Southampton Water SPA/Ramsar).

4.26 Two areas within SH2 were surveyed as potential FLL associated with the coastal SPA/Ramsar sites and both were identified as 'low use site' as part of the Solent Waders and Brent Goose Strategy work. Further allocations may be present in areas of FLL that have not yet been surveyed/identified, e.g. other sites close to the River Hamble linked to the coastal SPA/Ramsar sites, or riparian/wetland habitat associated with the River Itchen SAC.

4.27 All of the policies listed in paragraph 4.4 could also, in theory, result in development in areas of FLL associated with the River Itchen SAC or coastal SPA/Ramsar sites.

4.28 There is potential for likely significant effects to occur in relation to physical damage and loss of habitat at River Itchen SAC, Solent & Southampton Water SPA/Ramsar or Solent Maritime SAC; or at functionally linked land associated with River Itchen SAC or Solent & Southampton Water SPA/Ramsar. This therefore requires further consideration at Appropriate Assessment.

Fragmentation and severance

4.29 Fragmentation and severance may be caused by physical loss of habitats, but may also be caused by development that impedes the movement of species between two areas of habitat, for example new roads or brightly lit areas.

4.30 Only Habitats Sites or FLL within the Plan area could be affected by fragmentation and severance arising from the Local Plan. As noted above, only the River Itchen SAC, a small part of the Solent & Southampton Water SPA/Ramsar and Solent Maritime SAC are within the Plan area. Fragmentation or severance affecting the qualifying features of the River Itchen SAC could be caused by physical loss of or damage to the river habitats within or upstream of the Habitats Site, or between the SAC and other water bodies or FLL, e.g. through habitat loss or non-physical disturbance. Fragmentation / severance will therefore be considered in relation to loss/damage of habitat and non-physical disturbance.

4.31 Fragmentation or severance affecting the Solent & Southampton Water SPA/Ramsar would involve physical loss of or damage to SPA/Ramsar habitats or disturbance between FLL. These are assessed in relation to physical loss/damage or habitat, non-physical disturbance, and recreation disturbance; fragmentation and severance will therefore not be considered as a separate effect.

4.32 Effects relating to fragmentation and severance will be considered in relation to loss/damage of habitat, non-physical disturbance and/or recreation pressure; and not assessed as a separate effect.

Non-physical disturbance

4.33 Noise and vibration effects, e.g. during the construction of new housing or employment development, are most likely to disturb bird species and are thus a key consideration with respect to Habitats Sites where birds are the qualifying

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features. Artificial lighting at night (e.g. from street lamps, flood lighting and security lights) has the potential to affect species where it occurs in close proximity to key habitat areas, such as key roosting sites of SPA birds.

4.34 It has been assumed (on a precautionary basis and based on our experience of previous HRAs and consultation with Natural England) that the effects of noise, vibration and light pollution are capable of causing an adverse effect if development takes place within 500 metres of a Habitats Site with qualifying features sensitive to these disturbances.

4.35 Scoped in Habitats Sites that support qualifying species which are vulnerable to non-physical disturbance are the River Itchen SAC (and its FLL) and Solent & Southampton Water SPA/Ramsar.

4.36 The following site allocations are within 500m of these sites (or FLL):

- River Itchen SAC (and its FLL): KW1, KW2, NA1, NA3, W3, W4, W5, W6, W7, W9, W10, CC3.
- Solent & Southampton Water SPA/Ramsar (and its FLL): SH2

4.37 The following policies also permit development outside of the allocated sites that could in theory be within 500m of a Habitats Site or FLL:

- Policy SP3: Development in the countryside;
- Policy CN5: Renewable and low carbon energy schemes;
- Policy CN6: Micro energy generation schemes;
- Policy CN7: Energy storage development;
- Policy NE12: Equestrian development;
- Policy NE13: Leisure and recreation in the countryside;
- Policy H1: Housing provision;
- Policy H4: Development within settlements;
- Policy H9: Purpose built student accommodation;

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- Policy H12: Provision for Gypsies, Travellers and Travelling Showpeople;
- Policy E8: Local shops, services and facilities;
- Policy E9: Economic development in the rural area; and
- Policy E11: Visitor-related development within the countryside.

4.38 There is potential for likely significant effects to occur in relation to non-physical disturbance at River Itchen SAC, Solent & Southampton Water SPA/Ramsar; or at functionally linked land associated with these. This therefore requires further consideration at Appropriate Assessment.

Air pollution

4.39 Air pollution is most likely to affect Habitats Sites where plant, soil and water habitats are the qualifying features, but some qualifying animal species may also be affected, either directly or indirectly, by deterioration in habitat as a result of air pollution. Deposition of pollutants to the ground and vegetation can alter the characteristics of the soil, affecting the pH and nitrogen levels, which can then affect plant health, productivity and species composition.

4.40 In terms of vehicle traffic, nitrogen oxides (NO_x, i.e. NO and NO₂) are considered to be the key pollutants, although ammonia can also arise from vehicle emissions. Deposition of nitrogen compounds may lead to both soil and freshwater acidification, and NO_x can cause eutrophication of soils and water.

4.41 Based on the Highways Agency Design Manual for Road and Bridges (DMRB) guidance document LA105 Air Quality [See reference 37] (which was produced to provide advice regarding the design, assessment and operation of trunk roads including motorways), it is assumed that air pollution from roads is unlikely to be significant beyond 200m from the road itself. Where increases in traffic volumes are forecast, this 200m buffer needs to be applied to the relevant roads in order to make a judgement about the likely geographical extent of air pollution impacts.

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4.42 The DMRB Guidance for the assessment of local air quality in relation to highways developments provides criteria that should be applied at the Screening Stage of an assessment of a plan or project, to ascertain whether there are likely to be significant impacts associated with routes or corridors. Based on the DMRB guidance, affected roads which should be assessed are those where:

- Daily traffic flows will change by 1,000 AADT (Annual Average Daily Traffic) or more; or
- Heavy duty vehicle (HDV) flows will change by 200 AADT or more; or
- A change in speed band; or
- Road alignment will change by 5m or more.

4.43 Where significant increases in traffic are possible on roads within 200m of Habitats Sites (or in some cases functionally-linked habitats), traffic forecast data may be needed to determine if increases in vehicle traffic are likely to be significant. In line with the Wealden judgement [\[See reference 38\]](#), the traffic growth considered by the HRA should be based on the effects of development provided for by the Local Plan in combination with other drivers of growth such as development proposed in neighbouring districts and demographic change.

4.44 It is usually the case that only those roads forming part of the primary road network (motorways and 'A' roads) are likely to experience any significant increases in vehicle traffic as a result of development (i.e. greater than 1,000 AADT). As such, where a site is within 200m of only minor roads, no significant effect from traffic-related air pollution is considered to be the likely outcome. However, there may be exceptions, where large development is close to a Habitats Site and linked by minor roads.

4.45 All of the Habitats Sites considered in this HRA have qualifying features that are sensitive to air pollution, either directly or via the features' supporting habitats.

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4.46 Table 4.1 summarises the sites that could be affected air pollution, as a result of increased traffic associated with the Winchester Local Plan. Error! Reference source not found. shows the roads that could affect them (see 'FLL outside the Plan area', below).

4.47 Winchester Council has undertaken traffic modelling to estimate current and future traffic flows on the roads within 200m of Habitats Sites. This identifies which roads are likely to exceed the DMRB screening criteria (paragraph 4.43) for the Local Plan alone and in combination with other plans or projects. The data is summarised in Table 4.2.

4.48 For Salisbury Plain SAC & Porton Down SPA and Woolmer Forest SAC & Wealden Heath SPA, this initial traffic modelling has used data for roads within the plan area that lead to the roads past the Habitats Sites, as data was not available for roads outside the plan area. However, as these roads show very small changes in traffic flow, further traffic modelling is not considered to be necessary for these sites.

Table 4.1: Habitats Sites, roads within 200m and HRA screening

Habitats Site	Motorway/A roads within 200m	Notes
Screened in		
Butser Hill SAC	A3	A3 is entirely outside the Plan area.
Chichester & Langstone Harbour SPA/Ramsar	A3(M), A27, A2030, A3023; A259	All of these roads are entirely outside the Plan area, but the A27 links to the M27 (in Plan area).
New Forest SAC, SPA/Ramsar	A36, M27	M27 links to the Plan area. Additional roads pass this site within 200m but are beyond 15km from the Plan area.
Portsmouth Harbour SPA/Ramsar	A27, M27, M275	The M27 links to the Plan area; the other roads are outside it.

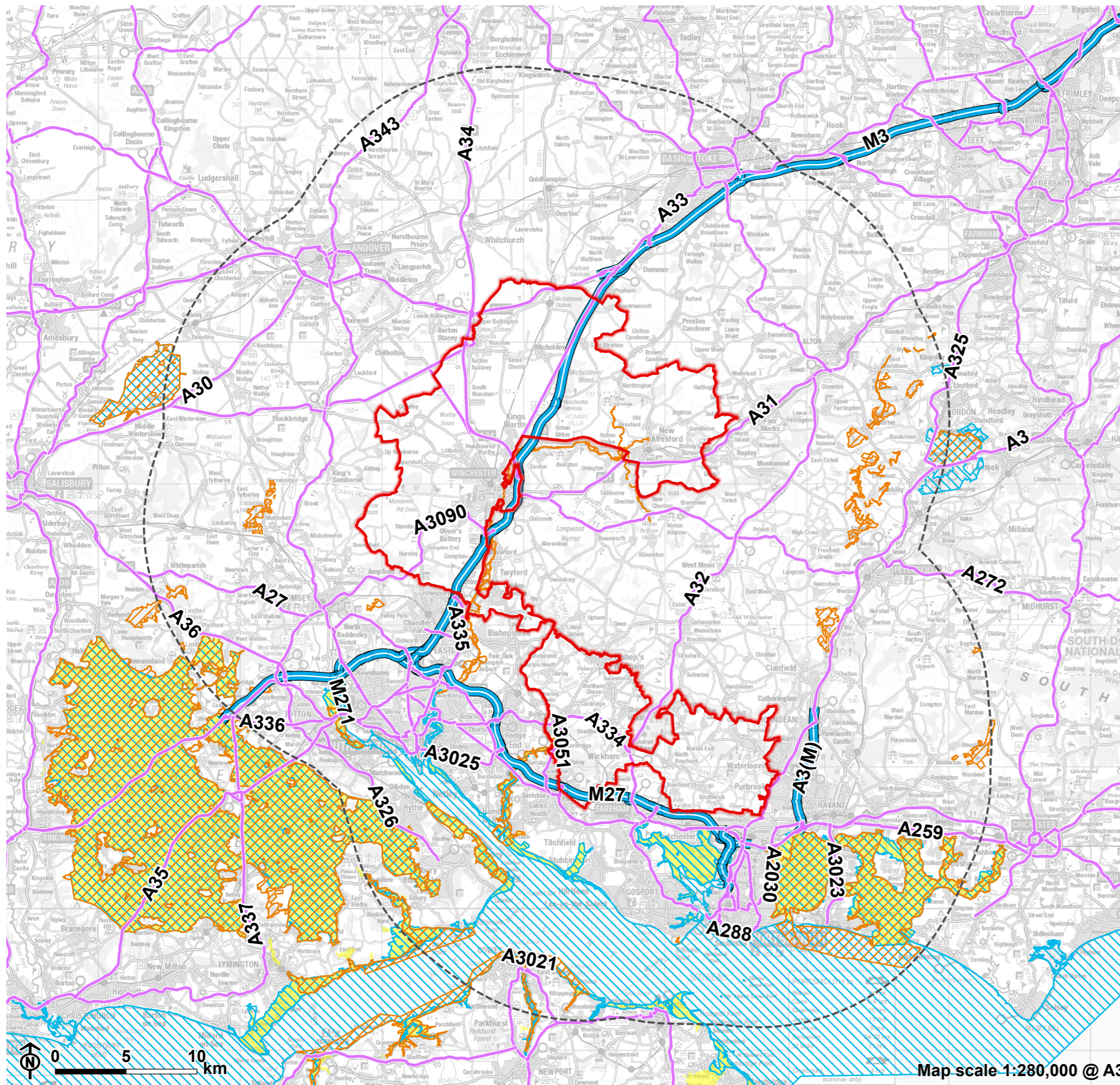
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Habitats Site	Motorway/A roads within 200m	Notes
River Itchen SAC	A31, A34, M3, M27	The M27 is outside the Plan area but linked to it. The other roads are all within the Plan area.
Solent Maritime SAC and Solent & Southampton Water SPA/Ramsar	A3(M), A27, A2030, A3023; A259, M27, M271, A35, A36	The M27 links to the Plan area; the other roads are outside it. Other parts of Solent Maritime SAC and Solent & Southampton Water SPA/Ramsar are either not within 15km of the Plan area, not linked by roads (e.g. on the Isle of Wight), or not next to major roads.
Salisbury Plain SAC and Porton Down SPA	A30	A30 is outside the Plan area. The B3049 links the Plan area to the A30. Additional roads pass this site within 200m but are beyond 15km from the Plan area.
Woolmer Forest SAC and Wealden Heath SPA	A3, A325	Both relevant sections of these roads are outside the Plan area. The A3 further south and the A31 link the Plan area to these roads.
Screened out		
East Hampshire Hangers SAC	None	n/a
Emer Bog SAC	None	n/a
Kingley Vale SAC	None	n/a
Mottisfont Bats SAC	None	n/a
Rook Clift SAC	None	n/a
Shortheath Common SAC	None	n/a
Solent & Isle of Wight Lagoons SAC	Within 15km of the Plan area: none	Other parts of Solent & Isle of Wight Lagoons SAC are either not within 15km of the Plan area, not linked by roads (e.g.

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Habitats Site	Motorway/A roads within 200m	Notes
		on the Isle of Wight), or not next to major roads.

Figure 4.1: Major Roads



- Local Plan area
- 15km buffer from the Local Plan area
- A Road
- Motorway
- Ramsar
- Special Area of Conservation (SAC)
- Special Protection Area (SPA)

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Table 4.2: Traffic flows on roads past Habitats Sites

Habitats Site	Strategic roads within 200m	Maximum increase in AADT (Local Plan alone)	Maximum increase in AADT (Local Plan in combination with other plans/projects)	Screening criteria exceeded?
Butser Hill SAC	A3	All traffic: A3, 29 AADT HGVs: A3, 2 AADT	n/a (traffic decreases)	No
Chichester & Langstone Harbour SPA/Ramsar	A3(M), A27, A2030, A3023; A259	All traffic: A3(M), 36 AADT HGVs: A27, 4 AADT	All traffic: A3(M), 96 AADT HGVs: A27, 18 AADT	No
New Forest SAC, SPA/Ramsar	A36, M27	All traffic: M27, 43 AADT HGVs: A36, 3 AADT	All traffic: A36, 179 AADT HGVs: M27, 41 AADT	No
Portsmouth Harbour SPA/Ramsar	A27, M27, M275	All traffic: A27, 22 AADT HGVs: M27, 7 AADT	All traffic: A27, 75 AADT HGVs: M27, 24 AADT	No
River Itchen SAC	A31, A34, M3, M27	All traffic: M3, 596 AADT HGVs: M3, 47 AADT	All traffic: M3, 2,459 AADT HGVs: M3, 10 AADT	Yes: M3 between J11 & J12 (all traffic, Local Plan in combination)
Solent Maritime SAC and Solent & Southampton	A3(M), A27, A2030, A3023; A259, M27, M271, A35, A36	All traffic: M271, 81 AADT HGVs: M27, 10 AADT	All traffic: M27, 103 AADT HGVs: A27, 18 AADT	No

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Habitats Site	Strategic roads within 200m	Maximum increase in AADT (Local Plan alone)	Maximum increase in AADT (Local Plan in combination with other plans/projects)	Screening criteria exceeded?
Water SPA/Ramsar				
Salisbury Plain SAC and Porton Down SPA	A30 (using data for the B3049, within the plan area)	All traffic: traffic decreases HGVs: B3049, 3 AADT	All traffic: B3049, 97 AADT HGVs: B3049, 3 AADT	No
Woolmer Forest SAC and Wealden Heath SPA	A3, A325 (using data for the A3 and A31 within the plan area)	All traffic: A3, 29 AADT HGVs: A3, 2 AADT	All traffic: A31, 87 AADT HGVs: A31: 2 AADT	No

4.49 The traffic data shows that the Local Plan, in combination with other plans and projects, will exceed traffic screening criteria (and therefore have a likely significant effect) on the River Itchen SAC. Traffic modelling indicates that site allocation W5 Bushfield Camp is responsible for the increase in traffic on the M3 in proximity to the River Itchen SAC. Traffic data provided for W5 Bushfield Camp shows an increase in 5,053 AADT on the M3 between J11 and J12. Comparison with the Local Plan 'in combination' figure of 2,459 AADT, suggests that overall decreases in traffic on the M3 would be offset by traffic from Bushfield Camp, causing a net exceedance of traffic screening criteria.

FLL outside the Plan area

4.50 In addition to Habitats Sites within 200m of roads, increased traffic could also affect sensitive FLL within 200m of roads, within or close to the Plan area. As set out above, under 'FLL within the Plan area', a number of the Habitats Sites within 15km of the Plan area have mobile species that may make use of FLL. The following may make use of FLL outside the Plan area, and therefore have the potential to be affected by increases in traffic on the wider road network:

- Mottisfont Bats SAC: Barbastelle bats, which may use larger areas of woodland within 7km of the SAC;
- River Itchen SAC: Otter and southern damselfly may use riparian and wetland habitat beyond the SAC boundary. Atlantic salmon migrate to sea; therefore the SAC has functional links to Southampton Water and beyond.
- New Forest SAC: Stag beetle may use decaying wood habitat within 2km of the SAC. Great crested newts may travel up to 2km from their breeding ponds.
- Porton Down SPA: Stone curlew may use grassland up to 1.5km from the SAC.

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- Chichester & Langstone Harbours SPA / Ramsar, Portsmouth Harbour SPA / Ramsar, Solent & Dorset Coast SPA, and Solent & Southampton Water SPA / Ramsar: waterbirds use habitats outside the designated areas, within 2km of the coast and estuaries of Southampton Water and the Solent.

FLL relevant to air pollution

4.51 None of the Habitats Sites that potentially have FLL associated with them are particularly sensitive to air pollution (see paragraph 4.45). Therefore it is unlikely that the FLL will be sensitive to air pollution to the extent that air pollution at FLL could alter the type, distribution and/or quality of habitats present and therefore have a significant effect at the linked Habitats Site.

4.52 There is potential for likely significant effects to occur in relation to air pollution at River Itchen SAC (directly; excludes effects on FLL). This therefore requires further consideration at Appropriate Assessment.

Changes in water quantity or quality

4.53 An increase in demand for water abstraction and treatment, and changes in land use resulting from the growth proposed in the Local Plan could result in changes in hydrology at Habitats Sites. Depending on the qualifying features and particular vulnerabilities of the Habitats Sites, this could result in likely significant effects; for example due to changes in environmental or biotic conditions, water chemistry and the extent and distribution of preferred habitat conditions.

4.54 Habitats can also be affected by changes in water quality such as nutrient enrichment, changes in salinity, smothering from dust, and run-off, discharge or spillage from industry, agriculture or construction. Changes in water abstraction,

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discharge and land use can also affect water quality, for example a change in land use from agriculture to residential reduces direct nutrient run-off to watercourses but increases the volume of nutrients discharges from wastewater treatment works.

4.55 Habitats Sites with potential to be affected by changes in water quantity or quality are likely to be sites (or their FLL) that lie within the Plan area or those that are hydrologically connected to areas of development provided for by the plan. These are:

- Chichester & Langstone Harbours SPA/Ramsar;
- Portsmouth Harbour SPA/Ramsar;
- River Itchen SAC (and potential FLL near the River Itchen);
- Solent & Dorset Coast SPA;
- Solent & Isle of Wight Lagoons SPA / Ramsar;
- Solent & Southampton Water SPA/Ramsar (and potential FLL near the River Hamble);
- Solent Maritime SAC; and
- Woolmer Forest SAC.

4.56 Southern Water's Water Resource Management Plan states that South Hampshire takes one third of its water from groundwater and two thirds from the River Test and River Itchen; and wastewater treatment works serving the Plan area fall within two of Southern Water's planning areas:

- Test and Itchen Catchment [[See reference 39](#)]; and
- East Hampshire Catchment [[See reference 40](#)] (River Meon and River Hamble).

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4.57 The major chalk aquifer underlies much of the plan area and is connected to the River Itchen SAC, which is a chalk river (as is the River Test). Abstraction from, or pollution of, groundwater could therefore affect this site.

4.58 The Rivers Test, Itchen, Hamble and Meon all flow through the Plan area and into Southampton Water and the Solent. The River Itchen SAC and the marine and coastal Habitats Sites downstream of those rivers (Solent & Dorset Coast SPA, Solent & Southampton Water SPA/Ramsar and Solent Maritime SAC) therefore have the potential to be affected by changes in water quality or quantity, particularly nutrient enrichment, and will be assessed in the HRA. The wetland habitats at Woolmer Forest SAC (the only terrestrial SAC sensitive to changes in water quantity/quality) are unlikely to be hydrologically connected to the Plan area and therefore do not need to be considered further in the HRA.

4.59 Natural England's June 2020 guidance [[See reference 41](#)] on nutrient neutrality for new development in the Solent region stated that:

There are high levels of nitrogen and phosphorus input to [the Solent] with sound evidence that these nutrients are causing eutrophication at these designated sites. These nutrient inputs currently mostly come either from agricultural sources or from wastewater from existing housing and other development. The resulting dense mats of green algae and other effects on the marine ecology from an excessive presence of nutrients are impacting on the Solent's protected habitats and bird species.

There is uncertainty as to whether new [housing/overnight accommodation] growth will further deteriorate designated sites. This issue has been subject to detailed work commissioned by local planning authorities (LPAs) in association with Natural England, Environment Agency and water companies. This strategic work, which updates early studies, is on-going. Until this work is complete, the uncertainty remains and the potential for

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future housing developments across the Solent region to exacerbate these impacts creates a risk to their potential future conservation status.

One way to address this uncertainty is for new development to achieve nutrient neutrality. Nutrient neutrality is a means of ensuring that development does not add to existing nutrient burdens and this provides certainty that the whole of the scheme is deliverable in line with the requirements of the Conservation of Habitats and Species Regulations 2017.

4.60 Natural England developed a methodology for assessing nutrient neutrality, which was then updated in March 2022 and a revised calculator for the Solent provided in April 2022 [See reference 42]. The updated guidance expanded the number of catchments in which nutrients in which new development would need to demonstrate nutrient neutrality, updated the calculation methodology, and highlighted the issue of phosphorus in the River Itchen SAC (which had previously only been identified as having an issue with nitrogen).

4.61 The following policies and associated site allocations (all of the Plan's allocated residential and employment sites) could result in changes to water quality or quantity within the Test & Itchen or East Hampshire Catchments:

- Policy SP3: Development in the countryside;
- Policy NE12: Equestrian development;
- Policy NE13: Leisure and recreation in the countryside;
- Policy H1: Housing provision;
- Policy H4: Development within settlements;
- Policy H9: Purpose built student accommodation;
- Policy H12: Provision for Gypsies, Travellers and Travelling Showpeople;

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- Policy E3: Town centres strategy and hierarchy;
- Policy E8: Local shops, services and facilities;
- Policy E9: Economic development in the rural area;
- Policy E10: Farm diversification; and
- Policy E11: Visitor-related development within the countryside.

In addition, developments in close proximity to Habitats Sites could result in direct run off (e.g. during construction or from surface water drainage). 500m is considered to provide a reasonably precautionary estimate of proximity, but note that hydrological connections may extend beyond this, for example due to site topography or the presence of watercourses. Sites within 500m of Habitats Sites are:

- River Itchen SAC: KW1, KW2, NA1, NA3, W3, W4, W5, W6, W7, W9, W10, CC3
- Solent & Southampton Water SPA/Ramsar and Solent Maritime SAC: SH2

4.62 There is potential for likely significant effects to occur in relation to change to water quality or quantity at River Itchen SAC, Solent & Dorset Coast SPA, Solent & Southampton Water SPA/Ramsar and Solent Maritime SAC. This therefore requires further consideration at Appropriate Assessment.

Recreation pressure

4.63 Recreational activities and human presence can result in significant effects on Habitats Sites as a result of erosion and trampling, associated impacts such as fire and vandalism or disturbance to sensitive features, such as birds through both terrestrial and water-based forms of recreation. Note that impacts due to public access to a site are considered in this 'recreation pressure' section; whereas disturbance from other urban edge effects that do not require public

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access to a site are considered in the 'non physical disturbance' sections of this HRA.

4.64 The Local Plan will result in housing growth and an associated increase in the resident population of the Plan area; and this may result in significant increases in recreation at a Habitats Site, either alone or in-combination. In some cases, other forms of development such as tourism/overnight accommodation can also contribute to recreation pressure.

4.65 Habitats Sites with qualifying bird species are likely to be particularly susceptible to recreational disturbances such as walking, dog walking, angling, illegal use of drones, off-road vehicles and motorbikes, and water sports. An increase in recreational pressure from development therefore has the potential to disturb bird populations of Habitats Sites as a result of both terrestrial and water-based recreation.

4.66 In addition, recreation can physically damage habitat as a result of trampling and also through erosion associated with boat wash and terrestrial activities such as use of vehicles.

4.67 Each Habitats Site will typically have a 'Zone of Influence' (ZOI) within which increases in population would be expected to result in likely significant effects. ZOIs are usually established following targeted visitor surveys and the findings are therefore typically specific to each Habitats Site (and often to specific areas within a Habitats Site).

4.68 ZOIs are likely to be influenced by a number of complex and interacting factors and therefore it is not always appropriate to apply a generic or non-specific ZOI to a Habitats Site. Particularly in relation to coastal Habitats Sites or large sites such as the New Forest, which have the potential to draw large number of visitors from areas much further afield. In some cases, functionally-linked habitats used by qualifying species can also be affected by recreation pressure.

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4.69 Zones of influence for sensitive Habitats Sites are shown in **Table 4.2** and on **Figure 4.2**.

Table 4.3: Zones of Influence for Habitats Sites sensitive to recreation pressure

Habitats Site	Zone of influence	Source
Screened in: ZOIs within Plan area		
Solent & Southampton Water SPA/Ramsar (within Plan area)	5.6km	Solent Recreation Mitigation Strategy (produced by Bird Aware Solent) [See reference 43]
Chichester & Langstone Harbours SPA/Ramsar (c.2.3km away)	5.6km	Solent Recreation Mitigation Strategy, as above
Portsmouth Harbour SPA (c.1.2km away)	5.6km	Solent Recreation Mitigation Strategy, as above
Solent & Dorset Coast SPA (c.1.2km away)	5.6km	Solent Recreation Mitigation Strategy, as above and Gosport Bird Disturbance Mitigation Protocol [See reference 44]
Mottisfont Bats SAC (c.6.0km away)	7.5km	Mottisfont Bats Special Area of Conservation (SAC) Protocol for Planning Officers [See reference 45]
New Forest SAC/SPA/Ramsar (c.10.5km away)	15km for large development (see paragraph 4.72)	Footprint Ecology report "Discussion and analysis relating to the New Forest SAC/SPA/Ramsar and a zone of influence for recreation" [See reference 46]
Screened out: ZOIs outside Plan area		
Shortheath Common SAC (c.12.0km away)	5km	Wealden Heaths and Shortheath Common 2018 Visitor Surveys [See reference 47] South Downs National Park Local Plan HRA [See reference 48] (more precautionary figure used)

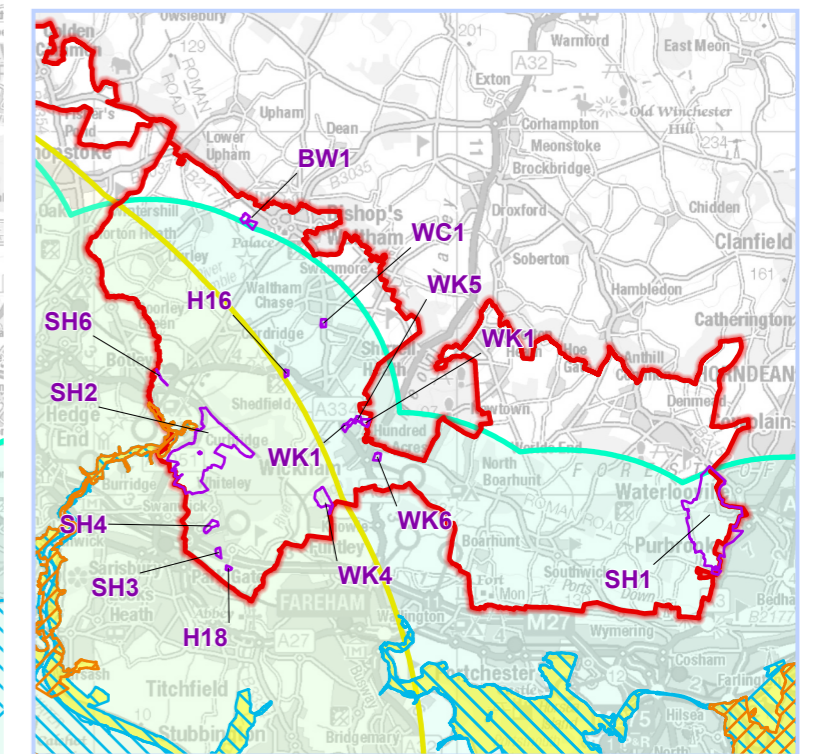
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Habitats Site	Zone of influence	Source
Woolmer Forest SAC (c.13.6km away)	5km	Wealden Heaths and Shortheath Common 2018 Visitor Surveys South Downs National Park Local Plan HRA (more precautionary figure used)
Wealden Heaths Phase 2 SPA (14.2km away)	5km	Wealden Heaths and Shortheath Common 2018 Visitor Surveys South Downs National Park Local Plan HRA (more precautionary figure used)

Figure 4.2: Zones of Influence for Recreation Pressure



- Local Plan area
- 15km buffer from the Local Plan area
- Ramsar
- Special Area of Conservation (SAC)
- Special Protection Area (SPA)
- Zones of Influence**
- New Forest designated sites
- Solent designated sites
- Mottisfont Bats SAC
- Other sites
- Allocated Site in a Zone of Interest**
-



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4.70 In response to consultation on the HRA Scoping Report (see Appendix C), the South Downs National Park Authority (SDNPA) stated that: “The SDNPA does not consider recreational pressure to be of particular concern for the River Itchen SAC, however dog walkers and disturbance of wildlife should be a consideration”; although the SDNPA HRA screened out recreation pressure in relation to this site. Otter are susceptible to recreational disturbance but the majority of suitable habitat around the River Itchen is within private inaccessible land where increases in housing and population would not be expected to increase disturbance events. Areas where recreational activities occur along the Itchen are generally focused around specific parks where increases in recreation are not expected to impact upon otter populations. Recreation pressure in relation River Itchen SAC has therefore been screened out.

4.71 Butser Hill SAC and East Hampshire Hangers SAC, although they have qualifying features that could be sensitive to recreation pressure, have been screened out, as the sites themselves are not in fact particularly sensitive. This is in line with the approach taken in the South Downs National Park Local Plan HRA (see reference 48), which states:

“ Part of Butser Hill SAC lies within the Queen Elizabeth Country Park, run by Hampshire County Council and the Hampshire Wildlife Trust. Butser Hill does have footpaths and public rights of way crossing it and has been subject to organised recreational events numerous times in the past (such as ‘Butserfest’ and various country fairs). This implies that while calcareous grassland can be damaged by repeated excessive recreational trampling over long periods of time, the grasslands of Butser Hill SAC are not considered to be particularly vulnerable to well-managed recreational pressure and activity, even when relatively large events are held. This was the conclusion of the HRA of the East Hampshire Local Plan; Joint Core Strategy HRA, with which Natural England concurred.” And

“Visitor surveys undertaken by UE Associates for the East Hampshire Hangers SAC to support the Whitehill Bordon development in East Hampshire indicated that the access points surveyed for East Hampshire Hangers SAC were among the least frequented by visitors (compared to the other European sites surveyed such as Wealden Heaths SPA). Only 3% of the people included in the Whitehill & Bordon visitor survey visited East Hampshire Hangers SAC over the survey period. While parts of the Hangers are used by visitors, the steepness of the scarps provides an inherent limit on human activity while the absence of car parks limits the number of people (except from the immediate local area) present at any time. Sunken lanes also physically limit the extent of off-track activity. Levels of recreational use are relatively low on that SAC, such that there remains a ‘sense of tranquillity, remoteness and space that results from the overall low incidence of human activity and absence of development’.

Gradual track erosion is a potential issue within portions of these SACs. In East Hampshire Hangers, where erosion has been greatest on the track and lane sides the chalk and greensand is exposed in places with overhanging tree roots. This erosion appears to stem from a combination of vehicles, surface water and people. However, it is localised and gradual and there is no indication that it is leading to or likely to lead to an adverse effect on the integrity of the SAC within the foreseeable future. As such, this impact pathway is screened out upon these SACs. This is in line with the conclusion of the East Hampshire Local Plan Joint Core Strategy HRA which considered housing at Liss, Alton, Petersfield and other settlements within the catchment of the East Hampshire Hangers SAC but identified that due to a combination of low visitor numbers and the inherent nature of the SAC an adverse effect would not arise. Since the housing numbers proposed in the National Park Local Plan are in line with those considered in the Joint Core Strategy HRA this conclusion still stands.”

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4.72 Although part of the plan area is within the 13.8km ZOI of New Forest SAC/SPA/Ramsar, it is separated from the Habitats Site by Solent Water. Actual travel distance is therefore significantly further than the ZOI (at least 30 km by road). The ZOI was established through visitor survey, and a 2021 report by Footprint Ecology (see reference 45) provides clarification on the application of the ZOI, which has scope for adjustment to reflect specific circumstances. It recommends the exclusion of Winchester (and some other districts) from the 13.8km ZOI, based on low visitor levels, but recommends that large residential developments just outside the ZOI, i.e. those within 15km of the SAC/SPA/Ramsar should be considered on a case by case basis. The report suggests that this applies to developments of 200 or more dwellings, although Natural England, in their comments on the Reg.18 HRA (see Appendix C) recommend that 'large development' is considered to be EIA development, i.e. Schedule 1 or Schedule 2 development, as defined by the Town and Country Planning (Environmental Impact Assessment) Regulations 2011 (as amended) [See reference 49]. For residential development ('urban development projects' in Schedule 2), EIA is required if the development includes more than 150 dwellings, or the overall area of development exceeds 5ha.

4.73 The need for EIA is confirmed at the planning application stage and is dependent on the specific development proposals. For the purposes of the HRA screening, and taking a precautionary approach, site allocations have been screened on the basis of their total site area and capacity (e.g. number of homes).

4.74 The following residential site allocations are therefore within ZOIs for Habitats Sites:

- Solent & Southampton Water SPA/Ramsar: H16, H18, KN1, SH2, SH3, WC1 (510 homes and at least 30 traveller pitches, within 5.6km ZOI).
- Chichester & Langstone Harbours SPA/Ramsar: SH1 (250 homes within 5.6km ZOI).

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- Portsmouth Harbour SPA: H18, KN1, SH1, SH3 (480 homes and 30 traveller pitches, within 5.6km ZOI). Note that a small part of D1 Denmead Neighbourhood Plan Area and its 100 homes also falls within the ZOI.
- Solent & Dorset Coast SPA: as for all three of the above (1240 homes and at least 30 traveller pitches, within 5.6km ZOI; plus any from D1 Denmead Neighbourhood Plan Area).
- New Forest SAC, SPA & Ramsar: HU1, KN1, SH2 (400 homes in large (>150 homes / 5ha) developments within 15km ZOI). Note that HU1 is only allocated for 20 homes, but the Neighbourhood Plan area is >5ha so has been included as a precaution.
- Mottisfont Bats SAC: no site allocations within 6.0km ZOI.

4.75 There may also be FLL that is sensitive to recreation pressure associated with Solent & Southampton Water SPA/Ramsar within the Plan area (around Hamble).

4.76 There are no residential site allocations within the ZOI for Mottisfont Bats SAC and there is unlikely to be any significant residential development within 7.5km as this is a rural area where small scale development only is permitted. Recreation pressure associated with this site has therefore been screened out.

4.77 The following policies could result in residential development or tourism (in addition to associated residential site allocations), and therefore an increase in recreation pressure, within the Plan area:

- Policy SP3: Development in the countryside;
- Policy CN5: Renewable and low carbon energy schemes;
- Policy CN6: Micro energy generation schemes;
- Policy CN7: Energy storage;
- Policy NE12: Equestrian development;

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- Policy NE13: Leisure and recreation in the countryside;
- Policy H1: Housing provision;
- Policy H4: Development within settlements;
- Policy H9: Purpose built student accommodation;
- Policy H12: Provision for Gypsies, Travellers and Travelling Showpeople;
- Policy E3: Town centres strategy and hierarchy
- Policy E9: Economic development in the rural area; and
- Policy E11: Visitor-related development within the countryside.

4.78 There is potential for likely significant effects to occur in relation to change to recreation pressure at New Forest SAC/SPA/Ramsar, Solent & Southampton Water SPA/Ramsar, Chichester & Langstone Harbours SPA/Ramsar, Portsmouth Harbour SPA, and Solent & Dorset Coast SPA. This therefore requires further consideration at Appropriate Assessment.

Screening conclusion

4.79 Appropriate Assessment is required as some likely significant effects from the Local Plan, alone or in combination with other projects or plans, cannot be ruled out without further assessment.

4.80 The scope of the Appropriate Assessment has been narrowed down by considering each policy in turn, to determine whether it would result in the type of development that could have an effect on a Habitats Site; this is set out in **Appendix B**. The policies for which likely significant effects have not been ruled out are summarised in **Table 4.4**: Policies in the Local Plan giving rise to the need for Appropriate Assessment . A summary of the screening of site allocations is provided in **Table 4.5**.

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4.81 Table 4.6 summarises the Screening conclusions reached in this HRA, in relation to impact type and Habitats Site. The following categories are used:

- Screened in - as Local Plan is considered likely to have a likely significant effect alone (or in combination).
- No LSE (likely significant effect) – as impact of Local Plan unlikely to be significant on its own or in combination.
- Screened out (no impact pathway) – due to distance thresholds/lack of sensitivities of qualifying features as discussed in this chapter.

Table 4.4: Policies in the Local Plan giving rise to the need for Appropriate Assessment

Plan policy	Likely effect if proposal is implemented
Policy SP3: Development in the countryside	Air pollution Changes in water quality / quantity Non-physical disturbance Physical damage / loss Fragmentation / severance Recreation pressure
Policy CN5: Renewable and low carbon energy schemes	Air pollution Changes in water quality / quantity Physical damage or loss of habitat Non-physical disturbance
Policy CN6: Micro energy generation schemes	Air pollution Changes in water quality / quantity Physical damage or loss of habitat Non-physical disturbance
Policy CN7: Energy storage	Changes in water quality / quantity Physical damage or loss of habitat

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Plan policy	Likely effect if proposal is implemented
	Non-physical disturbance
Policy NE12: Equestrian development	Air pollution Changes in water quality / quantity Non-physical disturbance Physical damage / loss Fragmentation / severance Recreation pressure
Policy NE13: Leisure and recreation in the countryside	Air pollution Changes in water quality / quantity Non-physical disturbance Physical damage / loss Fragmentation / severance Recreation pressure
Policy H1: Housing provision (15,465 homes over the Plan period: Winchester town: 5,640 homes; South Hampshire urban areas: 5,650 homes; Market towns and rural areas: 3,825 homes, of which 350 in SDNP Local Plan)	Air pollution Changes in water quality / quantity Non-physical disturbance Physical damage / loss Fragmentation / severance Recreation pressure
Policy H4: Development within settlements	Air pollution Changes in water quality / quantity Non-physical disturbance Physical damage / loss Fragmentation / severance Recreation pressure
Policy H9: Purpose built student accommodation	Air pollution Changes in water quality / quantity

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Plan policy	Likely effect if proposal is implemented
	Non-physical disturbance Physical damage / loss Fragmentation / severance Recreation pressure
Policy H12: Provision for Gypsies, Travellers and Travelling Showpeople	Air pollution Changes in water quality / quantity Non-physical disturbance Physical damage / loss Fragmentation / severance Recreation pressure
Policy E2: Spatial distribution of economic growth	Air pollution Changes in water quality / quantity Non-physical disturbance Physical damage / loss Fragmentation / severance
Policy E3: Town centres strategy and hierarchy	Air pollution Changes in water quality / quantity Non-physical disturbance Recreation pressure
Policy E8: Local shops, services and facilities	Air pollution Changes in water quality / quantity Non-physical disturbance
Policy E9: Economic development in the rural area	Air pollution Changes in water quality / quantity Non-physical disturbance Recreation pressure
Policy E10: Farm diversification	Air pollution Changes in water quality / quantity

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Plan policy	Likely effect if proposal is implemented
Policy E11: Visitor-related development within the countryside	Air pollution Changes in water quality / quantity Non-physical disturbance Recreation pressure

Table 4.5: Screening summary: site allocations

Type of impact	Screening criteria (Development site could have a significant effect if...)	Potential development sites meeting screening criteria (sites to be considered in Appropriate Assessment)
Physical damage and loss of habitat Fragmentation and severance	Development occurs within or immediately adjacent to a Habitats Site or functionally linked habitat.	No allocated sites are within a Habitats Site. Sites W6 and SH2 are adjacent to Habitats Sites. Parts of SH2 were surveyed as potential FLL and identified as 'low use site' as part of the Solent Waders and Brent Goose Strategy work. Further allocations may be present in areas of FLL that have not yet been surveyed/identified.
Non-physical disturbance	Development occurs within 500m of a Habitats Site or functionally linked habitat that supports qualifying features susceptible to impacts from non-physical disturbance, such as vibration, noise or light; i.e. development within 500m of: <ul style="list-style-type: none"> ■ River Itchen SAC (and its FLL) ■ Solent & Southampton Water SPA/Ramsar (and its FLL) 	River Itchen SAC (and its FLL): KW1, KW2, NA1, NA3, W3, W4, W5, W6, W7, W9, W10, CC3. Solent & Southampton Water SPA/Ramsar (and its FLL): SH2
Air pollution	Development increases traffic flows by at least 1,000 AADT or 200 AADT (alone or in combination) on the following road:	All allocated sites (in combination).

Type of impact	Screening criteria (Development site could have a significant effect if...)	Potential development sites meeting screening criteria (sites to be considered in Appropriate Assessment)
	<ul style="list-style-type: none"> ■ River Itchen SAC: M3 	
Changes in water quantity or quality	Development extracting from or discharging to the Test and Itchen Catchment (River Itchen SAC plus Solent & Dorset Coast SPA, Solent & Southampton Water SPA/Ramsar and Solent Maritime SAC) or East Hampshire Catchment (Solent & Dorset Coast SPA, Solent & Southampton Water SPA/Ramsar and Solent Maritime SAC)	<p>All sites allocations could increase abstraction / discharge in these catchments.</p> <p>In addition, developments in close proximity to Habitats Sites could result in direct run off (e.g. during construction). Sites within 500m of Habitats Sites are:</p> <ul style="list-style-type: none"> ■ River Itchen SAC: KW1, KW2, NA1, NA3, W3, W4, W5, W6, W7, W9, W10, CC3 ■ Solent & Southampton Water SPA/Ramsar and Solent Maritime SAC: SH2
Recreation pressure	<p>Increases in population are likely to result in significant increases in recreation at a Habitats Site, either alone or in-combination.</p> <p>Residential/tourism site allocations within 5km ZOI of:</p> <ul style="list-style-type: none"> ■ Shortheath Common SAC 	<p>ZOIs fall outside the Plan area for:</p> <ul style="list-style-type: none"> ■ Shortheath Common SAC, ■ Woolmer Forest SAC, ■ Wealden Heaths Phase 2 SPA <p>No residential/tourism site allocations within the ZOIs for:</p> <ul style="list-style-type: none"> ■ Mottisfont Bats SAC

Type of impact	Screening criteria (Development site could have a significant effect if...)	Potential development sites meeting screening criteria (sites to be considered in Appropriate Assessment)
	<ul style="list-style-type: none"> ■ Woolmer Forest SAC ■ Wealden Heaths Phase 2 SPA <p>Residential/tourism site allocations within 5.6km ZOI of:</p> <ul style="list-style-type: none"> ■ Solent & Southampton Water SPA/Ramsar ■ Chichester & Langstone Harbours SPA/Ramsar ■ Portsmouth Harbour SPA ■ Solent & Dorset Coast SPA <p>Residential/tourism site allocations within 7.5km ZOI of:</p> <ul style="list-style-type: none"> ■ Mottisfont Bats SAC <p>Large (e.g. >150 homes / 5ha) residential/tourism site allocations within 15km ZOI of:</p> <ul style="list-style-type: none"> ■ New Forest SAC/SPA/ Ramsar 	<p>Residential/tourism site allocations within ZOIs for:</p> <ul style="list-style-type: none"> ■ Solent & Southampton Water SPA/Ramsar: H16, H18, KN1, SH2, SH3, WC1. ■ Chichester & Langstone Harbours SPA/Ramsar: SH1. ■ Portsmouth Harbour SPA: H18, KN1, SH1, SH3. Note that a small part of D1 Denmead Neighbourhood Plan Area and its 100 homes also falls within the ZOI. ■ Solent & Dorset Coast SPA: as for all three of the above. ■ New Forest (developments >150 homes / 5ha): HU1, KN1, SH2

Table 4.6: Summary of screening assessment

Habitats Site	Physical damage / loss	Non-physical disturbance	Air pollution	Changes in water quality or quantity	Recreation pressure
Butser Hill SAC	Screened out (no pathway)	Screened out (no pathway)	Screened out (no LSEs)	Screened out (no pathway)	Screened out (no LSEs)
Chichester & Langstone Harbours SPA/Ramsar	Screened out (no pathway)	Screened out (no pathway)	Screened out (no LSEs)	Screened out (no pathway)	Screened in
East Hampshire Hangers SAC	Screened out (no pathway)	Screened out (no pathway)	Screened out (no pathway)	Screened out (no pathway)	Screened out (no LSEs)
Emer Bog SAC	Screened out (no pathway)	Screened out (no pathway)	Screened out (no pathway)	Screened out (no pathway)	Screened out (no pathway)
Kingley Vale SAC	Screened out (no pathway)	Screened out (no pathway)	Screened out (no pathway)	Screened out (no pathway)	Screened out (no pathway)
Mottisfont Bats SAC	Screened out (no pathway)	Screened out (no pathway)	Screened out (no pathway)	Screened out (no pathway)	Screened out (no LSEs)
New Forest SAC/SPA/Ramsar	Screened out (no pathway)	Screened out (no pathway)	Screened out (no LSEs)	Screened out (no pathway)	Screened in
Porton Down SPA	Screened out (no pathway)	Screened out (no pathway)	Screened out (no LSEs)	Screened out (no pathway)	Screened out (no pathway)

Chapter 4 HRA Screening

Habitats Site	Physical damage / loss	Non-physical disturbance	Air pollution	Changes in water quality or quantity	Recreation pressure
Portsmouth Harbour SPA /Ramsar	Screened out (no pathway)	Screened out (no pathway)	Screened out (no LSEs)	Screened out (no pathway)	Screened in
River Itchen SAC	Screened in (incl FLL)	Screened in (incl FLL)	Screened in	Screened in (incl FLL)	Screened out (no LSEs)
Rook Clift SAC	Screened out (no pathway)	Screened out (no pathway)	Screened out (no pathway)	Screened out (no pathway)	Screened out (no pathway)
Salisbury Plain SAC	Screened out (no pathway)	Screened out (no pathway)	Screened out (no LSEs)	Screened out (no pathway)	Screened out (no pathway)
Shortheath Common SAC	Screened out (no pathway)	Screened out (no pathway)	Screened out (no pathway)	Screened out (no pathway)	Screened out (no LSEs)
Solent & Dorset Coast SPA	Screened out (no pathway)	Screened out (no pathway)	Screened out (no pathway)	Screened in	Screened in
Solent & Isle of Wight Lagoons SAC	Screened out (no pathway)	Screened out (no pathway)	Screened out (no pathway)	Screened out (no pathway)	Screened out (no pathway)
Solent Maritime SAC	Screened in	Screened out (no pathway)	Screened out (no LSEs)	Screened in	Screened out (no pathway)
Solent & Southampton Water SPA/Ramsar	Screened in (incl FLL)	Screened in (incl FLL)	Screened out (no LSEs)	Screened in (incl FLL)	Screened in

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Habitats Site	Physical damage / loss	Non-physical disturbance	Air pollution	Changes in water quality or quantity	Recreation pressure
Wealden Heaths Phase 2 SPA	Screened out (no pathway)	Screened out (no pathway)	Screened out (no LSEs)	Screened out (no pathway)	Screened out (no LSEs)
Woolmer Forest SAC	Screened out (no pathway)	Screened out (no pathway)	Screened out (no LSEs)	Screened out (no pathway)	Screened out (no LSEs)

Chapter 5

Appropriate Assessment

5.1 The HRA screening has identified the need for Appropriate Assessment, as certain likely significant effects from the Local Plan (alone or in combination with other projects or plans) cannot be ruled out without further assessment or information.

5.2 For each type of impact that has been identified as having a likely significant effect, the Appropriate Assessment considers the scale and likely impacts on each of the Habitats Sites, the elements of the Local Plan (and other plans or projects, where relevant) that would have those effects, and any mitigation or safeguards in place that would avoid or reduce the effects. The assessment then considers whether there would be an adverse effect on the integrity of a Habitats Site.

5.3 The Appropriate Assessment assesses the Local Plan, using currently available information. Where there is insufficient information to undertake quantitative assessment, the HRA identifies the information that will be required to do so (see also **Chapter 6**).

5.4 The following policies and all site allocations in the Local Plan will result in the type of development or activities that could affect Habitats Sites (see **Table 4.4**):

- Policy SP3: Development in the countryside
- Policy CN5: Renewable and low carbon energy schemes
- Policy CN6: Micro energy generation schemes
- Policy CN7: Energy storage
- Policy NE12: Equestrian development

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- Policy NE13: Leisure and recreation in the countryside
- Policy H1: Housing provision
- Policy H4: Development within settlements
- Policy H9: Purpose built student accommodation
- Policy H12: Provision for Gypsies, Travellers and Travelling Showpeople
- Policy E2: Spatial distribution of economic growth
- Policy E3: Town centres strategy and hierarchy
- Policy E8: Local shops, services and facilities
- Policy E9: Economic development in the rural area
- Policy E10: Farm diversification
- Policy E11: Visitor-related development within the countryside

Physical damage and loss of habitat

5.5 The HRA screening (Chapter 4) identified the potential for likely significant effects arising from physical damage or loss of habitat at River Itchen SAC, Solent & Southampton Water SPA/Ramsar or Solent Maritime SAC, where development is within or adjacent to a Habitats Site; or where development could occur on functionally linked land (FLL) associated with River Itchen SAC (riparian/wetland habitats used by otter, or lowland fens used by southern damselfly) or Solent & Southampton Water SPA/Ramsar (habitats within 2km of the coast/estuaries, including the Hamble, used by wildfowl/wading birds). Note that this section considers the loss or damage of terrestrial habitats; damage to water quality is addressed in the water quality and quantity section below.

5.6 None of the site allocations are within the Habitats Sites, but W6 is adjacent to River Itchen SAC and SH2 is adjacent to Solent & Southampton Water SPA/Ramsar and Solent Maritime SAC. The location of FLL associated with the

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River Itchen SAC is unconfirmed, but parts of SH2 were surveyed as potential FLL and identified as 'low use site' as part of the Solent Waders and Brent Goose Strategy work.

5.7 The potential for effects on these Habitats Sites arises for the following reasons:

- Some policies permit development in locations outside site allocations and therefore exact location is unknown;
- Although some areas of FLL are known, some might only be identified through ecological survey of development sites; and
- Some of the site allocations are adjacent to Habitats Sites; without environmental controls during construction, there could be accidental damage to habitats within the Habitats Sites.

5.8 The HRA screening is not able to take into account mitigation. The Appropriate Assessment therefore considers what safeguards and mitigation are in place to prevent these effects from occurring.

5.9 The main policy protections within the Local Plan are 'Policy NE1: Protecting and enhancing biodiversity and the natural environment in the district' and Policy NE5: Biodiversity. Relevant excerpts are provided below:

Policy NE1: Protecting and enhancing biodiversity and the natural environment in the district

Development will only be permitted where it demonstrates that it will protect and enhance the natural environment and biodiversity including the natural beauty of the landscape, all natural resources, habitats and species; and

i. Avoids significant harm to the natural environment, biodiversity and geodiversity or can adequately mitigate any harm arising and can clearly demonstrate that there will be no adverse impact on the conservation status of key species, internationally protected sites, nationally protected designated sites, or locally designated sites and there will be no net loss or deterioration of a key habitat type including irreplaceable habitats and the integrity of linkages between designated sites and key habitats;

ii. Safeguards features of the natural environment and nature conservation interest and makes nature based solutions part of the plans to tackle the climate emergency. These should include measures to retain, conserve and enhance habitats, including, internationally, nationally and locally designated sites, priority habitats, networks of ecological interest, ancient woodland, water features, hedgerows and wetland pastures as corridors and stepping- stones for wildlife;

iii. Does not harm/degrade the Ecological Network or result in its fragmentation;

iv. Development which would result in the loss or deterioration of irreplaceable habitats, including ancient woodland and ancient or veteran trees, will only be permitted in exceptional circumstances where the public benefit would clearly outweigh the loss or deterioration and where a suitable compensation strategy exists;

v. Normally any mitigation, compensation and enhancement measures are required to be delivered on-site, unless special circumstances dictate that off-site mitigation or compensation is more appropriate. A financial contribution - in lieu of on-site mitigation - will only be considered in limited

circumstances and where it is demonstrated that the proposed mitigation is deliverable and effective; and

vi. Protects, conserves and enhances the air and water environments in the district.

5.10 and:

Policy NE5: Biodiversity

The Local Planning Authority will require, in accordance with the Environment Act 2022, development to deliver a minimum of 10% measurable net gain in biodiversity to be maintained for a period of 30 years in accordance with the Environment Act and latest DEFRA Biodiversity Metric; and

- i. Protects sites of international, and national importance, and local nature conservation sites and SINCS, from inappropriate development;
- ii. Supports habitats that are important to maintain the integrity of Habitats sites;
- iii. Supports the delivery of nature-based solutions as part of the development proposals and shows how biodiversity can be retained, protected and enhanced through its design and implementation, for example by designing for wildlife, delivering measurable BNG and BAP targets and enhancing Biodiversity Opportunity Areas, Local Ecological

Networks/Local Nature Recovery Areas, Local Nature Recovery Network and include a management plan for a period of 30 years;

iv. New development will be required to avoid adverse impacts, or if unavoidable ensure that impacts are appropriately mitigated, including impacts on functionally linked land. Developments within 500 metres of a Habitats Site or its FLL should produce a Construction Environmental Management Plan (CEMP) to address potential impacts to these habitats during the construction phase.

v. Mitigates the effects of recreational pressure on Habitats Sites in line with Bird Aware Solent and the New Forest Recreational Management Strategy where appropriate, or an agreed approach with Natural England;

vi. Development proposals will only be supported if the benefits of the development clearly outweigh the harm to the habitat and/or species; with compensation measures used only as a last resort. However, in line with the Habitats Regulations, adverse effects on the integrity of Habitats Sites must be avoided; compensation will not be appropriate where there is harm to the habitats or species of a Habitats Site; [...]

5.11 The supporting text of Policy NE5 provides further explanation in relation to FLL:

5.12 “The HRA identifies that there may be impacts from development in areas outside of the European site boundaries that may occur where habitat contributes towards maintaining the interest feature for which the site is designated. This is known as ‘functionally linked land (FLL)’. The FLL maintains and restores a protected population such as birds and bats at the favourable conservation status. Non-physical disturbance such noise and vibration during

the construction of new housing and artificial light at night can cause adverse effects on protected populations therefore it must be demonstrated that these are avoided where possible.”

5.13 ‘Policy NE17: Rivers, watercourses and their settings’ (relevant excerpts, below) provides additional safeguards, where development could be permitted close to a river:

Policy NE17: Rivers, watercourses and their settings

Development proposals that affect rivers, watercourses or their settings will be permitted where they conserve and enhance the following;

i) Water quality and quantity, and help achieve requirements of the European Water Framework Directive, and Habitats Regulations or their replacement, in the case of developments in proximity to the River Itchen SAC, and Upper Hamble (Solent Maritime SAC, and Solent & Southampton Water SPA/Ramsar), and habitats relied upon as identified in the Solent Wader and Brent Goose Strategy (SWBGS);

[...]

The loss of habitats identified as ‘Primary Support Areas’, ‘Secondary Support Areas’ or ‘Low Use’ sites in the SWBGS do not require HRA but mitigation / compensation should be provided in line with the SWBGS.

5.14 These policies must align with the Solent Waders and Brent Goose Strategy [See reference 50], which sets the framework for mitigation and off-setting requirements to protect the Solent Habitats Sites’ bird species using

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FLL. A link to the mapping which identifies the location of FLL identified as part of the SWBGS is included in the supporting text of Policy NE17. The need for mitigation is defined according to the extent to which a habitat provides support to the species of the Habitats Sites, as summarised below:

- Core areas: development having an impact on these must undertake HRA. Ideally they will be protect, or as a minimum replaced by a suitable replacement site of equal or greater size/quality, to fully replace its ecological function.
- Primary support areas: where loss cannot be avoided or mitigated on site, offsetting may be permitted to ensure the continued ecological function of the wader and brent goose sites is maintained and enhanced.
- Secondary support areas: loss or damage is discouraged and on-site avoidance/mitigation should be considered wherever possible. A more flexible approach may be taken to provide the continued ecological function of the network.
- Low use sites: The in-combination loss of these sites would impact on the continued ecological function of the wader and brent goose network; and proportionate mitigation, off-setting and/or enhancement measures will be required.
- Candidate sites: Depending on the existing records for the site, a minimum of one year survey, in appropriate management conditions, will be necessary to confirm the classification of the site.

5.15 Additional general protection is also contained within:

- Policy D2: Design principles for Winchester town states that development (in the town) should consider “the potential impacts on the River Itchen SSSI and SAC”.
- Policy D5: Masterplans: requires ‘significant development on sites occupied by major landowners/users’ to achieve the following: “xv. Demonstrate a good understanding and respect for the natural and historic environment, its assets and their setting both within the site and in the

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wider locality, whether designated or not, and include details of how the natural environment and heritage assets will be preserved, conserved and enhanced (general protection).”

5.16 These policies are considered sufficient to ensure that development in or adjacent to a Habitats Site or FLL would either not be permitted or would be required to demonstrate sufficient mitigation to avoid adverse effects on the integrity of the Habitats Site, due to physical damage or loss of (terrestrial) habitats.

5.17 There will be no adverse effects on the integrity of River Itchen SAC, Solent & Southampton Water SPA/Ramsar and Solent Maritime SAC due to physical damage and loss of habitat of FLL associated with it.

Non-physical disturbance

5.18 The HRA screening identified the potential for likely significant effects arising from non-physical disturbance at River Itchen SAC and Solent & Southampton Water SPA/Ramsar, where development is within 500m of a Habitats Site; or where development could occur on functionally linked land (FLL) associated with these sites. Several site allocations (KW1, KW2, NA1, NA3, W3, W4, W5, W6, W7, W9, W10, CC3) are within 500m of the SAC and SH2 is within 500m of the SPA/Ramsar. A number of policies also permit development outside of site allocations.

5.19 The potential for these effects arises for the same reasons as for physical damage and loss of habitat, i.e. some allocations known to be within 500m and some unknowns relating to development locations and FLL.

5.20 Non-physical disturbance (light, noise and vibration) can result in species not using a habitat, but can also discourage movement between habitat (fragmentation).

5.21 As with effects relating to physical damage and loss of habitat, Policies NE1 and NE5 provide the main general protection of the Habitats Sites. Policies D2, D5 and NE5 provide additional general protection for biodiversity. Policy NE5 makes specific reference to the potential for impacts from non-physical disturbance on birds using FLL (see paragraph 5.10) and requires developments within 500m of a Habitats Site or FLL to produce a Construction Environmental Management Plan (CEMP). The supporting text of NE5 (see paragraph 5.11) explains that risks to FLL include non physical disturbance such as light, noise and vibration.

5.22 Additional protection is provided by the following policies:

- Policy NE8: South Downs National Park requires development in close proximity to the National Park (and therefore River Itchen SAC) to follow dark skies guidance on lighting.
- Policy NE14: Rural character: States that development in rural areas must not have an unacceptable impact e.g. from lighting or noise. Developments must demonstrate that opportunities to reduce light pollution have followed mitigation hierarchy.

5.23 There will be no adverse effects on the integrity of River Itchen SAC or Solent & Southampton Water SPA/Ramsar due to non-physical disturbance of the their qualifying features or FLL used by them.

Air pollution

5.24 The HRA Screening identified the potential for significant effects from site allocation W5 Bushfield Camp, at one Habitats Site within 200m of a major road:

- River Itchen SAC: M3

5.25 Air quality data from APIS [See reference 51] provides critical loads for air pollution at Habitats Sites, which defines a level below which harm would not be expected to occur. For the River Itchen SAC there is no nutrient nitrogen or acid critical load for the SAC's qualifying habitat ('Water courses of plain to montane levels with the *Ranunculus fluitans* and *Callitriche-Batrachion* vegetation; Rivers with floating vegetation often dominated by water-crowfoot') or for most of its qualifying species, which rely on the SAC's freshwater habitat. However, there is an ammonia critical load for the qualifying habitat (1 or 3 $\mu\text{g}/\text{m}^3$) and there is a critical load for Southern dragonfly (*Coenagrion mercuriale*), because of its association with 'dwarf shrub heath' habitats. Current ammonia levels at the SAC are not provided on APIS, but ammonia was identified as a pollutant requiring assessment in the HRA by Natural England, in response to the Reg.18 consultation (see Appendix C), and its inclusion in air quality assessment is consistent with other local HRAs that have assessed the effects of air pollution on the River Itchen SAC (for example the HRAs of the Fareham [See reference 52] and Eastleigh [See reference 53] Local Plans).

5.26 The HRA of the Fareham Local Plan stated that:

Coenagrion mercuriale -Southern damselfly (S1044) is the only feature listed on APIS with a CL for nutrient nitrogen deposition (CL range is 10-20 kgN/ha-year) and acid deposition (MinCLMaxN is 0.922 kEq/ha-year), both associated with the broad habitat Dwarf shrub heath. Within the River Itchen SAC, the Southern damselfly is found in a managed chalk-river flood plain, which is better described as the EUNIS habitat classification Rich fens (EUNIS D4.1) rather than Dwarf shrub heath (EUNIS F4.11). According to APIS, the Rich fens habitat has a CL for nutrient nitrogen of 15-30 kgN/ha-year and is not sensitive to acid deposition. This approach has been confirmed with Natural England and is consistent with the approach taken in the Eastleigh Local Plan HRA.

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5.27 The acid deposition levels at River Itchen SAC remain the same as those referenced at the time of the Fareham HRA (2020). It is proposed that critical loads for southern damselfly are taken with reference to 'rich fens habitat', rather than 'dwarf shrub heath'; and that effects from acid deposition are screened out for the same reason. The SAC's southern damselfly habitat is sensitive to nitrogen deposition, and APIS data shows that nitrogen deposition at the site currently ranges from 13.3 kg/ha/year to 15.7 kg/ha/year, which exceeds the minimum critical load for rich fens habitat.

5.28 The effects would arise from site allocation W5 Bushfield Camp. As the traffic data shows an increase in traffic on roads passing River Itchen SAC of 1,000 AADT or more, air quality assessment will be required to inform an assessment of the development through the planning application.

5.29 The following wording has been incorporated into the Local Plan, in consultation with Natural England:

Policy W5 Bushfield Camp

"Where it has been demonstrated that the proposals will have a significant adverse effect on the integrity of the River Itchen SAC it must be demonstrated, as part of the design process, that adequate measures in line with Policy NE1 and Policy D7 will be put in place to avoid or mitigate any adverse effects. Such measures must be agreed with the Council and Natural England.

In order to assist the Council in carrying out a Habitats Regulations Assessment of the proposal, the developer will be required to provide evidence to inform the Appropriate Assessment. This is likely to include an air quality assessment of the effects of the development on the River Itchen SAC as a result of any increase in traffic associated with the development.

The effects on local roads in the vicinity of the proposed development on nearby designated nature conservation sites, and the impacts on vulnerable sites from air quality effects on the wider road network in the area can be assessed using traffic projections and the 200m distance criterion followed by local air quality modelling where required.”

5.30 Policy NE1 is quoted in paragraph 5.9. Policy D7 states that:

Proposals should comply with all national statutory standards relating to environmental quality and include a statement setting out how such requirements have been met, where relevant, in designing the proposal. The potential for unacceptable pollution, resulting in adverse health or quality of life impacts, should be addressed by applications. Where there is potential for adverse impacts to occur on the following matters a proportionate assessment should be conducted:

- Odour;
- Light intrusion/glare;
- Ambient air quality;
- Groundwater and surface water pollution;
- Contaminated land; and
- Construction phase pollution impacts for large or prolonged developments. The report should identify and detail any mitigation measures that are necessary to make the development acceptable in respect of the adverse impacts on health and quality of life. The Local Planning Authority may require specific mitigation measures to be undertaken in order to make developments acceptable in terms of matters relating to pollution.

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5.31 The requirement for site allocation W5 Bushfield Camp to assess, and if necessary mitigate, the effects of traffic associated with the proposed development, along with the overarching protection within the Local Plan that ensure that development that has an adverse effect on a Habitats Site would not be permitted, are sufficient to avoid adverse effects on integrity.

5.32 The following policies could also reduce traffic and/or contribute to mitigation for air pollution:

- Policy NE1: Protecting and enhancing biodiversity and the natural environment in the district - states that development will only be permitted where it protects and enhances the natural environment and biodiversity. It provides general protection for Habitats Sites and states that development must demonstrate that it "Protects, conserves and enhances the air and water environments in the district."
- Policy T1: Sustainable and active transport and travel - requires developments to undertake a transport assessment that sets out how it will minimise the need to travel by private car, e.g. with new active travel routes.
- Policy T2: Parking for new developments - requires developments to prioritise sustainable travel when considering parking.
- Policy T3: Enabling sustainable modes of transport and the design and layout of parking for new developments - requires developments to prioritise sustainable travel when considering parking.
- Policy T4: Access for new developments - requires developments to prioritise the needs of walking, wheeling and cycling when considering access.

5.33 There will be no adverse effects on the integrity of the River Itchen SAC or its FLL, due to air pollution.

Changes in water quantity or quality

5.34 The HRA Screening identified the potential for likely significant effects relating to changes in water quantity or quality that could affect River Itchen SAC, Solent & Dorset Coast SPA, Solent & Southampton Water SPA/Ramsar and Solent Maritime SAC.

5.35 These effects could arise as a result of:

- Direct runoff and pollution e.g. accidental spills during construction or surface water drainage, where development is close to River Itchen SAC (or its FLL), Solent & Southampton Water SPA/Ramsar (or its FLL) or Solent Maritime SAC (see paragraph 5.18).
- Abstraction of water from the River Itchen or from the chalk aquifer, reducing flows in the River Itchen SAC.
- Discharge of water into the Itchen, Test, Hamble or Meon catchments, that increases nitrogen or phosphorus within River Itchen SAC, Solent & Southampton Water SPA/Ramsar or Solent Maritime SAC.

Direct run-off

5.36 Direct pollution of the Habitats Sites within the plan area (River Itchen SAC, Solent & Southampton Water SPA/Ramsar, and Solent Maritime SAC) and the hydrologically connected Solent & Dorset Coast SPA could occur due to run-off where development is close to the river, from pollution during construction or via surface water drainage.

5.37 This would damage habitats (water quality), which would in turn affect the qualifying species of the sites. General protection for Habitats Sites and their FLL is provided by the policies identified in relation to 'physical damage and loss of habitat', (NE1, NE5, D2, and D5; see paragraphs 5.9 to 5.12). These

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prevent development that would harm Habitats Sites. Policy NE5 also requires developments within 500m of a Habitats Site or its FLL to prepare a CEMP, which provides additional pollution control safeguards for those developments closest to the river Habitats Sites. Other policies in the Local Plan provide further protection for water quality, as set out below.

5.38 The River Itchen SAC is linked to the aquifers, therefore measures which protect groundwater will also indirectly protect the water quality of the SAC. Policies NE6 and NE17 have been strengthened since the Reg.18 consultation, to provide additional protection for groundwater.

5.39 The requirement for sustainable drainage (SuDS), which includes measures for pollution control in surface water drainage, is within Policy NE6. Relevant excerpts from the policy are below:

Policy NE6: Flooding, Flood Risk and the Water Environment

The local planning authority will permit development provided it avoids flood risk to people and property and complies with the following:

[...]

v. Includes sustainable water management systems such as Sustainable Drainage Systems (SuDS) which must be considered at the outset and should be designed to meet the relevant standards and accompanied by a management plan for the lifetime of the development;

[...]

viii. Prioritise and explore the opportunities for Natural Flood Management for all proposals in areas at risk of flooding for the lifetime of the development before any hard engineering flood defences or water attenuation measures are proposed. These should be designed to maximise the benefit to flood risk management, water quality, biodiversity, and amenity to provide attenuation and biodiversity enhancement.

ix. For major new build development, the presumption should be for the inclusion of above ground features including green roofs/walls, rain gardens, bio-retention areas and swales, and features that provide multi-functional uses to maximise benefit to flood risk management, water quality, biodiversity, and amenity to provide attenuation and biodiversity enhancement. All other developments should at least demonstrate that they have considered such measures.

To account for a changing climate, all drainage systems must be designed to accommodate the requirements of the development site for the lifetime of the development and demonstrate that they are able to function during extreme rainfall events. This should include consideration of likely overland flow paths in the event that drainage systems are overwhelmed or blocked.

The local planning authority will support the development or expansion of water supply, surface water drainage and wastewater treatment facilities including natural flood management schemes. There will be cases where they are needed to serve existing or new development or in the interests of securing long term supply, provided that the need for such facilities is consistent with other policies such as the development strategy, flood risk, contamination and protection of the historic, natural and built environment and water supply.

If there is an overriding reason why SuDS is not achievable this must be evidenced with justification for the alternative approach being taken. Surface water will not be permitted to connect to the foul drainage network.

The local planning authority will support the opening up of culverted watercourses as part of the design process to support ecological and biodiversity improvements, where this has been demonstrated that it is feasible and safe to do so.

5.40 Measures that apply to development that could affect rivers/watercourses are within Policy NE17. Relevant excerpts are:

Policy NE17: Rivers, Watercourses and their settings

Development proposals that affect rivers, watercourses or their settings will be permitted where they conserve and enhance the following;

- i. Water quality and quantity, and help achieve requirements of the Water Framework Directive and Habitats Regulations or their replacement, in the case of the River Itchen SAC and Upper Hamble (Solent Maritime SAC, and Solent & Southampton Water SPA/Ramsar), and habitats relied upon as identified in the Solent Wader and Brent Goose Strategy (SWBGS);
- ii. Ability of groundwater, surface water features and watercourse corridors to function as natural flood management areas by natural processes throughout seasonal variations, within the immediate vicinity, and both upstream and downstream of the site of the proposal including for

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flood risk management purposes; and specifically for surface water features and watercourse corridors;

iii. Increasing biodiversity;

iv. Character, appearance and setting;

v. Public access to and along the waterway for recreational opportunities and the importance of providing canopy shading for both the natural water environment and for people walking beside the waterway;

vi. Include measures to eliminate risk of pollution to groundwater, surface water and watercourse corridor features which would harm their ecological and/or chemical status. [...]

5.41 Additional measures specific to contaminated development sites are contained within Policy D8. Relevant excerpts are:

Policy D8: Contaminated Land

The development of land which is known or suspected to be contaminated, or which is likely to be affected by contamination in the vicinity, will only be permitted where it accords with the Development Plan and there will be no unacceptable impacts on human health, groundwater and surface water, or the wider environment, and:

[...]

ii. Appropriate remedial measures are included to prevent risk to future users of the site, the surrounding area and the environment (including water supplies and aquifers);”

“ 5.89 It is not only essential that development does not directly cause contamination, but also to ensure that it does not establish pathways between potential sources of contamination and “receptors” (i.e. people, the environment or property) that may be impacted by its effects.”

5.42 With these policy safeguards, there will be no adverse effects on the integrity of River Itchen SAC, Solent & Southampton Water SPA/Ramsar, Solent Maritime SAC, or Solent & Dorset Coast SPA due to pollution of water from direct run-off to Habitats Sites or their FLL.

Abstraction

5.43 Abstraction to supply water to new development could result in reduced water levels within River Itchen SAC. Southern Water’s 2019 Water Resource Management Plan [See reference 54] states that South Hampshire takes one third of its water from groundwater (which feeds both the Itchen and the Meon) and two thirds from the River Test and River Itchen. It also says:

“In order to protect the unique chalk rivers in Hampshire, the River Test and River Itchen, we agreed changes to the amount of water we can abstract from them. This means in droughts we only have access to about one fifth of the supplies we need, so we’ve developed a multi-million pound plan to secure alternative resources, including:

- Reducing leaks, installing meters and promoting water efficiency

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- Building a desalination plant on the Solent
- Importing water from South West Water
- Importing water from Portsmouth Water (from the creation of a new reservoir and other sources)

Environmental improvement projects to improve water quality and river flow. These are our preferred options, but we're also exploring others to make sure we secure reliable supplies as soon as possible, such as water recycling. In the meantime, until at least 2027, we've agreed with the Environment Agency that we may need to introduce water restrictions more often to make sure we can maintain vital drinking water supplies during droughts."

5.44 The 2024 WRMP is still in draft form, but the demand forecast [See [reference 55](#)] for the 2019 WRMP provides a connection forecast for Winchester District of 42,973 household connections in 2039-40 against a 2019-20 baseline of 36,267 (an increase of 6,706), which the Local Plan exceeds. However, Southern Water has confirmed (Appendix C) that they will assess the Local Plan's demand for water supply through the planning process and any capacity constraints will be managed through the current regulatory funding mechanism for the reinforcement of the network. Any reinforcements to the water supply infrastructure would be subject to their own HRA.. Winchester Council also has a Statement of Common Ground (SOCG) in preparation with Southern Water, which will confirm agreements on water supply infrastructure such as ensuring compatibility between Southern Water's proposed infrastructure upgrades and Local Plan development; see 'next steps' in Chapter 6.

5.45 In response to the HRA and Sustainability Appraisal (SA) scoping report (see [Appendix C](#)), Natural England commented that:

“The local plan should recognise the current uncertainty with regards to water resources and the impacts of abstraction and drought on protected sites including the River Itchen SAC. The SA should ensure this issue is considered and include objectives for policy to set strict requirements for water consumption (we would advise all new development adopt a higher standard of water efficiency of 100 litres/per person/day including external water use and re-use in line with Southern Water’s Target 100 demand reduction programme) and encourage use of greywater recycling and efficient appliances.”

5.46 In response to the Reg.18 consultation (Appendix C), Natural England also provided the following comments:

“Southern Water’s Water Resources Management Plan (WRMP) 2019, that covers the planning period 2020-2070, projects a significant supply demand deficit during periods of drought in the Western Area, and commits to implementing a long term water resources scheme to restore the supply demand balance whilst avoiding and/or mitigating impacts on European sites, including the River Itchen Special Area of Conservation (SAC).

It is Natural England’s advice that in advance of any permitting of such a suitable long term scheme, uncertainty remains with regards to water resources and the impacts of abstraction on protected sites.”

5.47 Within the Local Plan, Policy CH4 defines water efficiency principles and standards:

Policy CN4: Water efficiency standards in new developments

Developments will be required to meet a high standards of water efficiency:

i. Residential developments should be designed to achieve a maximum water capacity use of 100 litres/ person/day from mains/private water supply in order to help manage the demand for water unless it can be demonstrated that this is not feasible. Policy CN 4 Water efficiency standards in new developments

ii. Any refurbishments and other nondomestic development would be required to meet BREEAM water efficiency credits.

iii. Water use management and conservation (e.g. rainwater recycling and grey water harvesting) is dealt with under Policy CN1.

5.48 The wording of Policy CN4 addresses Natural England’s request for a 100l/person/day standard (above), which was reiterated in their comments in response to the Reg.18 consultation (see Appendix C).

5.49 The 2019 WRMP proposed measures to manage water supply during drought periods that would have had an adverse effect on the integrity of the River Itchen SAC. Because of this, Southern Water had to demonstrate that there were ‘Imperative Reasons of Overriding Public Interest’ (IROPI; see also paragraph 1.19), in order to permit the 2019 WRMP proposals (to 2030, when the Environment Agency have said that they will cease drought orders on the River Itchen). As part of this, compensatory work was required (see paragraphs 3.9 and 3.10). However, in the 2024 draft WRMP, progress has been made towards measures to balance supply and demand that will not result in adverse effects on the River Itchen SAC, and the HRA of the dWRMP states that “it can

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be reasonably concluded at this Plan stage that with that mitigation secured, the WRMP24 options will not have an adverse effect on the integrity of any SACs, SPAs and Ramsar sites, alone or in combination”.

5.50 In addition to Southern Water’s legislative requirement to supply water to the region, the following policy also includes a requirement for developers to confirm water supply to developments:

- Policy NE6: Flooding and flood risk: encourages the use of SuDS and requires developments to ensure that “water supply, surface water drainage and wastewater infrastructure to service new development are provided and connect to the nearest point of adequate capacity where feasible“.

5.51 The SOCG with Southern Water will confirm agreements on water supply and wastewater infrastructure, such as ensuring compatibility between Southern Water’s proposed infrastructure upgrades and Local Plan development. . Adverse effects on the River Itchen SAC due to abstraction for water supply are therefore not anticipated, but this will be confirmed via the SOCG (see Chapter 6).

Wastewater

5.52 Residential development (defined as development resulting in increased overnight stays; including tourist accommodation, student accommodation, new homes), i.e. development which increases demand for wastewater treatment and discharge, increases nutrient levels in the receiving waters.

5.53 The Local Plan area falls within three river catchments that wastewater discharges into: the Test, the Itchen, and East Hampshire. Within the River Itchen catchment, new residential development must demonstrate that it is nutrient neutral for nitrogen and phosphorus, as the River Itchen SAC has high levels of both. In the Test and East Hampshire catchments, nutrient neutrality

applies only to nitrogen, which the Solent Habitats Sites (Solent & Southampton Water SPA/Ramsar, Solent Maritime SAC and Solent & Dorset Coast SPA) have high levels of.

5.54 For these Habitats Sites, likely significant effects would arise from the Local Plan alone and also in combination with other plans and projects, due to an increase in phosphorus (Itchen only) or nitrogen from residential/overnight accommodation development discharging waste water into the Itchen, Test or East Hampshire catchment.

5.55 A number of wastewater treatment works (WTW) discharge into the River Itchen [[See reference 56](#)], as summarised in **Table 5.1**.

Table 5.1: Wastewater treatment works serving the Plan area that discharge into the River Itchen

WTW	Area served	Residential site allocations in these areas
New Alresford	New Alresford	NA1, NA2, NA3
Harestock	Harestock, Kings Worthy, Headbourne Worthy, South Wonston	W1, W2, W4, KW1, KW2, SWO1
Morestead (Winchester)	Winchester (Stanmore, Bar End, Badgers Farm, St Cross, Winnall)	W3, W7, W8, W9, W11
Chickenhall (Eastleigh)	Otterbourne, Shawford, Hursley, Oliver's Battery, Colden Common	OT1, CC1, CC2, CC3, CC4

5.56 The Council has calculated (see Appendix D) that these sites plus windfall development would contribute 6,247.38 Kg/TN/Yr (nitrogen) and 381.08Kg/TP/Yr (phosphorus) to the catchment.

5.57 In addition to the wastewater treatment works discharging into the Itchen catchment (**Table 5.1**), a number of wastewater treatment works (WTWs) discharge into the East Hampshire catchment [**See reference 57**] as summarised in **Table 5.2**.

Table 5.2: Wastewater treatment works serving the Plan area that discharge into Southern Water’s East Hampshire Catchment (River Meon & River Hamble) and River Test catchment

WTW	Area served	Residential site allocations in these areas
East Hampshire		
Bishops Waltham	Bishop’s Waltham, Waltham Chase, Shirrell Heath, Swanmore	BW1, BW2, BW3, BW4, SW1, H16
Wickham	Wickham	KN1, WC1, WK1, WK5, WK6
Peel Common	Curbridge	SH2, SH3, H18
Southwick	Southwick	None
Budds Farm	Waterlooville, Denmead	SH1, D1
Test		
East Gratton	Sutton Scotney	SU01, SW01

WTW	Area served	Residential site allocations in these areas
East Hampshire		
Package treatment plants (PTPs) / septic tanks	n/a	H17

5.58 The Council has calculated (see Appendix D) that these sites plus windfall development would contribute 2,339.91Kg/TN/Yr (nitrogen), of which 1,939.93Kg/TN/Yr is to the East Hampshire catchment and 309.08Kg/TN/Yr is to the Test catchment. With the nitrogen from the Itchen catchment, this gives a total of 8,187.31Kg/TN/Yr to the Solent.

5.59 All developments that result in new overnight accommodation within the Itchen catchment (and the whole Plan area) are required to achieve nutrient neutrality, in line with Natural England’s requirements for mitigation, and as set out in Policy NE16:

Policy NE16: Nutrient Neutrality; water quality effects on the Special Protection Areas (SPAs), Special Areas of Conservation (SACs) and Ramsar sites of the Solent and the River Itchen

i) Planning permission will only be granted where the integrity of nationally protected sites is not adversely affected by new development. When making planning decisions which may affect these sites the requirements of the Habitat Regulations will be met including the carrying out appropriate assessments.” And

“ii) When assessing applications for development the impacts of increased nutrients from these sites will be considered. Permission will be granted only where effects can either be excluded or, if that is not possible, mitigation by nutrient neutrality is achieved following the guidance provided by Natural England thereby avoiding any adverse impact upon the quality of the water environment of the sites.

iii) Development proposals for mitigation schemes such as tree planting or wetlands will be supported where they are located in appropriate areas in relation to the development they are to serve, make a positive contribution to the Local Nature Recovery Network, and the nature of the mitigation would not have adverse impacts on the character, function and appearance of the area in which they are to be located.

5.60 Its supporting text provides further detail:

“The council has for some time needed to consider the impacts of nitrogen and phosphorus in the wastewater produced by ‘overnight’ development across the district on nationally protected sites including the Solent SAC and River Itchen SAC. Overnight development requires the provision of new connections to the foul draining network. As a result this can increase the amount of sewage effluent at waste water treatment works, which may have a cumulative impact on protected habitats with other sources of nitrogen and phosphorus. One approach supported by Natural England which can allow development to proceed is to achieve ‘nutrient neutrality’. It allows development to be permitted if it can be demonstrated that there will be no net increase in nutrient loading in the catchments of the affected nationally protected sites.

The council needs to consider the impacts of nitrogen on the Solent SAC which covers sites in the south of the district. The issues with phosphorus draining into the catchment for the River Itchen covers a significant part of the district including areas to the north and east of Winchester and Natural England advises that phosphorus and nitrogen are causing adverse environmental effects on the quality of the river which is a Special Area for Conservation (SAC).

The council received new guidance from Natural England which will affect the way that the council has to assess new overnight development across the whole district in terms of calculating the impact caused by the waste water they produce. All new overnight development which is likely to have a significant effect on designated sites through increased waste water production will need to produce a nutrient budget. Natural England have produced a Nutrient Budget Calculator alongside guidance on achieving nutrient neutrality . It should be noted that the nutrient budgets have been undertaken for all sites allocated in the Plan and is set out in the Plan Habitats Regulations Assessment.

There are a number of strategic mitigation sites that have been brought forward over the few years by landowners both in the district and neighbouring areas. Developers can acquire nutrient credits from these land owners, which equate to and 'offset' the amount of mitigation required for a development, to ensure that any adverse impact upon the quality of the water environment of protected sites is avoided. The Council have produced a Nutrient Topic Paper, which sets out the supply of nutrient mitigation, including the Council's own mitigation schemes.

The Local Plan may be able to help by allocating land for use in mitigation which could include using nature based solutions such as planting woodland or creating wetland habitat in appropriate locations.”

5.61 To calculate the nitrogen and phosphorus load that would result from the Local Plan and the required mitigation, the Council has prepared a nutrient neutrality topic paper, which sets out the work done to date on nutrient neutrality in the Winchester Local Plan area, an explanation of how the nutrient budgets (Appendix D) have been calculated, and outlines the strategic mitigation for Local Plan development. It states:

“In the plan area there are two potential routes to provide nutrient mitigation. Firstly, direct (on site) mitigation provided by the applicant or site promoter as part of the development such as taking the land out of agricultural use and using the land for an alternative use, e.g. open space.

Secondly the purchase of mitigation credits via off-site delivery such as the creation of wetlands. It is also possible that third party markets in nutrient credits will emerge but currently there is no such activity in the Solent area. Mitigation measures are secured for the duration over which the development is causing the effects, for the Winchester plan area this is 125 years.”

5.62 There are several strategic nutrient mitigation schemes available in the plan area, to which developers could contribute [\[See reference 58\]](#) and a third party catchment market is in development for the Solent [\[See reference 59\]](#). The capacity of the existing strategic mitigation schemes and the proportion of the Local Plan’s development that they offset is set out in Table 5.1.

Table 5.3: Strategic mitigation available for Local Plan development

Catchment	Mitigation available	Capacity (Kg/TN/yr)	Local Plan need (Kg/TN/yr)
East Hampshire (nitrogen)	Whitewool (wetlands) Warnford Park (arable reversion) Knowle (interceptor wetlands)	4,208	2030.83 (met by available capacity)
Test & Itchen (nitrogen)	Eastleigh Borough Council (wetlands) Roke Manor Farm / Awbridge Danes (arable reversion) The Grange Estate, Abbotstone (arable reversion) Hinton Ampner (land management) Blackbarn Farm (land management)	3,114.87	6,436.35 (shortfall in capacity of 3,321.48)
Test & Itchen (phosphorus)	Eastleigh Borough Council (wetlands) - available to sites using Chickenhall WTW	115.91	25.17 to Chickenhall WTW (met by available capacity) 355.8 to other WTWs (shortfall)

5.63 There is therefore sufficient capacity within the strategic mitigation schemes for the Local Plan development that will come forward within the East Hampshire catchment (including in-combination with other development in the catchment). This applies to the following site allocations: BW1, BW2, BW3, BW4, D1, KN1, SW1, SH1, SH2, SH3, WC1, WK1, WK5 and WK6; and other windfall development that would use the Bishops Waltham, Budds Farm, Peel Common or Wickham WTWs, or otherwise discharge into the East Hampshire catchment.

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5.64 Capacity within the Test and Itchen mitigation schemes does not fully meet the required Local Plan demand for nitrogen or phosphorus. About half of the nitrogen demand is met, but only a small proportion of the phosphorus demand. Work to identify additional mitigation is in progress and the topic paper states that “Winchester District Council are in line to receive a portion of the funding to deliver upgrades to two Council owned projects. This includes upgrades to Council owned waste water treatment works to Package Treatment Plants.” and that “Further information will be provided in due course in the Natural England and Winchester City Council Statement of Common Ground.” (see ‘next steps’ in Chapter 6).

5.65 The residual uncertainty around the potential for strategic mitigation applies to the following site allocations within the Test and Itchen catchments: HU1, W1, W2, W3, W4, W7, W8, W9, W11, KW1, KW2, SW01, SU01, NA2, CC1, CC2, CC3, CC4, OT01; and other windfall development that would use the Grafton, Harestock, Morestead, New Alresford, or Chickenhall WTWs, or otherwise discharge into the Test/Itchen catchment. The lack of strategic mitigation for some of the site allocations does not mean that there will be adverse effects on integrity of Habitats Sites, as Policy NE16 ensures that development would need to demonstrate that it was nutrient neutral (for example by proposing on-site wastewater treatment) before permission was granted; although this may prevent some development from coming forward.

5.66 Policy NE16 is sufficient to avoid adverse effects on the integrity of the River Itchen SAC and Solent Habitats Sites (Solent & Southampton Water SPA/Ramsar, Solent Maritime SAC and Solent & Dorset Coast SPA) due to wastewater treatment, by ensuring the new development would be nutrient neutral.

5.67 At the time of writing, additional capacity within Winchester Council’s strategic mitigation is being agreed through a Statements of Common Ground with Natural England and Southern Water (see Chapter 6); once agreed, this will ensure that new development can contribute to off-site strategic mitigation

measures, rather than relying on some developments to achieve nutrient neutrality on-site.

Recreation pressure

5.68 The HRA Screening identified likely significant effects arising from residential development within 5.6km of Solent & Southampton Water SPA/Ramsar (and its FLL), Chichester & Langstone Harbours SPA/Ramsar, Portsmouth Harbour SPA/Ramsar and Solent & Dorset Coast SPA; and large residential developments within 15km of the New Forest SAC/SPA/Ramsar. This applies to the following site allocations (plus any development that could occur outside of these), that are within the zones of influence:

- Solent & Southampton Water SPA/Ramsar: H16, H18, KN1, SH2, SH3, WC1 (510 homes and at least 30 traveller pitches, within 5.6km ZOI).
- Chichester & Langstone Harbours SPA/Ramsar: SH1 (250 homes within 5.6km ZOI).
- Portsmouth Harbour SPA: H18, KN1, SH1, SH3 (480 homes and 30 traveller pitches, within 5.6km ZOI). Note that a small part of D1 Denmead Neighbourhood Plan Area and its 100 homes also falls within the ZOI.
- Solent & Dorset Coast SPA: as for all three of the above (1,240 homes and at least 30 traveller pitches, within 5.6km ZOI; plus any from D1 Denmead Neighbourhood Plan Area).
- New Forest SAC/SPA/Ramsar: HU1, KN1, SH2 (400 homes in large developments (>150 homes / 5ha), within 15km ZOI. Note that HU1 is only allocated for 20 homes, but the Neighbourhood Plan area is >5ha so has been included as a precaution.

Solent Habitats Sites

5.69 To mitigate the effects of residential development (including second homes, holiday accommodation and student accommodation) within the ZOI of the coastal Habitats Sites in the Solent (Solent & Southampton Water SPA/Ramsar; Chichester & Langstone Harbours SPA/Ramsar; Portsmouth Harbour SPA; and Solent & Dorset Coast SPA), the Solent Recreation Mitigation Strategy (Bird Aware Solent) is in place. This requires developer contributions from residential developments within 5.6km of the Habitats Sites, which fund access management and monitoring at the coastal sites. The mitigation strategy, prepared in 2017, is intended to mitigate c.63,000 new dwellings planned between 2016 and 2034. This was based on a spatial position statement [See reference 60] that included an objectively assessed housing need for Winchester district (within the ZOI) of 3,375, to 2034. The Local Plan provides for 15,465 homes over the Plan period to 2040, of which 1,240 would be within the ZOI of the Solent sites. However, any new homes coming forward after the end of the strategy in 2034 will fall outside the remit of the current strategy.

5.70 Natural England has advised (see Appendix C) that “This is likely to lead to a shortfall of mitigation during the Plan period. Natural England is considering this issue and engaging with the Bird Aware project board and PfSH [Partnership for South Hampshire, which includes Winchester Council] Stakeholders on the way forward.” And “Any identified shortfall in the latter stages of the Plan period is likely to require further mitigation. We will continue to engage with Winchester City Council on this issue.” Discussions are ongoing to agree the approach to mitigation when the current strategy ends; and it is expected that the strategy will be extended to 2050.

5.71 In addition to the overarching protection of Habitats Sites, Policy NE5 Biodiversity makes specific provision for recreation pressure, accommodating both the current strategy and potential changes to it, stating:

Policy NE5: Biodiversity

The Local Planning Authority will require [development to]:

- v. Mitigates the effects of recreational pressure on Habitats Sites in line with Bird Aware Solent and the New Forest Recreational Management Strategy where appropriate, or an agreed approach with Natural England;

5.72 The supporting text states:

The Council is part of the Solent Recreation Mitigation Partnership (SRMP), also known as Bird Aware Solent. The Council has worked with the Partnership to form a Mitigation Strategy to counteract impacts associated with recreation pressure from residential development within 5.6km (the 'zone of influence') of Habitats Sites in the Solent (Solent & Southampton Water SPA/Ramsar; Chichester & Langstone Harbours SPA/Ramsar; Portsmouth Harbour SPA; and Solent & Dorset Coast SPA). Development proposals will need to demonstrate that negative effects can be mitigated by contributing towards the strategic mitigation measures put in place by Bird Aware Solent. Development will be assessed on a case-by-case basis.

It is anticipated that the majority of schemes will mitigate their effects by paying a financial contribution which is currently based on the number of net additional dwellings, and the number of bedrooms per dwelling . The level of contribution required is reviewed each February in line with the Retail price Index (RPI).

Bird Aware Solent are in the process of updating the Strategy to increase the period of coverage. This will ensure that the requirements of the Conservation of Habitats and Species Regulations 2017 are met past 2034.

5.73 Within the Local Plan, in addition to the general protection for Habitats Sites set out in Policy NE1, the following policies contribute to mitigation for recreation pressure by encouraging developments to provide green infrastructure with new development, that could reduce visits to the more sensitive Habitats Sites:

- Policy D5: Masterplans: requires ‘significant development on sites occupied by major landowners/users’ to incorporate a green infrastructure strategy, providing an integrated network of green spaces, taking advantage of opportunities for off-site links to the countryside, South Downs National Park where applicable and wider green network, and where necessary providing alternative recreational space.
- Policy NE3: Open space, sport and recreation: sets out standards for the provision of new open space with development.
- Policy NE4: Green and blue infrastructure: sets out principles for new green infrastructure with development.
- Policy NE11: Open space provision for new developments: sets standards for the provision of new open space, which may help to reduce recreation pressure effects.

5.74 While these are good practice and will contribute to the general requirement for green infrastructure / open space within the district, the principal mitigation is the Bird Aware Solent strategic mitigation.

5.75 With the strategic mitigation and safeguards within Local Plan policies, adverse effects on integrity of Solent & Southampton Water SPA/Ramsar (and its FLL), Chichester & Langstone Harbours SPA/Ramsar, Portsmouth Harbour

SPA/Ramsar and Solent & Dorset Coast SPA due to recreation pressure will be avoided.

New Forest Habitats Sites

5.76 A mitigation strategy [See reference 61] has been developed for the New Forest sites (New Forest SAC/SPA/Ramsar). This is based principally on the use of developer contributions from residential development within the ZOI to fund strategic access mitigation and monitoring within the Habitats Sites. However, the 13.8km ZOI used to identify where developer contributions are required does not apply to Winchester district. The report on the application of the ZOI (see reference 45) clarifies the circumstances in which large developments within Winchester may require mitigation (note that Natural England have suggested a more precautionary definition of 'large development' as EIA development, i.e. residential developments of 150 homes; see paragraph 4.72):

“We recommend that large developments just outside the zone of influence should be subject to HRA and that mitigation may be required. This could be either through the provision of very high quality local greenspace or a reduced per dwelling contribution to the strategic mitigation scheme. The need for mitigation should be assessed on a case-by-case basis and should potentially be relevant for any site of around 200 or more dwellings, particularly those within 15km of the SAC/SPA/Ramsar boundary.”

5.77 As with the Solent sites, Local Plan policies D5, NE1, NE3, NE4 and NE11 provide general protection for Habitats Sites and provision for green infrastructure / open space in new development. However, Policy NE5 provides the main mitigation for recreation pressure at the New Forest sites:

[development must:]

- v. Mitigate the effects of recreational pressure on Habitats Sites in line with Bird Aware Solent and the New Forest Recreational Management Strategy where appropriate, or an agreed approach with Natural England;

5.78 And its supporting text states:

In the plan area, the New Forest Strategic Access Management and Monitoring Strategy 2023 is relevant only to large residential or tourism development within 15km of the New Forest SAC/SPA/Ramsar. If these developments require Environmental Impact Assessment, then they must also carry out a project-level HRA to assess the impacts of new residential / tourism development on the New Forest, and if necessary identify mitigation.

5.79 With the wording of Policy NE5, adverse effects on integrity of the New Forest SAC/SPA/Ramsar due to recreation pressure will be avoided.

Chapter 6

Conclusions and next steps

6.1 The HRA Screening (**Chapter 4**) was unable to rule out likely significant effects in relation to:

- Physical damage and loss of habitat;
- Non-physical disturbance;
- Air pollution;
- Changes in water quantity or quality; or
- Recreation pressure.

6.2 The Appropriate Assessment in **Chapter 5** considered whether the above likely significant effects will, in light of mitigation and avoidance measures, result in adverse effects on integrity of the Habitats Sites either alone or in combination with other plans or projects.

6.3 The Appropriate Assessment concluded that safeguards within Local Plan (primarily policies NE1, NE5, NE16, NE17 and W5; and to a lesser extent CN4, D2, D5, D7, D8, NE3, NE4, NE8, NE11 and NE11) are sufficient to rule out adverse effects on the integrity of Habitats Sites or their FLL relating to the following (alone or in combination with other plans and projects):

- Physical damage and loss of habitat;
- Non-physical disturbance;
- Air pollution;
- Changes in water quality due to run-off from development;

Chapter 6 Conclusions and next steps

- Changes in water quantity or quality relating to waste water and nitrogen / phosphorus (although the details of strategic mitigation are still to be concluded; see below); and
- Recreation pressure.

6.4 For changes in water quantity and quality relating to abstraction and impacts on the River Itchen SAC, adverse effects on integrity are not anticipated; however this will be confirmed via the Statement of Common Ground (SOCG) with Southern Water, as set out below.

SOCG with Natural England

6.5 Although the Local Plan policies are sufficient to avoid adverse effects on the integrity of Habitats Sites due to nutrients from wastewater, some of the work on strategic mitigation is still underway, although this is being resolved through a SOCG with Natural England. Capacity within the Test and Itchen mitigation schemes does not fully meet the required Local Plan demand for nitrogen or phosphorus. About half of the nitrogen demand is met, but only a small proportion of the phosphorus demand. Work to identify additional mitigation is in progress and the nutrient topic paper states that “Winchester District Council are in line to receive a portion of the funding to deliver upgrades to two Council owned projects. This includes upgrades to Council owned wastewater treatment works to Package Treatment Plants.” and that “Further information will be provided in due course in the Natural England and Winchester City Council Statement of Common Ground.”

6.6 The agreement of the remainder of the strategic mitigation will mean that no developments will need to provide their own mitigation, and can rely on the strategic mitigation.

Chapter 6 Conclusions and next steps

6.7 The agreements with Natural England will be recorded (e.g. via the SOCG and/or future iterations of the HRA) and the HRA will be updated to reflect the agreements as necessary.

SOCG with Southern Water

6.8 The SOCG with Southern Water will confirm that development allocated in the Local Plan has been planned for in the 2024 WRMP and confirm agreements on water supply and wastewater infrastructure, such as ensuring compatibility between Southern Water’s proposed infrastructure upgrades and Local Plan development. Once the SOCG has been finalised, this will confirm that the measures being relied upon to meet this demand are feasible and certain, and enable the HRA to reach the conclusion of ‘no adverse effects on integrity’ for the impacts of abstraction on the River Itchen SAC. Note that there are no adverse effects on integrity associated with wastewater treatment, but the SOCG will confirm the strategic mitigation (as for ‘SOCG with Natural England’, above).

6.9 These agreements will be documented, in the SOCG and subsequent iterations of the HRA.

LUC

July 2024

Appendix A

Attributes of Habitats Sites assessed

Appendix A Attributes of Habitats Sites assessed

Table A.1: Summary of site sensitivities

Habitats Site	Non-physical disturbance	Recreation pressure	Water quality / quantity	Air pollution	Relevant functionally linked land?
Butser Hill SAC		Yes		Yes	
Chichester & Langstone Harbours SPA / Ramsar	Yes	Yes	Yes	Yes	Yes – outside Plan area (waterbirds)
East Hampshire Hangers SAC		Yes		Yes	
Emer Bog SAC				Yes	
Kingley Vale SAC				Yes	
Mottisfont Bats SAC	Yes	Yes		Yes (supporting habitat)	Yes – within and outside Plan area (Barbastelle bats)
New Forest SAC / SPA / Ramsar	Yes	Yes		Yes	Yes – outside Plan area (great crested newts and stag beetle)

Appendix A Attributes of Habitats Sites assessed

Habitats Site	Non-physical disturbance	Recreation pressure	Water quality / quantity	Air pollution	Relevant functionally linked land?
Porton Down SAC	Yes			Yes	Yes – outside Plan area (stone curlew)
Portsmouth Harbour SPA / Ramsar	Yes	Yes	Yes	Yes	Yes – outside Plan area (waterbirds)
River Itchen SAC	Yes		Yes	Yes	Yes – within Plan area (otter) – outside Plan area (Atlantic salmon)
Rook Cliff SAC				Yes	
Salisbury Plain SAC				Yes	
Shortheath Common SAC		Yes		Yes	
Solent & Dorset Coast SPA	Yes	Yes	Yes	Yes	Yes – outside Plan area (waterbirds)
Solent & Isle of Wight Lagoons SAC		Yes	Yes	Yes	
Solent & Southampton Water SPA / Ramsar	Yes	Yes	Yes	Yes	Yes – outside Plan area (waterbirds)

Appendix A Attributes of Habitats Sites assessed

Habitats Site	Non-physical disturbance	Recreation pressure	Water quality / quantity	Air pollution	Relevant functionally linked land?
Solent Maritime SAC			Yes	Yes	
Wealden Heaths Phase 2 SPA	Yes	Yes		Yes	No – supporting habitats are within site boundaries
Woolmer Forest SAC			Yes	Yes	

Butser Hill SAC

A.1 Butser Hill SAC - is an extensive area of semi-natural dry grassland and dense yew woodlands, with smaller elements of chalk heath, deciduous woodland and mixed scrub. It is located within the South Downs National Park, in the east of Hampshire. Butser is the highest point in the National Park and is situated on the chalk which also feeds the Oxenbourne tributary of the River Meon. The chalk grassland component of the site is primarily CG2 Festuca ovina – Avenula pratense grassland, grazed by sheep and rabbits. The topography of the site is varied, with a wide range of slope gradients and aspects, which in turn generate conditions for high diversity of both vascular and lower flora. The lichen flora associated with chalk grassland is considered the richest in England, whilst a distinctive association of liverworts and mosses occurs on the north-facing slopes.

Appendix A Attributes of Habitats Sites assessed

Table A.2: Attributes of Butser Hill SAC

Site Name (Area, ha)	Qualifying features and conservation objectives	Key vulnerabilities	Non-qualifying habitats and species upon which the qualifying habitats and/or species depend
<p>Butser Hill SAC (237.36ha)</p>	<p><i>Qualifying features:</i></p> <ul style="list-style-type: none"> ■ H4030 European dry heaths ■ H6210 Semi-natural dry grasslands and scrubland facies on calcareous substrates (<i>Festuco-Brometalia</i>) (* important orchid sites) ■ 91J0 <i>Taxus baccata</i> woods of the British Isles <p><i>Conservation objectives:</i></p> <ul style="list-style-type: none"> ■ Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring: 	<p><u>Inappropriate scrub control</u></p> <p>In some localised areas, chalk grassland is suffering from significant encroachment by bramble, gorse and other scrub, and there are indications that its extent is declining. Shading effects from expansion of woodland and scrub will also cause a reduction in diversity in the sward.</p> <p><u>Under grazing</u></p> <p>Condition assessment of some areas suggested that there were distinct areas where the sward height was tussocky and above target. Also, higher than target levels of leaf litter were reported. This suggests that grazing is uneven, or limited, across the site.</p> <p>The importance of rabbits as a grazing animal is noted, but the population has declined markedly due to disease outbreaks. Uneven grazing carries the risk of the sward becoming too tall and grass-dominated, shading out the forbs that are characteristic of the chalk grassland sward.</p>	<p>Natural England's Conservation Objectives: Supplementary Advice for this site [See reference 62] identify the following dependencies:</p> <p><i>Festuco-Brometalia</i> grasslands require thin, well-drained, lime-rich soils associated with chalk and limestone. Most of these calcareous grasslands are maintained by grazing (to control scrub). Yew woodland requires shallow, dry soils usually on chalk or limestone slopes, but in a few areas stands on more mesotrophic soils are found. These habitats are associated with a community of plant species, which need to be maintained as components of the qualifying habitats.</p> <p>Supporting offsite habitat is relevant to this site: Additional areas of calcareous grassland and other species rich grasslands occur near to the SAC. These need to be maintained to support wider populations of the species that</p>

Appendix A Attributes of Habitats Sites assessed

Site Name (Area, ha)	Qualifying features and conservation objectives	Key vulnerabilities	Non-qualifying habitats and species upon which the qualifying habitats and/or species depend
	<ul style="list-style-type: none"> ■ The extent and distribution of qualifying natural habitats; ■ The structure and function (including typical species) of qualifying natural habitats; and ■ The supporting processes on which qualifying natural habitats rely. 	<p><u>Air Pollution: risk of atmospheric nitrogen deposition</u></p> <p>Nitrogen deposition exceeds site relevant critical loads for the <i>Taxus baccata</i> woodlands and is approaching the upper critical load in the chalk grassland.</p> <p>Nitrogen enrichment impacts for chalk grassland can include: increase in tall grasses; decline in diversity; increased mineralisation; N leaching and surface acidification.</p> <p>Nitrogen enrichment impacts for <i>Taxus baccata</i> woodland include: changes in soil processes; nutrient imbalance; altered composition mycorrhiza and ground vegetation.</p> <p>Overall, this creates conditions less favourable to the characteristic vegetation of the SAC features. However, as the sensitive features (<i>Taxus baccata</i> woodlands) are considered to be in favourable condition this requires further investigation to determine the significance level of the threat.</p>	<p>characterise the SAC and maintain the resilience of the habitat.</p>

Appendix A Attributes of Habitats Sites assessed

Chichester and Langstone Harbour SPA/Ramsar

A.2 Chichester and Langstone Harbours SPA/ Ramsar - Chichester and Langstone Harbours Special Protection Area (SPA) is located on the south coast of England in Hampshire and West Sussex. The large, sheltered estuarine basins comprise of extensive sandflats and mudflats exposed at low tide. The two harbours are joined by a stretch of water that separates Hayling Island from the mainland. Tidal channels drain the basin and penetrate far inland. The mudflats are rich in invertebrates and also support extensive beds of algae, especially, eelgrasses (*Zostera* spp.) and *Enteromorpha* species.

Table A.3: Attributes of Chichester and Langstone Harbour SPA/Ramsar

Site Name (Area, ha)	Qualifying features and conservation objectives	Key vulnerabilities	Non-qualifying habitats and species upon which the qualifying habitats and/or species depend
Chichester and Langstone Harbours SPA (5,810.95 ha)	<p><i>Qualifying features:</i></p> <ul style="list-style-type: none"> ■ A157 Bar-tailed godwit <i>Limosa lapponica</i>, Non-breeding ■ A193 Common tern <i>Sterna hirundo</i>, Breeding ■ A160 Curlew <i>Numenius arquata</i>, Non-breeding 	<p><u>Public Access/Disturbance</u></p> <p>Recreational activities can affect annual vegetation of drift lines (H1210) and the vegetation of stony banks (H1220).</p> <p><u>Coastal squeeze</u></p> <p>Habitats are being lost as they are squeezed between rising sea levels and hard coastal defences that are maintained. There is a direct impact due to loss of the SAC habitats such as saltmarsh. In some areas rising sea levels will</p>	<p>In general, the qualifying bird species of the SPA rely on:</p> <ul style="list-style-type: none"> ■ The site's ecosystem and hydrology as a whole (see list of habitats below). ■ Maintenance of populations of species that they feed on (see list of diets below).

Appendix A Attributes of Habitats Sites assessed

Site Name (Area, ha)	Qualifying features and conservation objectives	Key vulnerabilities	Non-qualifying habitats and species upon which the qualifying habitats and/or species depend
	<ul style="list-style-type: none"> ■ A675 Dark-bellied brent goose <i>Branta bernicla bernicla</i>, Non-breeding ■ A672 Dunlin <i>Calidris alpina alpina</i>, Non-breeding ■ A141 Grey plover <i>Pluvialis squatarola</i>, Non-breeding ■ A195 Little tern <i>Sternula albifrons</i>, Breeding ■ A054 Pintail <i>Anas acuta</i>, Non-breeding ■ A069 Red-breasted merganser <i>Mergus serrator</i>, Non-breeding <p><i>Conservation objectives:</i></p> <ul style="list-style-type: none"> ■ Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the aims of the Wild Birds Directive, by maintaining or restoring; 	<p>result in coastal grasslands being lost to more saline grasslands. The habitats that are lost could be created elsewhere, but there is difficulty in finding suitable areas. The neutral grassland habitats will take a long time to create as mitigation, but intertidal habitat can be created relatively quickly. Current compensation provides required habitat for Epoch 1 of the Shoreline Management Plan 2, further investigation is required for Epoch 2 and 3. This project will utilise outputs from Shoreline Management Plans, the Environment Agency's Regional Habitat Creation Project and the New Forest District Council/Channel Coastal Observatory's Solent Dynamic Coast Project.</p> <p><u>Fisheries: Commercial marine and estuarine</u></p> <p>Towed gear, hand gathering of shellfish, bait digging and aquaculture are the main fishery activities in this site.</p> <p><u>Water pollution</u></p> <p>Water pollution affects a range of habitats at the site through eutrophication and toxicity. Sources include both point source discharges (including flood alleviation / storm discharges)</p>	<ul style="list-style-type: none"> ■ Off-site habitat, which provide foraging habitat for these species. <p>Open landscape with unobstructed line of sight within nesting, foraging or roosting habitat.</p> <p>There is no Natural England Conservation Objectives: Supplementary Advice for this site. We will further consider the dependencies of the site's qualifying features in the next iteration of the HRA.</p>

Appendix A Attributes of Habitats Sites assessed

Site Name (Area, ha)	Qualifying features and conservation objectives	Key vulnerabilities	Non-qualifying habitats and species upon which the qualifying habitats and/or species depend
	<ul style="list-style-type: none"> ■ The extent and distribution of the habitats of the qualifying features ■ The structure and function of the habitats of the qualifying features ■ The supporting processes on which the habitats of the qualifying features rely ■ The population of each of the qualifying features, and, <p>The distribution of the qualifying features within the site.</p>	<p>and diffuse water pollution from agriculture / road runoff, as well as historic contamination of marine sediments, primarily from copper and Tributyltin (TBT). A position statement from the Environment Agency and Natural England on water quality in the Solent and housing growth confirms the need to control nitrogen inputs to the Solent from development growth. Environment Agency flood event discharge consents allow untreated waters to be discharged which end up in the SAC and are likely to have a negative impact. There is a threat of spillage from oil transportation and transfer and by the usage by ships and pilotage.</p> <p><u>Climate change</u></p> <p>Climate change has impacts upon coastal species, in that gull and tern colonies are more frequently washed out with raising sea levels when storm surges cause flooding to habitats.</p> <p><u>Changes in species distributions</u></p> <p>Areas of saltmarsh are eroding and decreasing.</p> <p><u>Change to site conditions</u></p>	

Appendix A Attributes of Habitats Sites assessed

Site Name (Area, ha)	Qualifying features and conservation objectives	Key vulnerabilities	Non-qualifying habitats and species upon which the qualifying habitats and/or species depend
		<p>There is an increasing loss of saltmarsh in much of the Solent for reasons unknown, and this needs to be investigated.</p> <p><u>Invasive species</u></p> <p>The highest risk pathways through which marine INNS are introduced and then spread have been identified as: commercial shipping (through release of ballast water, and biofouling on hulls); recreational boating (through biofouling on hulls); aquaculture (through contamination of imported or moved stock - or escaped stock in the case of the pacific oyster), and natural dispersal.</p> <p><u>Biological Resource Use</u></p> <p>Gull egg collecting occurs in some places, and wildfowling occurs in several places. These activities are likely to be disturbing to breeding and wintering birds even though they are licenced/consented at the moment.</p> <p><u>Change in land management</u></p> <p>Changes to land management are likely to occur in areas where tidal flaps/sluices are altered and this results in changes to water levels or salinity of that land. Some sluices are failing, which may also result in changes to</p>	

Appendix A Attributes of Habitats Sites assessed

Site Name (Area, ha)	Qualifying features and conservation objectives	Key vulnerabilities	Non-qualifying habitats and species upon which the qualifying habitats and/or species depend
		<p>water levels or salinity of land. Some ditches and drains are neglected and this can cause difficulties in land management, resulting in changes.</p> <p><u>Inappropriate pest control</u></p> <p>Predator control is decreasing, resulting in increased predation by foxes etc. and this is the likely cause of decrease in successful breeding of gulls and terns.</p> <p><u>Air Pollution: Impact of atmospheric nitrogen deposition</u></p> <p>Nitrogen deposition exceeds site relevant critical loads. Locally observed effects are unknown.</p> <p><u>Direct impact from 3rd party</u></p> <p>Off-roading is causing damage to some areas of grassland. Private sea defences are causing disruption to the natural movement processes of natural materials along the coast. House boats are unlicensed and have the potential to cause damage to intertidal habitats. Fly grazing is causing issues affecting large areas of Chichester Harbour.</p> <p><u>Other</u></p>	

Appendix A Attributes of Habitats Sites assessed

Site Name (Area, ha)	Qualifying features and conservation objectives	Key vulnerabilities	Non-qualifying habitats and species upon which the qualifying habitats and/or species depend
		SAC boundary may not cover the extent of all Annex 1 and Annex 2 features and/or supporting habitats.	
Chichester and Langstone Harbours Ramsar (5,810.03 ha)	<p><i>Qualifying features:</i></p> <p><u>Ramsar Criterion 1</u></p> <p>Two large estuarine basins linked by the channel which divides Hayling Island from the main Hampshire coastline. The site includes intertidal mudflats, saltmarsh, sand and shingle spits and sand dunes.</p> <p><u>Ramsar Criterion 5</u></p> <p>Assemblages of international importance:</p> <p>Species with peak counts in winter:</p> <ul style="list-style-type: none"> ■ 76480 waterfowl (5-year peak mean 1998/99-2002/2003) <p><u>Ramsar criterion 6</u></p>	<p><u>Erosion</u></p> <p>Coastal Defence Strategies, regulation of private coastal defences, shoreline management plans are in place or are being developed. Some larger-scale saltmarsh re-creation projects, beneficial usage of maintenance dredgings and managed realignment scheme to offset losses to coastal squeeze have been proposed.</p> <p><u>Eutrophication</u></p> <p>No information available.</p> <p><u>Pollution – domestic sewage</u></p> <p>No information available.</p>	<p>In general, the qualifying bird species of the Ramsar site rely on:</p> <ul style="list-style-type: none"> ■ The site's ecosystem and hydrology as a whole (see list of habitats below). ■ Maintenance of populations of species that they feed on (see list of diets below). ■ Off-site habitat, which provide foraging habitat for these species. <p>Open landscape with unobstructed line of sight within nesting, foraging or roosting habitat.</p>

Appendix A Attributes of Habitats Sites assessed

Site Name (Area, ha)	Qualifying features and conservation objectives	Key vulnerabilities	Non-qualifying habitats and species upon which the qualifying habitats and/or species depend
	<p>Species/populations occurring at levels of international importance.</p> <p>Qualifying Species/ populations (as identified at designation):</p> <p>Species with peak counts in spring/autumn:</p> <ul style="list-style-type: none"> ■ Ringed plover <i>Charadrius hiaticula</i>, Europe/Northwest Africa ■ Black-tailed godwit <i>Limosa limosa islandica</i>, Iceland/W Europe ■ Common redshank <i>Tringa totanus totanus</i>, <p>Species with peak counts in winter:</p> <ul style="list-style-type: none"> ■ Dark-bellied brent goose, <i>Branta bernicla bernicla</i> ■ Common shelduck <i>Tadorna tadorna</i>, NW Europe 		

Appendix A Attributes of Habitats Sites assessed

Site Name (Area, ha)	Qualifying features and conservation objectives	Key vulnerabilities	Non-qualifying habitats and species upon which the qualifying habitats and/or species depend
	<ul style="list-style-type: none"> ■ Grey plover <i>Pluvialis squatarola</i>, E Atlantic/W Africa -wintering ■ Dunlin <i>Calidris alpina alpina</i>, W Siberia/W Europe <p>Species/populations identified subsequent to designation for possible future consideration under criterion 6: Species regularly supported during the breeding season:</p> <p>Little tern <i>Sterna albifrons albifrons</i>, W Europe</p>		

East Hampshire Hangers SAC

A.3 East Hampshire Hangers SAC - The East Hampshire Hangers is designated primarily for its examples of beech forests and its mixed woodland associated with base-rich slopes in addition to chalk grassland of importance to orchids, yew forests and its population of Early gentian.

Appendix A Attributes of Habitats Sites assessed

The beech forests are extremely rich in terms of vascular plants and include areas with old pollards on former wood-pasture as well as high forest. The sloped mixed woodland is unusual in southern England and notably contains areas of small-leaved lime. The moss flora is richer than on the chalk examples and includes several species that are rare in the lowlands. The Wealden Edge Hangers component of the site contains stands of yew *Taxus baccata* woodland.

Table A.4: Attributes of East Hampshire Hangers SAC

Site Name (Area, ha)	Qualifying features and conservation objectives	Key vulnerabilities	Non-qualifying habitats and species upon which the qualifying habitats and/or species depend
East Hampshire Hangers SAC (561.69 ha)	<p><i>Qualifying features:</i></p> <ul style="list-style-type: none"> ■ H9130 <i>Asperulo-Fagetum</i> beech forests ■ H9180 <i>Tilio-Acerion</i> forests of slopes, screes and ravines * Priority feature ■ H6210 Semi-natural dry grasslands and scrubland facies on calcareous substrates (<i>Festuco-Brometalia</i>) (* important orchid sites) 	<p><u>Air Pollution: risk of atmospheric nitrogen deposition</u></p> <p>Nitrogen deposition exceeds the site-relevant critical load for ecosystem protection and hence there is a risk of harmful effects, but the sensitive features are currently generally considered to be in favourable condition on the site (those few that are unfavourable are unfavourable for specific reasons unrelated to nitrogen). This requires further investigation.</p> <p><u>Invasive species</u></p> <p>A non-native hybrid ivy is smothering out the ground flora and spreading in one of the hangers.</p>	<p>Natural England's Conservation Objectives: Supplementary Advice for this site [See reference 63] identify the following dependencies:</p> <p><i>Festuco-Brometalia</i> grasslands require thin, well-drained, lime-rich soils associated with chalk and limestone. Most of these calcareous grasslands are maintained by grazing (to control scrub). <i>Asperulo-Fagetum</i> beech forests require circumneutral to calcareous soils. Each community has a different associated suite of species which change according to slope and soil type. <i>Tilio-Acerion</i> ravine forests are woods of ash, wych elm and lime. The habitat type typically occurs on nutrient-rich</p>

Appendix A Attributes of Habitats Sites assessed

Site Name (Area, ha)	Qualifying features and conservation objectives	Key vulnerabilities	Non-qualifying habitats and species upon which the qualifying habitats and/or species depend
	<ul style="list-style-type: none"> ■ H91J0 <i>Taxus baccata</i> woods of the British Isles * Priority feature <p><i>Conservation objectives:</i></p> <p>Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring:</p> <ul style="list-style-type: none"> ■ The extent and distribution of qualifying natural habitats and habitats of qualifying species; ■ The structure and function (including typical species) of qualifying natural habitats; ■ The structure and function of the habitats of qualifying species; ■ The supporting processes on which qualifying natural 	<p><u>Forestry and woodland management</u></p> <p>A small portion of the SAC is in unfavourable condition due to lack of understorey. Attempts at providing regeneration have been poorly implemented and in addition parts of this area are thick with ruderal vegetation.</p>	<p>soils that often accumulate in the shady micro-climates towards the bases of slopes and ravines. These habitats are all associated with a community of plant species, which need to be maintained as components of the qualifying habitats. Early gentian requires bare ground or in thin turf that is kept open by a combination of rabbit or sheep-grazing and trampling by livestock on thin droughted soils.</p> <p>Supporting offsite habitat is relevant to this site: Additional areas of calcareous grassland and other species rich grasslands occur near to the SAC. These need to be maintained to support wider populations of the species that characterise the SAC and maintain the resilience of the habitat.</p>

Appendix A Attributes of Habitats Sites assessed

Site Name (Area, ha)	Qualifying features and conservation objectives	Key vulnerabilities	Non-qualifying habitats and species upon which the qualifying habitats and/or species depend
	habitats and the habitats of qualifying species rely; <ul style="list-style-type: none"> ■ The populations of qualifying species; and The distribution of qualifying species within the site.		

Emer Bog SAC

A.4 Emer Bog SAC - The site comprises an extensive valley bog together with associated damp acidic grassland, heathland and developing woodland over Bracklesham Beds in the Hampshire Basin. Emer Bog SAC is part of the South Hampshire Lowlands National Character Area (NCA 128).

A.5 Emer Bog is an excellent example of a valley bog with a rich flora and fauna which includes most typical bog species. The main elements of the bog vegetation include a mixed association of sedges, especially white sedge *Carex curta*, bottle sedge *C. rostrata* and star sedge *C. echinata*, with notable quantities of marsh cinquefoil *Comarum palustre* and bogbean *Menyanthes trifoliata*, together with marsh violet *Viola palustris* and southern marsh-orchid *Dactylorhiza praetermissa*. The bog grades downstream into mature alder carr and upstream into heathland.

Appendix A Attributes of Habitats Sites assessed

Table A.5: Attributes of Emer Bog SAC

Site Name (Area, ha)	Qualifying features and conservation objectives	Key vulnerabilities	Non-qualifying habitats and species upon which the qualifying habitats and/or species depend
Emer Bog SAC (36.76 ha)	<p><i>Qualifying features:</i></p> <ul style="list-style-type: none"> ■ H7140 Transition mires and quaking bogs <p><i>Conservation objectives:</i></p> <p>Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring:</p> <ul style="list-style-type: none"> ■ The extent and distribution of the qualifying natural habitat; ■ The structure and function (including typical species) of the qualifying natural habitat; and 	<p><u>Public Access/Disturbance</u></p> <p>The adoption of the site for informal recreation compounds the difficulties in managing the site, particularly through grazing.</p> <p><u>Hydrological changes</u></p> <p>There has been a reduction in the area of Sphagnum-rich vegetation and it is thought that this is due to substantial nutrient enrichment encouraging the growth of Typha. Although the cause of this is uncertain, a more detailed understanding of site hydrology is likely to help clarify reasons.</p> <p><u>Air Pollution: impact of atmospheric nitrogen deposition</u></p> <p>Nitrogen deposition exceeds site relevant critical loads. With respect to transition mire excess nitrogen may negatively alter the vegetation community by detrimentally affecting bryophytes and increasing the abundance of sedges and vascular plants.</p>	<p>Natural England's Conservation Objectives: Supplementary Advice for this site [See reference 64] identify the following dependencies:</p> <p>Transition mires and quaking bogs can occur in a variety of situations, related to different geomorphological processes: in flood plain mires, valley bogs, basin mires and the lagg zone of raised bogs, and as regeneration surfaces within mires that have been cut-over for peat.</p> <p>The overall vulnerability of this SAC to climate change has been assessed by Natural England (2015) as being high, taking into account the sensitivity, fragmentation, topography and management of its habitats.</p> <p>This habitat requires ongoing cutting or grazing maintain its open character. Additionally, other habitats along with land outside the site boundary will need to be managed in such a way as to reverse the current negative impacts to</p>

Appendix A Attributes of Habitats Sites assessed

Site Name (Area, ha)	Qualifying features and conservation objectives	Key vulnerabilities	Non-qualifying habitats and species upon which the qualifying habitats and/or species depend
	<ul style="list-style-type: none"> ■ The supporting processes on which the qualifying natural habitat rely. 		the water chemistry and hydrology of the mire and prevent further issues occurring. Surrounding habitats should also be managed to support the wider populations of the flora and fauna of the mire

Kingley Vale SAC

A.6 Kingley Vale SAC is one of the sites representing yew woods on chalk, in the central southern part of its UK range. It has been selected primarily because of its size, as it is the largest area of yew woodland in Britain. In addition to the woodland, four nationally uncommon habitats are represented at the site: chalk grassland; chalk heath; juniper scrub and yew scrub.

Appendix A Attributes of Habitats Sites assessed

Table A.6: Attributes of Kingley Vale SAC

Site Name (Area, ha)	Qualifying features and conservation objectives	Key vulnerabilities	Non-qualifying habitats and species upon which the qualifying habitats and/or species depend
<p>Kingley Vale SAC (208.05 ha)</p>	<p><i>Qualifying features:</i></p> <ul style="list-style-type: none"> ■ H6210 Semi-natural dry grasslands and scrubland facies: on calcareous substrates (<i>Festuco-Brometalia</i>) ■ H91J0 <i>Taxus baccata</i> woods of the British Isles <p><i>Conservation objectives:</i></p> <p>Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring;</p> <ul style="list-style-type: none"> ■ The extent and distribution of qualifying natural habitats and habitats ■ The structure and function (including typical species) 	<p><u>Deer</u></p> <p>Large herds of fallow deer present on the site appear to be a large factor in preventing natural regeneration of the yew trees. Surveys carried out in 2013 recorded little or no regeneration of yew.</p> <p><u>Undergrazing</u></p> <p>Undergrazing is a threat at this site due to the conflicting issues around grazing animals and yew toxicity.</p> <p>Agriculture</p> <p>Parts of the site are adjacent to land that is intensively managed for agriculture. This management includes the regular application of fertiliser and pesticide, which, if allowed to come into direct contact with the grassland sward, can destroy the sward entirely or, through the addition of nitrogen cause loss of species diversity.</p> <p><u>Air pollution</u></p>	<p>Natural England's Conservation Objectives: Supplementary Advice for this site [See reference 65] identify the following dependencies:</p> <p>Yew woodland requires shallow, dry soils usually on chalk or limestone slopes, but in a few areas stands on more mesotrophic soils are found. Semi-natural dry grasslands are generally found on thin, well-drained, lime-rich soils associated with chalk and limestone. These habitats are associated with a community of plant species, which need to be maintained as components of the qualifying habitats.</p> <p>In most cases increasing actual and functional landscape-scale connectivity would be beneficial. Securing the uptake of agri-environmental agreements on neighbouring land could serve to improve the quality of the landscape surrounding Kingley Vale.</p>

Appendix A Attributes of Habitats Sites assessed

Site Name (Area, ha)	Qualifying features and conservation objectives	Key vulnerabilities	Non-qualifying habitats and species upon which the qualifying habitats and/or species depend
	<p>of qualifying natural habitats, and</p> <ul style="list-style-type: none"> ■ The supporting processes on which qualifying natural habitats rely 	<p>Nitrogen deposition exceeds site relevant critical loads.</p>	

Mottisfont Bats SAC

A.7 Mottisfont Bats SAC - The Mottisfont woodland, which is near Romsey in Hampshire, supports an important population of the rare Barbastelle bat *Barbastella barbastellus*. Mottisfont contains a mix of woodland types including hazel *Corylus avellana* coppice with standards, broadleaved plantation and coniferous plantation which the bats use for breeding, roosting, commuting and feeding.

Appendix A Attributes of Habitats Sites assessed

Table A.7: Attributes of Mottisfont Bats SAC

Site Name (Area, ha)	Qualifying features and conservation objectives	Key vulnerabilities	Non-qualifying habitats and species upon which the qualifying habitats and/or species depend
<p>Mottisfont Bats SAC (196.55 ha)</p>	<p><i>Qualifying features:</i></p> <ul style="list-style-type: none"> ■ S1308 <i>Barbastella barbastellus</i>: Barbastelle bat <p><i>Conservation objectives:</i></p> <p>Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring:</p> <ul style="list-style-type: none"> ■ the extent and distribution of the habitats of qualifying species; ■ the structure and function of the habitats of qualifying species; 	<p><u>Feature location/ extent/ condition unknown</u></p> <p>Barbastelle bats use a number of sites for roosts throughout the breeding season. The last full survey which involved radio-tracking to identify the distribution of bats around the site was carried out in 2002. The current annual Bat Conservation Trust survey contract provides basic presence information on an annual basis in two thirds (4 of 6 compartments) of the designated site through bat detector surveys. Detailed, annual knowledge of the presence and distribution of the bats over the remaining one third of the site is needed.</p> <p><u>Forestry and woodland management</u></p> <p>There are existing felling licences and England Woodland Grant Scheme agreements which do not take account of the designation and are not managing the habitat with the Barbastelle bat population in the woodland in mind.</p> <p><u>Offsite habitat availability/ management</u></p>	<p>Natural England's Conservation Objectives: Supplementary Advice for this site [See reference 66] identify the following dependencies:</p> <p>The evidence suggests that trees in the woodlands are used as a summer maternity roost, with the barbastelles showing a preference toward roosting in deciduous, hardwood trees, particularly Oak, Beech and Sweet Chestnut. The bats also use the site as a foraging area and have known navigation routes through the woodland to (predominantly) riverine areas and subsequent feeding areas in the surrounding landscape.</p> <p>The species forages in mixed habitats, including over water. Barbastelles appear to select cracks and crevices in wood for breeding, mostly in old or damaged trees, but cracks and crevices in the timbers of old buildings may also be used. Maternity colonies may move between suitable crevices within a small</p>

Appendix A Attributes of Habitats Sites assessed

Site Name (Area, ha)	Qualifying features and conservation objectives	Key vulnerabilities	Non-qualifying habitats and species upon which the qualifying habitats and/or species depend
	<ul style="list-style-type: none"> ■ the supporting processes on which the habitats of qualifying species rely; ■ the populations of qualifying species; and ■ the distribution of qualifying species within the site. 	<p>Offsite areas of habitat may be important for the SAC bat population but insufficient information is available to guide management of these.</p>	<p>area, such as a piece of woodland or a complex of buildings. Caves and underground structures may be used for hibernation. The species is very sensitive to disturbance, together with the loss of roost-sites and food resources.</p> <p>The following are important wet features in the landscape around Mottisfont Bats: the channels of the River Test and River Dun, along with the fens, marshy areas, wet grassland and flowing ditches found in the surrounding valley floors. There are also a number of ponds and spring-fed channels running through the woodlands.</p>

New Forest SAC/SPA/Ramsar

A.8 New Forest SAC/ SPA/ Ramsar - The New Forest is a large and complex ecosystem and one of the largest remaining relatively wild areas in the South of England attracting enormous numbers of visitors each year.

Appendix A Attributes of Habitats Sites assessed

A.9 The New Forest SAC supports an extensive and complex mosaic of habitats including wet and dry heaths and associated bogs and mires, wet and dry grasslands, ancient pasture woodlands, frequent permanent and temporary ponds and a network of streams and rivers. These habitats support an exceptional variety of flora and fauna including internationally important populations of breeding and over-wintering birds and other notable species such as southern damselfly, stag beetle and great crested newt.

Table A.8: Attributes of New Forest SAC/SPA/Ramsar

Site Name (Area, ha)	Qualifying features and conservation objectives	Key vulnerabilities	Non-qualifying habitats and species upon which the qualifying habitats and/or species depend
New Forest SAC (29,213.57 ha)	<p><i>Qualifying features:</i></p> <ul style="list-style-type: none"> ■ H7140 Transition mires and quaking bogs ■ H7150 Depressions on peat substrates of the <i>Rhynchosporion</i> ■ H3110 Oligotrophic waters containing very few minerals of sandy plains (<i>Littorelletalia uniflorae</i>) ■ H3130 Oligotrophic to mesotrophic standing waters with vegetation of the <i>Littorelletea uniflorae</i> 	<p><u>Drainage</u></p> <p>A legacy of 150 years of drainage of mires, wet heathlands, wet grasslands and streams to improve grazing has led to a loss of peat, reduction of habitat condition, bracken and scrub encroachment. A programme of restoration has been going on for the past 10 years and around 3500ha of mire and streams has been identified as still requiring restoration.</p> <p>Inappropriate Scrub Control</p> <p>Lack of management and grazing, and inappropriate drainage has led to the loss of open habitats through encroachment of scrub and secondary woodland.</p> <p><u>Fish Stocking</u></p>	<p>Natural England's Conservation Objectives: Supplementary Advice for this site [See reference 67] identify the following dependencies:</p> <p>The New Forest sits in the centre of a dip in the surrounding chalk known as the Hampshire Basin and comprises a series of eroded terraces of soft sedimentary clays and sands capped with flint gravel, brickearth and other superficial deposits. The Soils are mainly acid, poor in nutrients, susceptible to leaching and only slowly permeable with locally enriched areas. This great variation in its soils is reflected in the New Forest's distinctive</p>

Appendix A Attributes of Habitats Sites assessed

Site Name (Area, ha)	Qualifying features and conservation objectives	Key vulnerabilities	Non-qualifying habitats and species upon which the qualifying habitats and/or species depend
	<p>and/or of the <i>Isoëto-Nanojuncetea</i></p> <ul style="list-style-type: none"> ■ H4010 Northern Atlantic wet heaths with <i>Erica tetralix</i> ■ H4030 European dry heaths ■ H6410 <i>Molinia</i> meadows on calcareous, peaty or clayey-silt-laden soils (<i>Molinion caeruleae</i>) ■ H7230 Alkaline fens ■ H9120 Atlantic acidophilous beech forests with <i>Ilex</i> and sometimes also <i>Taxus</i> in the shrub layer (<i>Quercion roboripetraeae</i> or <i>Ilici-Fagenion</i>) ■ H9130 <i>Asperulo-Fagetum</i> beech forests 	<p>Hatchet Pond, whilst not actively stocked, is managed as a coarse fishery including carp and bream. The common practice of ground baiting, which is popular with carp fisherman, can introduce nutrients and there may also be deliberate extra feeding to encourage growth of specimen sized fish. In addition, benthivorous fish contribute nutrient through their feeding habits. This has contributed to high turbidity and algal biomass putting the submerged flora at risk. Public disturbance and invasive species have also contributed to the declining condition of Hatchet Pond.</p> <p><u>Deer</u></p> <p>High levels of browsing prevent regeneration and cause a decline in the shrub and field layer of woodlands. The Forestry Commission and other landowners are actively managing the deer population and cooperating with existing strategies but levels are still perceived to be high.</p> <p><u>Air Pollution: impact of atmospheric nitrogen deposition</u></p> <p>Air pollution impacts on vegetation diversity. Aerial deposits of nitrogen may exceed the threshold limits above which the quality and</p>	<p>vegetation. The habitats include lowland heath, valley and seepage step mire, or fen, and ancient pasture woodland, including riparian and bog woodland and a range of acid to neutral grasslands. These habitats support an exceptionally rich diversity of fauna and flora which for much of the site are dependent on traditional management practices of grazing through Rights of Common complemented by annual heathland burning and cutting programmes. These provide structural diversity and a range of niches for plants and animals to utilise.</p> <p>Changes in surrounding land-use may adversely (directly/indirectly) affect the functioning of qualifying features and its component species.</p> <p>For H3110 - The passage of common eels upstream into Hatchet Pond are being restricted by a sluice</p> <p>For H3130 - Ponds are at risk from inputs and runoff from land adjacent to the SAC</p>

Appendix A Attributes of Habitats Sites assessed

Site Name (Area, ha)	Qualifying features and conservation objectives	Key vulnerabilities	Non-qualifying habitats and species upon which the qualifying habitats and/or species depend
	<ul style="list-style-type: none"> ■ H9190 Old acidophilous oak woods with <i>Quercus robur</i> on sandy plains <p><i>Conservation objectives:</i></p> <p>Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring:</p> <ul style="list-style-type: none"> ■ the extent and distribution of qualifying natural habitats and habitats of qualifying species; ■ the structure and function (including typical species) of qualifying natural habitats; ■ the structure and function of the habitats of qualifying species; ■ the supporting processes on which qualifying natural 	<p>character of vegetation begins to be altered and adversely impacted. This could potentially lead to a loss or change of habitat type which in turn will impact on species reliant on that habitat.</p> <p><u>Public Access/Disturbance</u></p> <p>The New Forest attracts high numbers of visitors annually and there is an assumption that disturbance affects SAC habitats through erosion, compaction and damage to vegetation and water bodies. Investigation into understanding the impact of recreation is required and recreation should be managed to minimise the impact and protect the European features. Hatchet pond attracts high numbers of visitors, walkers along the shoreline have eroded the banks and introduced sediment into the water, this together with feeding of birds and fishing activities has polluted the water and put the habitat at risk. Many of the 10 designated campsites within the New Forest are located in sensitive areas and have impoverished vegetation due to trampling and infrastructure. Sites in or adjacent to pasture woodland in particular are likely to progressively decline due to the impact on tree</p>	<p>Stream and river catchments extend beyond the boundary of the site and water quality and availability can be impacted by changes anywhere within the catchment. Changes outside of the site can affect the hydrological regime within the site and have significant implications for the assemblage of characteristic plants and animals present. Off-site land use change driven by the planning process or caused by other activities such as agriculture, recreational demands, or infrastructure provision need to take account of this connectivity and not be to the detriment of the ongoing structure and function of the habitats on-site. Consideration needs to be given to both direct and indirect impacts on the SAC features</p>

Appendix A Attributes of Habitats Sites assessed

Site Name (Area, ha)	Qualifying features and conservation objectives	Key vulnerabilities	Non-qualifying habitats and species upon which the qualifying habitats and/or species depend
	<p>habitats and the habitats of qualifying species rely;</p> <ul style="list-style-type: none"> ■ the populations of qualifying species; and ■ the distribution of qualifying species within the site. 	<p>regeneration, levels of dead wood, lichens and ground flora.</p> <p><u>Change in land management</u></p> <p>Restoration of conifer plantation to heathland and grassland habitats is taking place throughout the New Forest on private land, on the adjacent commons and on the Crown Lands where the Verderers Enclosures are being returned to open forest. Following initial felling there is often extensive regeneration of conifer which requires management. Lack of funds for follow-up management could lead to a failure of the restoration.</p> <p><u>Water Pollution</u></p> <p>Many villages have properties that are not on mains sewerage and have domestic treatment units which discharge into ditches and streams that are either within or flow into the SAC. The ditches and streams have seasonal flow and this in combination with a number of properties all discharging into the same channel could lead to an increase in nutrient levels impacting on the habitats they flow through, reducing species richness and diversity.</p> <p><u>Forestry and woodland management</u></p>	

Appendix A Attributes of Habitats Sites assessed

Site Name (Area, ha)	Qualifying features and conservation objectives	Key vulnerabilities	Non-qualifying habitats and species upon which the qualifying habitats and/or species depend
		<p>Lack of management of woodlands in private ownership has led to loss of characteristic ground flora and shrubs and threat from non-natives such as scots pine, turkey oak and rhododendron. Artificial drainage can impact on wetter habitats leading to loss of sphagnum and bryophytes.</p> <p><u>Inappropriate ditch management</u></p> <p>Ditches alongside tracks, roads, private property and for forestry practices can impact on wet habitats which causes a loss or conversion of habitat. Drainage into streams and bogs can carry silt adding nutrients and negatively impacting on species relying on the low nutrient status of the habitats.</p> <p><u>Invasive species</u></p> <p>A wide range of non-native invasive species such as Crassula helmslii, parrots feather, pitcher plant, rhododendron, turkey oak and Himalayan balsam can be found within the SAC habitats of the New Forest. Many non-native species invade and out compete native species.</p> <p><u>Parking</u></p>	

Appendix A Attributes of Habitats Sites assessed

Site Name (Area, ha)	Qualifying features and conservation objectives	Key vulnerabilities	Non-qualifying habitats and species upon which the qualifying habitats and/or species depend
		<p>Much of the SAC is unfenced with open access and numerous roads crisscrossing the site. Although the area is well served by car parks, parking on the verges is common, this is a particular problem in villages with parking on verges outside properties, village greens and Manorial wastes. This leads to a loss of vegetation, compaction of the soil and pollution. There are a variety of solutions available but funding will be required.</p> <p><u>Inappropriate cutting/ mowing/ grazing</u></p> <p>Loss of traditional hay cutting, grazing and scrub management in privately owned meadows and heathlands leading to a loss or conversion of habitat.</p> <p>In addition, there has been a significant long-term reduction in grazing pressure through loss of communing, which could lead to scrub encroachment and loss of habitat diversity.</p> <p><u>Direct impact from 3rd party</u></p> <p>Private property owners modify verges which are SAC habitats outside of their ownership. Issues include: creating new drives; re-turfing; planting hedges; encroachment by moving</p>	

Appendix A Attributes of Habitats Sites assessed

Site Name (Area, ha)	Qualifying features and conservation objectives	Key vulnerabilities	Non-qualifying habitats and species upon which the qualifying habitats and/or species depend
		boundaries, and storage of material and equipment.	
New Forest SPA (27,968.96 ha)	<p><i>Qualifying features:</i></p> <ul style="list-style-type: none"> ■ A072(B) <i>Pernis apivorus</i>: European honey-buzzard ■ A082(NB) <i>Circus cyaneus</i>: Hen harrier ■ A099(B) <i>Falco subbuteo</i>: Eurasian hobby ■ A224(B) <i>Caprimulgus europaeus</i>: European nightjar ■ A246(B) <i>Lullula arborea</i>: Woodlark ■ A302(B) <i>Sylvia undata</i>: Dartford warbler ■ A314(B) <i>Phylloscopus sibilatrix</i>: Wood warbler <p><i>Conservation objectives:</i></p> <p>Ensure that the integrity of the site is maintained or restored as</p>	<p><u>Public Access/Disturbance</u></p> <p>The New Forest attracts high numbers of visitors annually and there is an assumption that disturbance affects the breeding success of SPA birds. The pressures are not fully understood but a recent study concluded that nightjar, woodlark and Dartford warbler densities are notably low compared with other large heathland areas such as the Dorset Heaths and Thames Basin Heaths. Investigation into understanding the impact of recreation is required and recreation should be managed to minimise the impact and protect the European designated features.</p> <p><u>Inappropriate scrub control</u></p> <p>Lack of management and grazing, and inappropriate drainage has led to the loss of open habitats through encroachment of scrub and secondary woodland with potential knock-on effects on the SPA bird species using these habitats.</p> <p><u>Air Pollution: impact of atmospheric nitrogen deposition</u></p>	<p>Natural England's Conservation Objectives: Supplementary Advice for this site [See reference 68] identify the following dependencies:</p> <p>The qualifying bird species of the SPA are dependent on the range of habitats at the site (as designated by the SAC). Within this SPA the principal habitats supporting these qualifying species are as follows:</p> <ul style="list-style-type: none"> ■ Dartford warbler: mature lowland heathland, generally with abundant stands of mature gorse, clear-felled coniferous plantation woodland being restored to heathland ■ Honey buzzard: woodland ■ Hobby: lowland heathland / woodland ■ Hen harrier: lowland heathland ■ Woodlark: lowland heathland, clear-felled coniferous plantation

Appendix A Attributes of Habitats Sites assessed

Site Name (Area, ha)	Qualifying features and conservation objectives	Key vulnerabilities	Non-qualifying habitats and species upon which the qualifying habitats and/or species depend
	<p>appropriate, and ensure that the site contributes to achieving the aims of the Wild Birds Directive, by maintaining or restoring:</p> <ul style="list-style-type: none"> ■ the extent and distribution of the habitats of the qualifying features; ■ the structure and function of the habitats of the qualifying features; ■ the supporting processes on which the habitats of the qualifying features rely; ■ the population of each of the qualifying features; and ■ the distribution of the qualifying features within the site. 	<p>Air pollution impacts on vegetation diversity. Aerial deposits of nitrogen may exceed the threshold limits above which the quality and character of vegetation begins to be altered and adversely impacted. This could potentially lead to a loss or change of habitat type which in turn will impact on species reliant on that habitat.</p> <p><u>Change in land management</u></p> <p>Restoration of conifer plantation to heathland and grassland habitats is taking place throughout the New Forest on private land, on the adjacent commons and on the Crown Lands where the Verderers Inclosures are being returned to open forest. Following initial felling there is often extensive regeneration of conifer which requires management. Lack of funds for follow-up management could lead to a failure of the restoration with potential knock-on effects on the SPA birds that rely on open habitats.</p> <p><u>Inappropriate cutting/ mowing/ grazing</u></p> <p>Loss of traditional hay cutting, grazing and scrub management in privately owned meadows and heathlands leading to a loss or conversion of habitat with potential knock-on</p>	<p>woodland being restored to heathland, grassland and lichen heath</p> <ul style="list-style-type: none"> ■ Wood warbler: broad-leaved woodland ■ Nightjar: lowland heathland, woodland edge, coppiced woodland and clear-felled coniferous plantation woodland being restored to heathland <p>The ability of many bird species to safely and successfully move to and from nesting, feeding and roosting areas is critical to their breeding success and to the adult fitness and survival. An open landscape may also be required to facilitate movement of birds between the SPA and any off-site supporting habitat.</p> <p>Honey buzzard, hobby, woodlark and nightjar are known to favour large areas of open terrain, largely free of obstructions, in and around its nesting, roosting and feeding areas. Often there is a need to maintain an unobstructed line of sight within nesting, feeding or roosting habitat to detect approaching</p>

Appendix A Attributes of Habitats Sites assessed

Site Name (Area, ha)	Qualifying features and conservation objectives	Key vulnerabilities	Non-qualifying habitats and species upon which the qualifying habitats and/or species depend
		<p>effects on the SPA birds that rely on open habitats.</p>	<p>predators, or to ensure visibility of displaying behaviour. The home range of breeding Honey buzzards can extend to several kilometres from its nesting area.</p> <p>The nightjar is insectivorous, feeding primarily on moths and beetles during the summer. The location of feeding areas which support the SPA's nightjar population is often not well understood and may require further studies or research. More generally, nightjars are known to forage in such habitats as open forest and heathland This target will apply within the site boundary and where birds regularly move to and from off-site habitat where this is relevant. The foraging range of nightjar is known to extend up to several kilometres from their nest sites.</p> <p>Local populations of Dartford Warbler are subject to large variation in numbers in response to changing weather patterns and habitat structure. It is important that birds are able to move across the landscape and between patches of suitable habitat so they can</p>

Appendix A Attributes of Habitats Sites assessed

Site Name (Area, ha)	Qualifying features and conservation objectives	Key vulnerabilities	Non-qualifying habitats and species upon which the qualifying habitats and/or species depend
			re-colonise readily from strongholds. Habitat connectivity is particularly important for this species.
New Forest Ramsar (28,002.81 ha)	<p><i>Qualifying features:</i></p> <p><u>Ramsar Criterion 1</u></p> <p>Valley mires and wet heaths are found throughout the site and are of outstanding scientific interest. The mires and heaths are within catchments whose uncultivated and undeveloped state buffer the mires against adverse ecological change. This is the largest concentration of intact valley mires of their type in Britain.</p> <p><u>Ramsar Criterion 2</u></p> <p>The site supports a diverse assemblage of wetland plants and animals including several nationally rare species. Seven species of nationally rare plant are found on the site, as are at least 65 British Red Data Book species of invertebrate.</p>	<p><u>Commercial-scale forest exploitation</u></p> <p>No information available.</p> <p><u>Drainage/land-claim (unspecified)</u></p> <p>No information available.</p> <p><u>Introduction/invasion of non-native plant species</u></p> <p>No information available.</p> <p><u>Recreational/tourism disturbance (unspecified)</u></p> <p>No information available.</p>	See SAC and SPA, above

Appendix A Attributes of Habitats Sites assessed

Site Name (Area, ha)	Qualifying features and conservation objectives	Key vulnerabilities	Non-qualifying habitats and species upon which the qualifying habitats and/or species depend
	<p><u>Ramsar Criterion 3</u></p> <p>The mire habitats are of high ecological quality and diversity and have undisturbed transition zones. The invertebrate fauna of the site is important due to the concentration of rare and scarce wetland species. The whole site complex, with its examples of semi-natural habitats is essential to the genetic and ecological diversity of southern England.</p>		

Porton Down SPA

A.10 Salisbury Plain SAC, which includes Porton Down, represents the largest surviving semi-natural dry grassland area within north–west Europe. It hosts the priority habitat type 'orchid-rich sites' and supports extensive areas of *Bromus erectus* grassland, which is the most widespread and abundant calcareous grassland found in the UK.

Appendix A Attributes of Habitats Sites assessed

Table A.9: Attributes of Porton Down SPA

Site Name (Area, ha)	Qualifying features and conservation objectives	Key vulnerabilities	Non-qualifying habitats and species upon which the qualifying habitats and/or species depend
<p>Porton Down SPA (1,562.32 ha)</p>	<p><i>Qualifying features:</i></p> <ul style="list-style-type: none"> ■ A133 <i>Burhinus oediconemus</i>; Stone-curlew (Breeding) <p><i>Conservation objectives:</i></p> <p>Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the aims of the Wild Birds Directive, by maintaining or restoring;</p> <ul style="list-style-type: none"> ■ The extent and distribution of the habitats of the qualifying features ■ The structure and function of the habitats of the qualifying features ■ The supporting processes on which the habitats of the qualifying features rely 	<p>Porton Down SPA is included in the Site Improvement Plan for Salisbury Plain SAC. No threats or pressures are identified for Porton Down SPA specifically, although the qualifying features of the SPA will be reliant on the site's habitats (designated as part of the SAC).</p>	<p>Natural England's Conservation Objectives: Supplementary Advice for this site [See reference 69] identify the following dependencies:</p> <p>The designated site is important for chalk grassland and heath, with scrub, ancient and plantation woodland, a large juniper population, lichens, rare flowering plants, butterflies and other invertebrates, and breeding birds, including stone-curlew.</p> <p>Stone-curlews nest on open, bare ground or areas with short or sparse vegetation height below 2 cm. The stone-curlew's preferred feeding habitats are short grassland, both semi-natural and improved, spring tillage, pig fields and manure heaps. Past research has demonstrated the importance of vegetation structure for foraging. On Porton Down SPA and surrounds, all these habitats are available.</p>

Appendix A Attributes of Habitats Sites assessed

Site Name (Area, ha)	Qualifying features and conservation objectives	Key vulnerabilities	Non-qualifying habitats and species upon which the qualifying habitats and/or species depend
	<ul style="list-style-type: none"> ■ The population of each of the qualifying features, and, ■ The distribution of the qualifying features within the site. 		<p>This feature is known to favour large areas of open terrain, largely free of obstructions, in and around its nesting, roosting and feeding areas. Often there is a need to maintain an unobstructed line of sight within nesting, feeding or roosting habitat to detect approaching predators, or to ensure visibility of displaying behaviour. An open landscape may also be required to facilitate movement of birds between the SPA and any off-site supporting habitat.</p>

Portsmouth Harbour SPA/Ramsar

A.11 Portsmouth Harbour SPA/ Ramsar - Portsmouth Harbour is a large, industrialised estuary, with internationally and nationally important numbers of birds. Together with the adjacent Chichester and Langstone Harbours, it forms one of the most important sheltered intertidal areas on the south coast of England. Portsmouth Harbour SPA is composed of extensive intertidal mudflats and sandflats with seagrass beds, areas of saltmarsh, shallow coastal waters, coastal lagoons and coastal grazing marsh. At low tide the extensive mudflats are exposed, the water drained by channels and creeks uniting to form a narrow exit into the Solent. There is comparatively little freshwater input to Portsmouth Harbour. The largest input is the River Wallington, which flows into Fareham Creek in the north-west of Portsmouth Harbour. The estuarine sediments support rich populations of intertidal invertebrates, which provide an important food source for overwintering birds. There are approximately 77 ha of

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seagrass beds in Portsmouth Harbour, which are found mainly in the north-west of the harbour. These beds include both *Zostera marina* (found on the low shore) and *Zostera noltii* (on the upper to mid shore). The seagrass beds are amongst the most extensive in Britain and are an important food source for dark-bellied Brent goose. The saltmarsh areas are mainly comprised of cordgrass (*Spartina*) swards and provide feeding and roosting areas for overwintering birds.

Table A.10: Attributes of Portsmouth Harbour SPA/Ramsar

Site Name (Area, ha)	Qualifying features and conservation objectives	Key vulnerabilities	Non-qualifying habitats and species upon which the qualifying habitats and/or species depend
Portsmouth Harbour SPA (1,249.6 ha)	<p><i>Qualifying features:</i></p> <ul style="list-style-type: none"> ■ A046a <i>Branta bernicla bernicla</i>; Dark-bellied brent goose (Non-breeding) ■ A069 <i>Mergus serrator</i>; Red-breasted merganser (Non-breeding) ■ A149 <i>Calidris alpina alpina</i>; Dunlin (Non-breeding) ■ A156 <i>Limosa limosa islandica</i>; Black-tailed godwit (Non-breeding) <p><i>Conservation objectives:</i></p>	<p><u>Public Access/Disturbance</u></p> <p>Recreational activities can affect annual vegetation of drift lines (H1210) and the vegetation of stony banks (H1220).</p> <p><u>Coastal squeeze</u></p> <p>Habitats are being lost as they are squeezed between rising sea levels and hard coastal defences that are maintained. There is a direct impact due to loss of the SAC habitats such as saltmarsh. In some areas rising sea levels will result in coastal grasslands being lost to more saline grasslands. The habitats that are lost could be created elsewhere, but there is difficulty in finding suitable areas. The neutral grassland habitats will take a long time to</p>	<p>In general, the qualifying bird species of the SPA rely on:</p> <ul style="list-style-type: none"> ■ The site's ecosystem and hydrology as a whole (see list of habitats below). ■ Maintenance of populations of species that they feed on (see list of diets below). ■ Off-site habitat, which provide foraging habitat for these species. <p>Open landscape with unobstructed line of sight within nesting, foraging or roosting habitat.</p>

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Site Name (Area, ha)	Qualifying features and conservation objectives	Key vulnerabilities	Non-qualifying habitats and species upon which the qualifying habitats and/or species depend
	<p>Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the aims of the Wild Birds Directive, by maintaining or restoring:</p> <ul style="list-style-type: none"> ■ The extent and distribution of the habitats of the qualifying features ■ The structure and function of the habitats of the qualifying features ■ The supporting processes on which the habitats of the qualifying features rely ■ The population of each of the qualifying features, and, ■ The distribution of the qualifying features within the site. 	<p>create as mitigation, but intertidal habitat can be created relatively quickly. Current compensation provides required habitat for Epoch 1 of the Shoreline Management Plan 2, further investigation is required for Epoch 2 and 3. This project will utilise outputs from Shoreline Management Plans, the Environment Agency's Regional Habitat Creation Project and the New Forest District Council/Channel Coastal Observatory's Solent Dynamic Coast Project.</p> <p><u>Fisheries: Commercial marine and estuarine</u></p> <p>Towed gear, hand gathering of shellfish, bait digging and aquaculture are the main fishery activities in this site.</p> <p><u>Water pollution</u></p> <p>Water pollution affects a range of habitats at the site through eutrophication and toxicity. Sources include both point source discharges (including flood alleviation / storm discharges) and diffuse water pollution from agriculture / road runoff, as well as historic contamination of marine sediments, primarily from copper and Tributyltin (TBT). A position statement from the Environment Agency and Natural England on</p>	<p>There are no Natural England Conservation Objectives: Supplementary Advice for this site. We will further consider the dependencies of the site's qualifying features in the next iteration of the HRA.</p>

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Site Name (Area, ha)	Qualifying features and conservation objectives	Key vulnerabilities	Non-qualifying habitats and species upon which the qualifying habitats and/or species depend
		<p>water quality in the Solent and housing growth confirms the need to control nitrogen inputs to the Solent from development growth. Environment Agency flood event discharge consents allow untreated waters to be discharged which end up in the SAC and are likely to have a negative impact. There is a threat of spillage from oil transportation and transfer and by the usage by ships and pilotage.</p> <p><u>Changes in species distributions</u></p> <p>Areas of saltmarsh are eroding and decreasing.</p> <p><u>Change to site conditions</u></p> <p>There is an increasing loss of saltmarsh in much of the Solent for reasons unknown, and this needs to be investigated.</p> <p><u>Biological Resource Use</u></p> <p>Gull egg collecting occurs in some places, and wildfowling occurs in several places. These activities are likely to be disturbing to breeding and wintering birds even though they are licenced/consented at the moment.</p>	

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Site Name (Area, ha)	Qualifying features and conservation objectives	Key vulnerabilities	Non-qualifying habitats and species upon which the qualifying habitats and/or species depend
		<p><u>Air Pollution: Impact of atmospheric nitrogen deposition</u></p> <p>Nitrogen deposition exceeds site relevant critical loads. Locally observed effects are unknown.</p> <p><u>Direct impact from 3rd party</u></p> <p>Off-roading is causing damage to some areas of grassland. Private sea defences are causing disruption to the natural movement processes of natural materials along the coast. House boats are unlicensed and have the potential to cause damage to intertidal habitats. Fly grazing is causing issues affecting large areas of Chichester Harbour.</p> <p><u>Other</u></p> <p>SAC boundary may not cover the extent of all Annex 1 and Annex 2 features and/or supporting habitats.</p>	
<p>Portsmouth Harbour Ramsar (1,248.77 ha)</p>	<p><i>Qualifying features:</i> <u>Ramsar Criterion 3</u></p> <p>The intertidal mudflat areas possess extensive beds of eelgrass <i>Zostera angustifolia</i> and <i>Zostera noltei</i> which support</p>	<p><u>Eutrophication</u></p> <p>No information available.</p> <p><u>Unspecified development: urban use</u></p> <p>Disturbance and land-take pressures (on and off-site) from urban and industrial development.</p>	<p>In general, the qualifying bird species of the SPA rely on:</p> <ul style="list-style-type: none"> ■ The site's ecosystem and hydrology as a whole (see list of habitats below).

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Site Name (Area, ha)	Qualifying features and conservation objectives	Key vulnerabilities	Non-qualifying habitats and species upon which the qualifying habitats and/or species depend
	<p>the grazing dark-bellied brent geese populations. The mud-snail <i>Hydrobia ulvae</i> is found at extremely high densities, which helps to support the wading bird interest of the site.</p> <p>Common cord-grass <i>Spartina anglica</i> dominates large areas of the saltmarsh and there are also extensive areas of green algae <i>Enteromorpha</i> spp. and sea lettuce <i>Ulva lactuca</i>. More locally the saltmarsh is dominated by sea purslane <i>Halimione portulacoides</i> which gradates to more varied communities at the higher shore levels. The site also includes a number of saline lagoons hosting nationally important species.</p> <p><u>Ramsar criterion 6</u></p> <p>Species/populations occurring at levels of international importance.</p>	<p><u>Coastal engineering, e.g. construction of sea defences for coastal protection</u></p> <p>Coastal squeeze arising from coastal defences.</p>	<ul style="list-style-type: none"> ■ Maintenance of populations of species that they feed on (see list of diets below). ■ Off-site habitat, which provide foraging habitat for these species. <p>Open landscape with unobstructed line of sight within nesting, foraging or roosting habitat.</p>

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Site Name (Area, ha)	Qualifying features and conservation objectives	Key vulnerabilities	Non-qualifying habitats and species upon which the qualifying habitats and/or species depend
	Qualifying Species/ populations (as identified at designation): Species with peak counts in winter: Dark-bellied brent goose, <i>Branta bernicla bernicla</i>		

River Itchen SAC

A.12 River Itchen SAC - The River Itchen is one of the `classic` chalk rivers of southern England, drawing most of its character from this geological stratum. The Itchen supports an abundant and exceptionally species rich aquatic flora. It has a primary notification for its river habitat, at SSSI level (chalk river type) and also under Habitats Directive Annex I (Code H3260, watercourses with Ranunculion and Batrachion vegetation). This habitat notification comprises the river channel, its banks and parts of its riparian zone. In addition, parts of the floodplain are notified for their wetland habitat, and the river discharges via Southampton Water into the Solent which has a range of habitat designations.

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Table A.11: Attributes of River Itchen SAC

Site Name (Area, ha)	Qualifying features and conservation objectives	Key vulnerabilities	Non-qualifying habitats and species upon which the qualifying habitats and/or species depend
River Itchen SAC (303.98 ha)	<p><i>Qualifying features:</i></p> <ul style="list-style-type: none"> ■ H3260 Water courses of plain to montane levels with the Ranunculion fluitantis and Callitriche-Batrachion vegetation ■ S1044 Southern damselfly Coenagrion mercuriale ■ S1163 Bullhead Cottus gobio ■ S1092 White-clawed (or Atlantic stream) crayfish Austropotamobius pallipes ■ S1096 Brook lamprey Lampetra planeri ■ S1106 Atlantic salmon Salmo salar ■ S1355 Otter Lutra lutra <p><i>Conservation objectives:</i></p>	<p><u>Water Pollution</u></p> <p>The Diffuse Water Pollution Plan identifies numerous issues with water quality, in addition to point sources from Waste Water Treatment Works. The Plan is a critical document to achieve favourable condition, and action-owners were consulted as part of the process of revising the plan. Pollution causes excessive algal growth, smothering macrophytes, and increased BOD, decreasing oxygen availability for spawning gravels used by salmon and trout.</p> <p>Reducing road run off can build on the existing Environment Agency and Highways Agency project assessing priority outfalls and use existing Memorandum of Understanding to highlight any known issues with trunk roads for potential remedial funding.</p> <p>Work is needed with the Environment Agency to quantify any impacts. Possible role for Test and Itchen Catchment Partnership (TICP) through the Catchment Action Plan, to focus on non-trunk roads with Hampshire County Council. Environment Agency (EA) Review of</p>	<p>Natural England's Conservation Objectives: Supplementary Advice for this site [See reference 70] identify the following dependencies:</p> <p>The Itchen is mainly spring-fed and has only a narrow range of seasonal variation in physical and chemical characteristics. The water is of high quality, being naturally base-rich and of great clarity; and its temperature is relatively constant, with dissolved oxygen levels at or near saturation. The majority of species are present throughout the system and downstream changes are less than in most other rivers. The river provides good water quality, extensive beds of submerged plants that act as a refuge for fish species, and coarse sediments that are vital for spawning and juvenile development.</p> <p>The Itchen valley contains areas of fen, swamp and meadow supporting</p>

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Site Name (Area, ha)	Qualifying features and conservation objectives	Key vulnerabilities	Non-qualifying habitats and species upon which the qualifying habitats and/or species depend
	<p>Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring:</p> <ul style="list-style-type: none"> ■ The extent and distribution of qualifying natural habitats and habitats of qualifying species; ■ The structure and function (including typical species) of qualifying natural habitats; ■ The structure and function of the habitats of qualifying species; ■ The supporting processes on which qualifying natural habitats and the habitats of qualifying species rely; ■ The populations of qualifying species; and 	<p>Consents (RoC) process has been completed, but phosphate standards used conform to previous Common Standards Monitoring (CSM) guidance (used for setting SSSI and SAC targets). There is a risk of permitting several years of non-compliance from affected discharges. Revised CSM targets may impact on all discharges.</p> <p><u>Physical modification</u></p> <p>A range of physical modifications affect the Annex I river habitat, which have adverse consequences for characteristic biological communities of the habitat including specifically notified species. Modifications include weirs and other in-channel structures causing impoundment, siltation and interruptions to biological movements, over-deepening, over-widening and straightening of channels, and bank re-sectioning and reinforcement.</p> <p><u>Siltation</u></p> <p>Siltation resulting from a variety of factors (direct inputs of silt into the system from land use, runoff from diffuse sources, deposition arising from impoundments and overwide channels) is a widespread problem affecting</p>	<p>vegetation with diverse plant communities, some typically species-rich. Water courses, including meadow ditches, base-rich runnels and flushes in open areas, and small side- channels. The diverse and stable habitat conditions support the qualifying species.</p> <p>The characteristic biological communities of the site (including its qualifying species) are dependent on the integrity of sections of river channel, riparian areas, and transitional and marine waters that lie outside of the site boundary. Headwater areas and tributaries may not fall within the site boundary, yet a range of species characteristic of the site may use these areas for spawning and juvenile development and be critical for sustaining populations within the site. Fully developed riparian zones are essential to site integrity, yet part of this zone may lie outside of the site boundary, particularly if the river channel is operating under natural processes and moves laterally over time within the</p>

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Site Name (Area, ha)	Qualifying features and conservation objectives	Key vulnerabilities	Non-qualifying habitats and species upon which the qualifying habitats and/or species depend
	<ul style="list-style-type: none"> ■ The distribution of qualifying species within the site. 	<p>the Annex I river habitat, with consequences for macrophytes, southern damselfly habitat (where in ditches) and spawning gravels for fish.</p> <p><u>Overgrazing</u></p> <p>Impacts of over-grazing on river banks and wet meadow systems, removing riparian and meadow habitat and causing runoff into watercourses.</p> <p><u>Water abstraction</u></p> <p>Abstraction modifies the natural flow regime on which the Annex I river habitat depends for its proper functioning. Impacts may occur on habitat character and habitat extent, within the channel or in riparian wetland areas. All parts of the flow regime may be affected but low-to-intermediate flows are most likely to be significantly impacted. Abstraction should not impact on floodplain SAC features such as southern damselfly, as well as riverine features such as salmon. Effects on the habitat can have various effects on individual notified species. Activities outside of the SAC may also have detrimental impacts on site features and habitats. Natural England does not endorse any particular solution at this time.</p>	<p>floodplain. The conditions experienced by long-distance migratory species (such as salmon, sea and river lampreys, allis and twaite shads and eels) outwith the site (through the saline transition zone, estuary, coastal waters and into the high seas) are critical to the well-being of populations within the site. Off-site influences that may impact on the well-being of the population within the site may include, but not limited to, entrainment, temperature, water quality, mortality from exploitation. The adjacent habitat is in hydrological continuity with the river. The river floodplain comprises characteristic vegetation types that reflect the natural variation in topographical and hydrological conditions. The fen habitats show characteristic zonations of vegetation types arising from hydrological factors and the zonation is not truncated or fragmented by land use or management factors.</p>

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Site Name (Area, ha)	Qualifying features and conservation objectives	Key vulnerabilities	Non-qualifying habitats and species upon which the qualifying habitats and/or species depend
		<p><u>Inappropriate weed control</u></p> <p>Management of aquatic weed for fishery activities affects protected habitats e.g. Ranunculus. This activity is currently exempted under the OLDs list (Operations Likely to Damage), and the extent and level of impacts on the watercourse is not conclusively known.</p> <p><u>Hydrological changes</u></p> <p>Some locations on the floodplains are too dry, with reasons not clear - impacts on ditches (decreased flowing water) for southern damselfly and meadow flora.</p> <p><u>Inappropriate water levels</u></p> <p>Water levels are not appropriate. The Water Level Management Plan (Natural England with Environment Agency) agreed options to re-wet the floodplain, benefitting flora and connecting habitat for southern damselfly. These need re-appraisal and implementation where possible.</p> <p><u>Change in land management</u></p> <p>Risk of non-compliance with HLS agreements may be affecting water quality of the river and floodplain carriers.</p>	

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Site Name (Area, ha)	Qualifying features and conservation objectives	Key vulnerabilities	Non-qualifying habitats and species upon which the qualifying habitats and/or species depend
		<p><u>Inappropriate cutting/mowing</u></p> <p>There are some instances of inappropriate management of riverbanks, which impacts on marginal habitat, with consequences for riparian and in-channel biota. These affect the biota using the riparian zone directly, and the biota of the river channel in terms of reducing bankside cover and enhancing silt inputs. Better bankside management can help prevent runoff from adjacent fields into the river, protecting water quality.</p> <p><u>Invasive species</u></p> <p>The presence of signal crayfish in parts of the catchment is suspected posing a significant risk to the white-clawed crayfish population through crayfish plague. However, white-clawed crayfish populations are fragmented, and therefore direct impacts from signals are suspected not to be significant. Also, there are widespread issues with Himalayan and orange balsam along the riparian corridor but the extent of the problem is unknown.</p> <p><u>Undergrazing</u></p> <p>Undergrazing impacts on wet meadow systems, causing degradation of southern damselfly habitat in particular. Bridges are</p>	

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Site Name (Area, ha)	Qualifying features and conservation objectives	Key vulnerabilities	Non-qualifying habitats and species upon which the qualifying habitats and/or species depend
		<p>required to access and manage sites and prevent SAC condition to deteriorate. This requires special project funding, which is currently prohibited in HLS agreements.</p> <p><u>Inappropriate ditch management</u></p> <p>Some ditches are not managed, leading to reed encroachment, reducing flow and therefore prohibiting southern damselfly breeding habitat.</p> <p><u>Inappropriate scrub control</u></p> <p>Inappropriate scrub control impacts particularly around ditches for southern damselfly, where scrub shades some ditches, preventing growth of marginal plants for egg-laying, and reduce flow in ditches.</p> <p><u>Forestry and woodland management</u></p> <p>Some parts of channel are excessively shaded by wet woodland, impacting on the macrophyte community. The River Restoration Strategy identifies some stretches where excessive shading is causing a problem, but it is important to look at whole catchment, and assess against all SAC features when reviewing locations/actions. Some stretches</p>	

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Site Name (Area, ha)	Qualifying features and conservation objectives	Key vulnerabilities	Non-qualifying habitats and species upon which the qualifying habitats and/or species depend
		may benefit from tree planting to reduce water temperatures, particularly in	

Rook Clift SAC

A.13 Rook Clift SAC is a forest of slopes, screes and ravines, associated with rocky slopes on the base rich soils of the South Downs. This ancient woodland is dominated by large coppice stools of Large-leaved lime, together with Ash and some Beech. The presence of Large-leaved lime as a canopy dominant makes this woodland virtually unique. The site also supports a number of mollusc species, notably the Cheese snail and a rich bryophyte flora.

Table A.12: Attributes of Rook Clift SAC

Site Name (Area, ha)	Qualifying features and conservation objectives	Key vulnerabilities	Non-qualifying habitats and species upon which the qualifying habitats and/or species depend
Rook Clift SAC (10.82 ha)	<p><i>Qualifying features:</i></p> <ul style="list-style-type: none"> ■ H9180. <i>Tilio-Acerion</i> forests of slopes, screes 	<u>Deer</u>	Natural England's Conservation Objectives: Supplementary Advice for this site [See reference 71] identify the following dependencies:

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Site Name (Area, ha)	Qualifying features and conservation objectives	Key vulnerabilities	Non-qualifying habitats and species upon which the qualifying habitats and/or species depend
	<p>and ravines; Mixed woodland on base-rich soils associated with rocky slopes*</p> <p><i>Conservation objectives:</i> Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring;</p> <ul style="list-style-type: none"> ■ The extent and distribution of qualifying natural habitats ■ The structure and function (including typical species) of qualifying natural habitats , and ■ The supporting processes on which qualifying natural habitats rely 	<p>Deer are currently present in numbers that threaten potential regeneration of the woodland shrub and canopy species.</p> <p><u>Forestry and woodland management</u></p> <p>The woodland as a whole requires management, however, there is currently no agreed management plan in place stating management priorities or timescales. Previous recommendations to coppice the Large-leaved lime have been followed. Further work is required for sustainable management into the future.</p> <p><u>Feature location / extent / condition unknown</u></p> <p>The distribution and abundance of Large-leaved lime trees within the woodland is not recorded. It is therefore not possible to monitor change or identify management requirements.</p>	<p>This site is an ancient woodland which remains in a semi-natural condition. Large-leaved lime <i>Tilia platyphyllos</i> dominates the canopy, together with some ash <i>Fraxinus excelsior</i> and beech <i>Fagus sylvatica</i>. It lies on the deeper soils towards the base of the slope and valley bottom of the small wooded combe, which gives the site its humid microclimate. The soils are rather deeper and there is less exposed rock at this site because the chalk is more readily weathered than the limestones on which many of the other sites lie.</p> <p>This 10 ha woodland is small and for a healthy woodland ecosystem, the management of the wider landscape is key. The unique feature of Rook Cliff is the occurrence of so many large leaved limes which should be conserved.</p>

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Salisbury Plain SAC

A.14 Salisbury Plain SAC (which includes Porton Down SPA) represents the largest surviving semi-natural dry grassland area within north–west Europe. It hosts the priority habitat type 'orchid-rich sites' and supports extensive areas of *Bromus erectus* grassland, which is the most widespread and abundant calcareous grassland found in the UK.

Table A.13: Attributes of Salisbury Plain SAC

Site Name (Area, ha)	Qualifying features and conservation objectives	Key vulnerabilities	Non-qualifying habitats and species upon which the qualifying habitats and/or species depend
Salisbury Plain SAC (21,438.10 ha)	<p><i>Qualifying features:</i></p> <ul style="list-style-type: none"> ■ H5130. <i>Juniperus communis</i> formations on heaths or calcareous grasslands; ■ H6210. Semi-natural dry grasslands and scrubland facies: on calcareous substrates (<i>FestucoBrometalia</i>) (important orchid sites); ■ S1065. <i>Euphydryas</i> (<i>Eurodryas</i>, <i>Hypodryas</i>) 	<p><u>Changes in species distribution</u></p> <p>On Porton Down, the juniper population is judged to be in Unfavourable Condition due to a decline in the population level. A recent Wiltshire Botanical Society survey counted bushes according to age, health and sex. A new cohort of seedlings is developing at various locations across the site, some of which will be protected by rabbit exclosure. Success with bringing on cuttings means that this technique could potentially be extended to provide enough tall/rabbit-proof plants for planting</p>	<p>Natural England's Conservation Objectives: Supplementary Advice for this site [See reference 72] identify the following dependencies:</p> <p>Salisbury Plain is an extensive and open rolling chalk plateau, with Parsonage Down on the southern edge of this and Porton Down to the south-west. The three constituent sites are located on chalk geology, cut by the tributaries of the Hampshire Avon. The soils are generally alkaline and free-draining, apart from places with overlying clay-with flints and long-term rainwater leaching and lessivage,</p>

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Site Name (Area, ha)	Qualifying features and conservation objectives	Key vulnerabilities	Non-qualifying habitats and species upon which the qualifying habitats and/or species depend
	<p><i>aurinia</i>; Marsh fritillary butterfly</p> <p><i>Conservation objectives:</i></p> <p>Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring;</p> <ul style="list-style-type: none"> ■ The extent and distribution of qualifying natural habitats and habitats of qualifying species ■ The structure and function (including typical species) of qualifying natural habitats ■ The structure and function of the habitats of qualifying species ■ The supporting processes on which qualifying natural habitats and the habitats of qualifying species rely 	<p>out and restoring the population. <i>Phytophthora austrocedri</i> has caused dieback and mortality of juniper at a National Nature Reserve in the north Pennines; therefore, any plan to import juniper plant material onto the SAC, should consider the bio-security risk.</p> <p><u>Air pollution</u></p> <p>On Salisbury Plain SAC, nitrogen deposition exceeds the critical load for juniper <i>Juniperus communis</i> subsp. <i>communis</i>. There is a risk that this could contribute towards coarse grass dominance, decline in lichens, changes in plant biochemistry and an increased sensitivity to abiotic stress. Nitrogen deposition also exceeds the critical load for the Marsh fritillary population.</p>	<p>which are more acidic. The defining habitat type is chalk grassland, also some secondary and ancient woodland is present. Juniper scrub is significant on parts of Salisbury Plain and much of Porton Down.</p> <p>Marsh fritillaries survive in ‘meta-populations’ formed by a number of subpopulations (linked by occasional migration) which may frequently die out and re-establish. Marsh fritillary colonies will move between sites or to different habitat patches within sites in response to changing ecological conditions. These meta-populations are reliant on the conservation of a cluster of suitable sites in close proximity to enable this (re)colonisation. Adult butterflies tend to be sedentary but some individuals will disperse and have been known to move up to 15-20km away; and remain in a series of linked metapopulations, forming numerous temporary sub-populations, which frequently die out and re-colonise. Where unable to do this, populations do not seem to be able to persist in habitat fragments. It is therefore essential to conserve a cluster of sites in close proximity. The connectivity of the wider local landscape to the SAC may therefore be</p>

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Site Name (Area, ha)	Qualifying features and conservation objectives	Key vulnerabilities	Non-qualifying habitats and species upon which the qualifying habitats and/or species depend
	<ul style="list-style-type: none"> ■ The populations of qualifying species, and, ■ The distribution of qualifying species within the site. 		<p>important as this may help to ensure the survival of the overall population even if sub-populations are temporarily affected.</p> <p>Salisbury Plain East is currently disconnected from the Centre and West, for average butterfly dispersals; similarly, Parsonage Down SSSI/NNR and the SSSIs on the northern perimeter of the military training area are disconnected from Salisbury Plain SSSI, for average butterfly dispersals. The land between these sites may provide critical functional connection for marsh fritillary butterfly and should be restored. Similarly, the northern edge of Porton Down has scope for connecting to the nearby RSPB reserve, Winterbourne Downs, where extensive chalk grassland creation is already underway.</p>

Shortheath Common SAC

A.15 Shortheath Common SAC is common land situated in East Hampshire and consists of a wide range of wet and dry heathland habitats and bog woodland. The focal point of the site is a substantial valley mire with a rich ground flora of species such as sedges, sundew, cotton grass,

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and marsh cinquefoil. Bog mosses form a floating raft over much of the mire. The mire is notable for its high cover of cranberry. The site has a diverse dragonfly assemblage.

Table A.14: Attributes of Shortheath Common SAC

Site Name (Area, ha)	Qualifying features and conservation objectives	Key vulnerabilities	Non-qualifying habitats and species upon which the qualifying habitats and/or species depend
Shortheath Common SAC (58.94 ha)	<p><i>Qualifying features:</i></p> <ul style="list-style-type: none"> ■ H4030. European dry heaths ■ H7140. Transition mires and quaking bogs; Very wet mires often identified by an unstable `quaking` surface ■ H91D0. Bog woodland <p><i>Conservation objectives:</i></p> <p>Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status</p>	<p><u>Inappropriate scrub control</u></p> <p>There is a build up of scrub and leaf litter, alongside areas where grasses are dominant or too tall. Active management is required to reduce this and there are several options available. Approval from Planning Inspectorate (PINS) is being sought to allow installation of fencing and other infrastructure, to enable grazing on the common.</p> <p><u>Public access / disturbance</u></p> <p>This site is common land and open access, and is regularly used for recreation. Shortheath Common is dissected by a road and there are parking facilities that enable visitors to access the common. Integrated Site Assessment carried out in 2013 identified areas of acid grassland and dry heath where vegetation was being lost due to recreational disturbance.</p>	<p>Natural England's Conservation Objectives: Supplementary Advice for this site [See reference 73] identify the following dependencies:</p> <p>European dry heaths typically occur on freely-draining, acidic to circumneutral soils with generally low nutrient content. The term 'transition mire' relates to vegetation that in floristic composition and general ecological characteristics is transitional between acid bog and alkaline fens, in which the surface conditions range from markedly acidic to slightly base-rich. A birch <i>Betula</i> spp.-dominated variant of Bog woodland occurs where birch <i>Betula</i> spp. or willow <i>Salix</i> spp. occur in long-term stable combinations with bog vegetation. The habitat type has not previously been well</p>

Appendix A Attributes of Habitats Sites assessed

Site Name (Area, ha)	Qualifying features and conservation objectives	Key vulnerabilities	Non-qualifying habitats and species upon which the qualifying habitats and/or species depend
	<p>of its Qualifying Features, by maintaining or restoring;</p> <ul style="list-style-type: none"> ■ The extent and distribution of the qualifying natural habitats ■ The structure and function (including typical species) of the qualifying natural habitats, and, ■ The supporting processes on which the qualifying natural habitats rely 	<p><u>Direct impact from 3rd party</u></p> <p>Encroachment by householders onto the SAC dry heath mosaic is frequent on this site. Whilst each encroachment is relatively small, cumulatively the area is significant. Attempts by the landowners or Natural England to tackle these have not worked.</p> <p><u>Air pollution</u></p> <p>Nitrogen deposition exceeds site relevant critical loads. It is unknown if air quality is affecting the SAC habitats. There is a need to determine the level of Nitrogen emissions (if any) from suspected local sources as this could be adding to the critical load.</p>	<p>described in the UK, and consequently knowledge of its ecological characteristics is limited.</p> <p>Shortheath Common is part of a chain of important lowland heathland sites around Bordon, some of which are components of the Wealden Heaths II Special Protection Area (SPA).</p>

Solent and Dorset Coast SPA

A.16 Solent and Dorset Coast SPA - The site is located on the south coast within the English Channel and extends from the Isle of Purbeck in the West to Bognor Regis in the East, following the coastline on either side to the Isle of Wight and into Southampton Water.

Appendix A Attributes of Habitats Sites assessed

A.17 The Solent and Dorset Coast Special Protection Area (SPA) was classified on 16 January 2020. It was classified as described in the departmental brief with boundary amendments, as described in appendix 4 of the consultation report. There are already four Special Protection Areas (SPAs) within the Greater Solent that are designated for breeding terns (the qualifying features of this SPA). These are Chichester & Langstone Harbours SPA (for Sandwich and Little tern), the Solent and Southampton Water SPA (for Common, Sandwich and Little tern) and Pagham Harbour SPA (Little tern). The fourth associated SPA lies within Poole Harbour (Common Tern and Sandwich tern). The new SPA covers the principal sea area that the breeding terns use for foraging during April-September.

Table A.15: Attributes of Solent and Dorset SPA

Site Name (Area, ha)	Qualifying features and conservation objectives	Key vulnerabilities	Non-qualifying habitats and species upon which the qualifying habitats and/or species depend
Solent and Dorset Coast SPA (88,980.55 ha)	<p><i>Qualifying features:</i></p> <p>The site regularly supports more than 1% of the Great Britain breeding populations of the following three species listed in Annex I of the Birds Directive:</p> <ul style="list-style-type: none"> ■ A193(B) <i>Sterna Hirundo</i>, Common tern ■ A191(B) <i>Sterna sandvicensis</i>, Sandwich tern 	Not yet identified for this SPA, however these are likely to be similar to those listed for Solent and Southampton Water SPA, where these relate to the qualifying features of this SPA.	<p>In general, the qualifying bird species of the SPA rely on:</p> <ul style="list-style-type: none"> ■ The site's ecosystem and hydrology as a whole (see list of habitats below). ■ Maintenance of populations of species that they feed on (see list of diets below). ■ Off-site habitat, which provide foraging habitat for these species.

Appendix A Attributes of Habitats Sites assessed

Site Name (Area, ha)	Qualifying features and conservation objectives	Key vulnerabilities	Non-qualifying habitats and species upon which the qualifying habitats and/or species depend
	<ul style="list-style-type: none"> ■ A195(B) <i>Sterna albifrons</i>, Little tern <p><i>Conservation objectives:</i></p> <p>Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the aims of the Wild Birds Directive, by maintaining or restoring:</p> <ul style="list-style-type: none"> ■ The extent and distribution of the habitats of qualifying features; ■ The structure and function of the habitats of qualifying features; ■ The supporting processes on which the habitats of qualifying features rely; ■ The population of each of the qualifying features; and ■ The distribution of the qualifying features within the site. 		<ul style="list-style-type: none"> ■ Open landscape with unobstructed line of sight within nesting, foraging or roosting habitat. <p>There are no Natural England Conservation Objectives: Supplementary Advice for this site. We will further consider the dependencies of the site's qualifying features in the next iteration of the HRA, where information is available.</p>

Appendix A Attributes of Habitats Sites assessed

Solent and Isle of Wight Lagoons SAC

A.18 Solent and Isle of Wight Lagoons SAC - The Solent and Isle of Wight Lagoons SAC on the south coast of England encompasses a series of coastal lagoons, including percolation, isolated and sluiced lagoons. The site includes a number of lagoons in the marshes in the Keyhaven – Pennington area, at Farlington Marshes in Langstone Harbour, behind the sea-wall at Bembridge Harbour and at Gilkicker, near Gosport. The lagoons show a range of salinities and substrates, ranging from soft mud to muddy sand with a high proportion of shingle, which support a diverse fauna.

Table A.16: Attributes of Solent and Isle of Wight Lagoons SAC

Site Name (Area, ha)	Qualifying features and conservation objectives	Key vulnerabilities	Non-qualifying habitats and species upon which the qualifying habitats and/or species depend
Solent and Isle of Wight Lagoons SAC (37.93 ha)	<p><i>Qualifying features:</i></p> <ul style="list-style-type: none"> ■ H1150 Coastal lagoons <p><i>Conservation objectives:</i></p> <p>Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status</p>	<p><u>Hydrological changes</u></p> <p>Sluices around the lagoons, particularly in East Hampshire and the Isle of Wight are in poor condition/potentially not functioning fully. This causes water quality issues and changes in the hydrology of the lagoons. Freshwater streams and land and golf course drainage also threaten the salinity and water quality of the lagoons. Lagoon habitat is being created where tidal sluices are not functioning as originally designed and are letting in sea water</p>	<p>The qualifying habitats of the SAC are reliant a range of coastal factors, including salinity, sedimentation, tide, sea level, turbidity and elevation, which influence the interdependent intertidal, subtidal and terrestrial habitats. These factors influence the complex interdependent intertidal, subtidal and terrestrial habitats present along the coast.</p>

Appendix A Attributes of Habitats Sites assessed

Site Name (Area, ha)	Qualifying features and conservation objectives	Key vulnerabilities	Non-qualifying habitats and species upon which the qualifying habitats and/or species depend
	<p>of its Qualifying Features, by maintaining or restoring;</p> <ul style="list-style-type: none"> ■ the extent and distribution of qualifying natural habitats ■ the structure and function (including typical species) of qualifying natural habitats; and ■ the supporting processes on which qualifying natural habitats rely 	<p>resulting in good quality lagoon habitat in new areas. Inclusion of the lagoons into the designation will enable effective management of this habitat and ensure the designation is scientifically robust</p> <p><u>Inappropriate weed control</u></p> <p>There is a history of algaecide application to the Gilkicker lagoons during the management of the golf course. The algaecide can have detrimental effects on the lagoonal vegetation and associated specialist fauna. Should this practice continue unmanaged this could impact on the SAC.</p> <p><u>Coastal squeeze</u></p> <p>Sea level rise and coastal defence threaten salinity and area of lagoons. Flooding, percolation and infiltration from sea level rise and extreme weather can alter the salinity balance of the lagoons. Flood defences or managed retreat may reduce the area of low-lying fringe habitats. Current compensation provides required habitat for Epoch 1 of the Shoreline Management Plan 2 (SMP2), further investigation is required for Epoch 2 and 3. This project will utilise outputs from Shoreline Management Plans, the Environment Agency's</p>	<p>There are no Natural England Conservation Objectives: Supplementary Advice for this site. We will further consider the dependencies of the site's qualifying features in the next iteration of the HRA.</p>

Appendix A Attributes of Habitats Sites assessed

Site Name (Area, ha)	Qualifying features and conservation objectives	Key vulnerabilities	Non-qualifying habitats and species upon which the qualifying habitats and/or species depend
		<p>Regional Habitat Creation Project and the New Forest District Council/Channel Coastal Observatory's Solent Dynamic Coast Project.</p> <p><u>Invasive species</u></p> <p>Marine Invasive Non-Native Species (INNS) are known to be introduced and subsequently spread through commercial shipping (through the release of ballast water and biofouling on hulls); recreational boating (through biofouling on hulls); aquaculture (through contamination of imported/moved stock or escaped stock), and natural dispersal. If present, INNS pose a threat to SAC lagoon habitats by displacing or preying upon native species, by destroying habitats, or by introducing new diseases or parasites.</p> <p><u>Air pollution</u></p> <p>Nitrogen deposition exceeds the site-relevant critical load for ecosystem protection and hence there is a risk of harmful effects, but the sensitive features are currently considered to be in favourable condition on the site. This requires further investigation.</p>	

Appendix A Attributes of Habitats Sites assessed

Solent Maritime SAC

A.19 Solent Maritime SAC - The Solent is a complex site encompassing a major estuarine system on the south coast of England. The Solent and its inlets are unique in Britain and Europe for their hydrographic regime with double tides, as well as for the complexity of the marine and estuarine habitats present within the area. Sediment habitats within the estuaries include extensive areas of intertidal mudflats, often supporting eelgrass *Zostera* spp. and green algae, saltmarshes and natural shoreline transitions, such as drift line vegetation. The SAC forms part of the Solent & Southampton Water SPA/Ramsar.

A.20 All four species of cordgrass found within the UK are present within the Solent and it is one of only two UK sites with significant amounts of the native small cordgrass *Spartina maritima*. The SAC contains rich intertidal mudflats, saltmarsh, shingle beaches and adjacent coastal habitats, including grazing marsh, reedbeds and damp woodland.

Table A.17: Attributes of Solent Maritime SAC

Site Name (Area, ha)	Qualifying features and conservation objectives	Key vulnerabilities	Non-qualifying habitats and species upon which the qualifying habitats and/or species depend
Solent Maritime SAC (11,243.12 ha)	<p><i>Qualifying features:</i></p> <ul style="list-style-type: none"> ■ H1110 Sandbanks which are slightly covered by sea water all the time 	<p><u>Public Access/Disturbance</u></p> <p>Recreational activities can affect annual vegetation of drift lines (H1210) and the vegetation of stony banks (H1220).</p>	<p>The qualifying habitats of the SAC are reliant a range of coastal factors, including salinity, sedimentation, tide, sea level, turbidity and elevation, which influence the interdependent intertidal, subtidal and terrestrial habitats. These</p>

Appendix A Attributes of Habitats Sites assessed

Site Name (Area, ha)	Qualifying features and conservation objectives	Key vulnerabilities	Non-qualifying habitats and species upon which the qualifying habitats and/or species depend
	<ul style="list-style-type: none"> ■ H1320 <i>Spartina</i> swards (<i>Spartinion maritimae</i>) ■ H1330 Atlantic salt meadows (<i>Glaucopuccinellietalia maritimae</i>) ■ S1016 <i>Vertigo moulinsiana</i>: Desmoulin's whorl snail ■ H1130 Estuaries ■ H1210 Annual vegetation of drift lines ■ H1220 Perennial vegetation of stony banks ■ H1140 Mudflats and sandflats not covered by seawater at low tide ■ H2120 Shifting dunes along the shoreline with <i>Ammophila arenaria</i> ("white dunes") ■ H1150 Coastal lagoons 	<p><u>Coastal squeeze</u></p> <p>Habitats are being lost as they are squeezed between rising sea levels and hard coastal defences that are maintained. There is a direct impact due to loss of the SAC habitats such as saltmarsh. In some areas rising sea levels will result in coastal grasslands being lost to more saline grasslands. The habitats that are lost could be created elsewhere, but there is difficulty in finding suitable areas. The neutral grassland habitats will take a long time to create as mitigation, but intertidal habitat can be created relatively quickly. Current compensation provides required habitat for Epoch 1 of the Shoreline Management Plan 2, further investigation is required for Epoch 2 and 3. This project will utilise outputs from Shoreline Management Plans, the Environment Agency's Regional Habitat Creation Project and the New Forest District Council/Channel Coastal Observatory's Solent Dynamic Coast Project.</p> <p><u>Water pollution</u></p> <p>Water pollution affects a range of habitats at the site through eutrophication and toxicity. Sources include both point source discharges</p>	<p>factors influence the complex interdependent intertidal, subtidal and terrestrial habitats present along the coast.</p> <p>There are no Natural England Conservation Objectives: Supplementary Advice for this site. We will further consider the dependencies of the site's qualifying features in the next iteration of the HRA.</p>

Appendix A Attributes of Habitats Sites assessed

Site Name (Area, ha)	Qualifying features and conservation objectives	Key vulnerabilities	Non-qualifying habitats and species upon which the qualifying habitats and/or species depend
	<ul style="list-style-type: none"> ■ H1310 <i>Salicornia</i> and other annuals colonising mud and sand <p><i>Conservation objectives:</i></p> <p>Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring:</p> <ul style="list-style-type: none"> ■ the extent and distribution of qualifying natural habitats and habitats of qualifying species ■ the structure and function (including typical species) of qualifying natural habitats ■ the structure and function of the habitats of qualifying species ■ the supporting processes on which qualifying natural 	<p>(including flood alleviation / storm discharges) and diffuse water pollution from agriculture / road runoff, as well as historic contamination of marine sediments, primarily from copper and Tributyltin (TBT). A position statement from the Environment Agency and Natural England on water quality in the Solent and housing growth confirms the need to control nitrogen inputs to the Solent from development growth. Environment Agency flood event discharge consents allow untreated waters to be discharged which end up in the SAC and are likely to have a negative impact. There is a threat of spillage from oil transportation and transfer and by the usage by ships and pilotage.</p> <p><u>Changes in species distributions</u></p> <p>Areas of saltmarsh are eroding and decreasing.</p> <p><u>Climate change</u></p> <p>Climate change has resulted in rising sea level causing flooding to habitats.</p> <p><u>Change to site conditions</u></p>	

Appendix A Attributes of Habitats Sites assessed

Site Name (Area, ha)	Qualifying features and conservation objectives	Key vulnerabilities	Non-qualifying habitats and species upon which the qualifying habitats and/or species depend
	<p>habitats and the habitats of qualifying species rely</p> <ul style="list-style-type: none"> ■ the populations of qualifying species; and ■ the distribution of qualifying species within the site. 	<p>There is an increasing loss of saltmarsh in much of the Solent for reasons unknown, and this needs to be investigated.</p> <p><u>Invasive species</u></p> <p>The highest risk pathways through which marine INNS are introduced and then spread have been identified as: commercial shipping (through release of ballast water, and biofouling on hulls); recreational boating (through biofouling on hulls); aquaculture (through contamination of imported or moved stock - or escaped stock in the case of the pacific oyster), and natural dispersal.</p> <p><u>Direct land take from development</u></p> <p>Private sea defences are causing disruption to the natural processes of allowing erosion to move sediments around the SAC.</p> <p><u>Change in land management</u></p> <p>Changes to land management are likely to occur in areas where tidal flaps/sluices are altered and this results in changes to water levels or salinity of that land. Some sluices are failing, which may also result in changes to water levels or salinity of land. Some ditches and drains are neglected and this can cause</p>	

Appendix A Attributes of Habitats Sites assessed

Site Name (Area, ha)	Qualifying features and conservation objectives	Key vulnerabilities	Non-qualifying habitats and species upon which the qualifying habitats and/or species depend
		<p>difficulties in land management, resulting in changes.</p> <p><u>Air Pollution</u></p> <p>Impact of atmospheric nitrogen deposition</p> <p>Nitrogen deposition exceeds site relevant critical loads. Locally observed effects are unknown.</p> <p><u>Hydrological changes</u></p> <p>Titchfield Haven has a high level of water abstraction licences - if all were used then water levels would be too low in the SAC. Percolation of sea water through sea walls is causing saline intrusion into non-saline grassland habitats and changing them.</p> <p><u>Direct impact from 3rd party</u></p> <p>Off-roading is causing damage to some areas of grassland. Private sea defences are causing disruption to the natural movement processes of natural materials along the coast. House boats are unlicensed and have the potential to cause damage to intertidal habitats. Fly grazing is causing issues affecting large areas of Chichester Harbour.</p> <p><u>Extraction: non-living resources</u></p>	

Appendix A Attributes of Habitats Sites assessed

Site Name (Area, ha)	Qualifying features and conservation objectives	Key vulnerabilities	Non-qualifying habitats and species upon which the qualifying habitats and/or species depend
		<p>Shingle extraction for aggregates may have an adverse impact upon intertidal fauna and flora and may affect the movement of coastal sediments that would in turn have an impact upon intertidal habitats.</p> <p><u>Other</u></p> <p>SAC boundary may not cover the extent of all Annex 1 and Annex 2 features and/or supporting habitats.</p>	

Solent and Southampton Water SPA/Ramsar

A.21 Solent and Southampton Water SPA/ Ramsar - The site comprises of estuaries and adjacent coastal habitats including intertidal flats, saline lagoons, shingle beaches, saltmarsh, reedbeds, damp woodland, and grazing marsh. The diversity of habitats support internationally important numbers of wintering waterfowl, important breeding gull and tern populations and an important assemblage of rare invertebrates and plants.

Appendix A Attributes of Habitats Sites assessed

Table A.18: Attributes of Solent and Southampton Water SPA/Ramsar

Site Name (Area, ha)	Qualifying features and conservation objectives	Key vulnerabilities	Non-qualifying habitats and species upon which the qualifying habitats and/or species depend
<p>Solent and Southampton Water SPA (5,401.12 ha)</p>	<p><i>Qualifying features:</i></p> <ul style="list-style-type: none"> ■ A046a(NB) <i>Branta bernicla bernicla</i>: Dark-bellied brent goose ■ A052(NB) <i>Anas crecca</i>: Eurasian teal ■ A156(NB) <i>Limosa limosa islandica</i>: Black-tailed godwit ■ Waterbird assemblage ■ A176(B) <i>Larus melanocephalus</i>: Mediterranean gull ■ A191(B) <i>Sterna sandvicensis</i>: Sandwich tern ■ A192(B) <i>Sterna dougallii</i>: Roseate tern 	<p><u>Public Access/Disturbance</u> Recreational activities can affect annual vegetation of drift lines (H1210) and the vegetation of stony banks (H1220).</p> <p><u>Coastal squeeze</u> Habitats are being lost as they are squeezed between rising sea levels and hard coastal defences that are maintained. There is a direct impact due to loss of the SAC habitats such as saltmarsh. In some areas rising sea levels will result in coastal grasslands being lost to more saline grasslands. The habitats that are lost could be created elsewhere, but there is difficulty in finding suitable areas. The neutral grassland habitats will take a long time to create as mitigation, but intertidal habitat can be created relatively quickly. Current compensation provides required habitat for Epoch 1 of the Shoreline Management Plan 2, further investigation is required for Epoch 2 and 3. This project will utilise outputs from Shoreline Management Plans, the Environment Agency's Regional Habitat Creation Project</p>	<p>In general, the qualifying bird species of the SPA rely on:</p> <ul style="list-style-type: none"> ■ The site's ecosystem and hydrology as a whole (see list of habitats below). ■ Maintenance of populations of species that they feed on (see list of diets below). ■ Off-site habitat, which provide foraging habitat for these species. ■ Open landscape with unobstructed line of sight within nesting, foraging or roosting habitat. <p>There are no Natural England Conservation Objectives: Supplementary Advice for this site. We will further consider the dependencies of the site's qualifying features in the next iteration of the HRA.</p>

Appendix A Attributes of Habitats Sites assessed

Site Name (Area, ha)	Qualifying features and conservation objectives	Key vulnerabilities	Non-qualifying habitats and species upon which the qualifying habitats and/or species depend
	<ul style="list-style-type: none"> ■ A193(B) <i>Sterna hirundo</i>: Common tern ■ A195(B) <i>Sterna albifrons</i>: Little tern ■ A137(NB) <i>Charadrius hiaticula</i>: Ringed plover <p><i>Conservation objectives:</i></p> <p>Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the aims of the Wild Birds Directive, by maintaining or restoring:</p> <ul style="list-style-type: none"> ■ the extent and distribution of the habitats of the qualifying features; ■ the structure and function of the habitats of the qualifying features; ■ the supporting processes on which the habitats of the qualifying features rely; 	<p>and the New Forest District Council/Channel Coastal Observatory's Solent Dynamic Coast Project.</p> <p><u>Fisheries: Commercial marine and estuarine</u></p> <p>Towed gear, hand gathering of shellfish, bait digging and aquaculture are the main fishery activities in this site.</p> <p><u>Water pollution</u></p> <p>Water pollution affects a range of habitats at the site through eutrophication and toxicity. Sources include both point source discharges (including flood alleviation / storm discharges) and diffuse water pollution from agriculture / road runoff, as well as historic contamination of marine sediments, primarily from copper and Tributyltin (TBT). A position statement from the Environment Agency and Natural England on water quality in the Solent and housing growth confirms the need to control nitrogen inputs to the Solent from development growth. Environment Agency flood event discharge consents allow untreated waters to be discharged which end up in the SAC and are likely to have a negative impact. There is a threat of spillage from oil transportation and</p>	

Appendix A Attributes of Habitats Sites assessed

Site Name (Area, ha)	Qualifying features and conservation objectives	Key vulnerabilities	Non-qualifying habitats and species upon which the qualifying habitats and/or species depend
	<ul style="list-style-type: none"> ■ the population of each of the qualifying features; and ■ the distribution of the qualifying features within the site. 	<p>transfer and by the usage by ships and pilotage.</p> <p><u>Changes in species distributions</u></p> <p>Areas of saltmarsh are eroding and decreasing.</p> <p><u>Climate change</u></p> <p>Climate change has resulted in rising sea level causing flooding to habitats.</p> <p><u>Change to site conditions</u></p> <p>There is an increasing loss of saltmarsh in much of the Solent for reasons unknown, and this needs to be investigated.</p> <p><u>Invasive species</u></p> <p>The highest risk pathways through which marine INNS are introduced and then spread have been identified as: commercial shipping (through release of ballast water, and biofouling on hulls); recreational boating (through biofouling on hulls); aquaculture (through contamination of imported or moved stock - or escaped stock in the case of the pacific oyster), and natural dispersal.</p> <p><u>Biological Resource Use</u></p>	

Appendix A Attributes of Habitats Sites assessed

Site Name (Area, ha)	Qualifying features and conservation objectives	Key vulnerabilities	Non-qualifying habitats and species upon which the qualifying habitats and/or species depend
		<p>Gull egg collecting occurs in some places, and wildfowling occurs in several places. These activities are likely to be disturbing to breeding and wintering birds even though they are licenced/consented at the moment.</p> <p><u>Change in land management</u></p> <p>Changes to land management are likely to occur in areas where tidal flaps/sluices are altered and this results in changes to water levels or salinity of that land. Some sluices are failing, which may also result in changes to water levels or salinity of land. Some ditches and drains are neglected and this can cause difficulties in land management, resulting in changes.</p>	
<p>Solent and Southampton Water Ramsar (5,346.44 ha)</p>	<p><i>Qualifying features:</i> <u>Ramsar Criterion 1</u> The site is one of the few major sheltered channels between a substantial island and mainland in European waters, exhibiting an unusual strong double tidal flow and has long periods of slack water at high and low tide. It includes many wetland</p>	<p><u>Erosion</u> Coastal Defence Strategies, regulation of private coastal defences, shoreline management plans.</p>	<p>In general, the qualifying bird species of the Ramsar site rely on:</p> <ul style="list-style-type: none"> ■ The site's ecosystem and hydrology as a whole (see list of habitats below). ■ Maintenance of populations of species that they feed on (see list of diets below).

Appendix A Attributes of Habitats Sites assessed

Site Name (Area, ha)	Qualifying features and conservation objectives	Key vulnerabilities	Non-qualifying habitats and species upon which the qualifying habitats and/or species depend
	<p>habitats characteristic of the biogeographic region: saline lagoons, saltmarshes, estuaries, intertidal flats, shallow coastal waters, grazing marshes, reedbeds, coastal woodland and rocky boulder reefs.</p> <p><u>Ramsar Criterion 2</u></p> <p>The site supports an important assemblage of rare plants and invertebrates. At least 33 British Red Data Book invertebrates and at least eight British Red Data Book plants are represented on site.</p> <p><u>Ramsar Criterion 5</u></p> <p>Assemblages of international importance</p> <ul style="list-style-type: none"> ■ Species with peak counts in winter: 51343 waterfowl (5 year peak mean 1998/99-2002/2003) <p><u>Ramsar Criterion 6</u></p>		<ul style="list-style-type: none"> ■ Off-site habitat, which provide foraging habitat for these species. ■ Open landscape with unobstructed line of sight within nesting, foraging or roosting habitat.

Appendix A Attributes of Habitats Sites assessed

Site Name (Area, ha)	Qualifying features and conservation objectives	Key vulnerabilities	Non-qualifying habitats and species upon which the qualifying habitats and/or species depend
	<p>Species/populations occurring at levels of international importance.</p> <p>Qualifying Species/populations (as identified at designation):</p> <ul style="list-style-type: none"> ■ Species with peak counts in spring/autumn: Ringed plover <i>Charadrius hiaticula</i> ■ Species with peak counts in winter: Dark-bellied brent goose <i>Branta bernicla bernicla</i>, Eurasian teal <i>Anas crecca</i>, Black-tailed godwit <i>Limosa limosa islandica</i> 		

Wealden Heaths Phase 2 SPA

A.22 This group of heathland sites incorporates Woolmer Forest SAC (see below). The complex includes important military training land as well as popular recreational areas.

Appendix A Attributes of Habitats Sites assessed

Table A.19: Attributes of Wealden Heaths Phase 2 SPA

Site Name (Area, ha)	Qualifying features and conservation objectives	Key vulnerabilities	Non-qualifying habitats and species upon which the qualifying habitats and/or species depend
<p>Wealden Heaths Phase 2 (2,053.83 ha)</p>	<p><i>Qualifying features:</i></p> <ul style="list-style-type: none"> ■ A224 <i>Caprimulgus europaeus</i>; European nightjar (Breeding) ■ A246 <i>Lullula arborea</i>; Woodlark (Breeding) ■ A302 <i>Sylvia undata</i>; Dartford warbler (Breeding) <p><i>Conservation objectives:</i></p> <p>Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the aims of the Wild Birds Directive, by maintaining or restoring;</p> <ul style="list-style-type: none"> ■ The extent and distribution of the habitats of the qualifying features 	<p><u>Changes in land management</u></p> <p>Parts of the complex have suffered from management neglect in the past and there are ongoing management issues. Common issues are lack of structural diversity, bracken encroachment and scrub development. Grazing is not practical in parts of the complex but viable alternative means of management to meet objectives are not yet in place. Grazing may also be constrained in parts because of resistance to fencing of common land</p> <p><u>Feature location / extent / condition unknown</u></p> <p>There is only partial coverage of the SPA for monitoring of Annex 1 birds and those areas are reliant on volunteer recorders; there is a need for a more strategic, long-term approach to monitoring.</p> <p><u>Public access, disturbance</u></p> <p>Visitor access provision is not currently coordinated between sites or managed so as to reduce impacts on ground-nesting birds.</p>	<p>Natural England's Conservation Objectives: Supplementary Advice for this site [See reference 74] identify the following dependencies:</p> <p>The underlying geology is composed of Cretaceous sandstones and ironstone, which give rise to predominantly acid soils. These are often sandy and free-draining but clay and silt layers produce poorly drained areas where streams and wetland habitats can be found. The landscape is largely rural and is characterised by a prominent escarpment with broad, steep-sided valleys and low, rounded hills with a mixture of heaths, oak and birch woodland, mature conifer woodlands, pastures and wetlands.</p> <p>The component parts of the SPA have extensive areas of lowland heath which is similar in character to the nearby heathland complexes at Thursley,</p>

Appendix A Attributes of Habitats Sites assessed

Site Name (Area, ha)	Qualifying features and conservation objectives	Key vulnerabilities	Non-qualifying habitats and species upon which the qualifying habitats and/or species depend
	<ul style="list-style-type: none"> ■ The structure and function of the habitats of the qualifying features ■ The supporting processes on which the habitats of the qualifying features rely ■ The population of each of the qualifying features, and, ■ The distribution of the qualifying features within the site. 	<p><u>Military</u></p> <p>There is currently poor coordination between management for military training purposes and nature conservation management at Woolmer Forest and scope for significant gains with closer working between partners. The production of an integrated management plan is needed.</p> <p><u>Wildfire / arson</u></p> <p>Wildfire is a natural hazard identified in the National Risk Assessment / Register and Community Risk Registers. Wildfires in the south of England are likely to increase as identified in the Climate Change Risk Assessment (CCRA). Wildfires can be a serious risk to human life, residential and commercial property and critical national infrastructures, as well as being a high risk threat to reptile populations, invertebrates and plant diversity resulting in significant habitat loss for Annex 1 birds. Open heath is the predominant risk (dry and wet heath, peat habitats) as well as young coniferous woodland. Impacts can last for many years for example by the wholesale removal of all gorse and heather seedbank.</p>	<p>Hankley and Frensham Commons SPA and the Thames Basin Heaths SPA.</p> <p>Dartford warbler are strongly associated with lowland heaths with extensive patches of mature gorse with an abundance of favoured invertebrate prey items such as spiders. However, they will also nest in areas of mature heather, clearings in forestry plantations and patches of bracken.</p> <p>Nightjars are migratory, spending the winter months feeding in parts of Africa. The species is considered to be vulnerable to the effects of long-term climate change on drought-prone areas of Africa and desert expansion. Nightjar regularly utilise areas across the SPA for nesting and feeding. Favoured areas of habitat are areas of heath with high structural diversity including bare patches or short vegetation, but they will also utilise clearings in woods, broad rides in conifer plantations and sparsely vegetated areas.</p> <p>The woodlark has benefited from rotational management of conifer</p>

Appendix A Attributes of Habitats Sites assessed

Site Name (Area, ha)	Qualifying features and conservation objectives	Key vulnerabilities	Non-qualifying habitats and species upon which the qualifying habitats and/or species depend
			<p>plantations where it can utilise recently felled areas and areas of young regrowth for nesting. Woodlarks favour areas of short vegetation or sparsely-vegetated areas on heaths with scattered trees for use as song-posts. They feed on seeds and small invertebrates. Numbers of woodlarks tend to fluctuate over time in relation to successional development of heaths and plantations, with large numbers often present following heath fires or tree clearance.</p> <p>Nightjar and Woodlark favour large areas of open terrain, largely free of obstructions, in and around its nesting, roosting and feeding areas. They seek out places where there is an unobstructed line of sight in nesting, feeding or roosting habitat so that they are able to detect approaching predators and to ensure visibility of displaying behaviour. An open landscape may also be required to facilitate movement of birds between the SPA and any off-site supporting habitat ('functionally-linked land'). Woodlark will often utilise areas</p>

Appendix A Attributes of Habitats Sites assessed

Site Name (Area, ha)	Qualifying features and conservation objectives	Key vulnerabilities	Non-qualifying habitats and species upon which the qualifying habitats and/or species depend
			<p>adjacent to heathland for feeding, including areas of short grassland, stubble fields or weedy margins of arable fields, golf courses and bare areas in quarry sites. Such areas may be of critical importance in sustaining populations, particularly during winter months. An open landscape may also facilitate movement of birds between the SPA and any off-site supporting habitat.</p> <p>Although they will utilise enclosed features such as clearings in conifer plantations, Dartford warbler favour large areas of open terrain, largely free of obstructions, in and around nesting, roosting and feeding areas. They will benefit from availability of an unobstructed line of sight within nesting, feeding or roosting to enable birds to detect approaching predators, or to ensure visibility of displaying behaviour. It will also be beneficial to maintain and restore habitat links between the SPA and off-site supporting habitat, or to alternative areas of nesting habitat.</p>

Appendix A Attributes of Habitats Sites assessed

Woolmer Forest SAC

A.23 This site is part of the Wealden Heaths Phase 2 SPA, as above.

Table A.20: Attributes of Woolmer Forest SAC

Site Name (Area, ha)	Qualifying features and conservation objectives	Key vulnerabilities	Non-qualifying habitats and species upon which the qualifying habitats and/or species depend
Woolmer Forest SAC (666.68 ha)	<p><i>Qualifying features:</i></p> <ul style="list-style-type: none"> ■ H3160. Natural dystrophic lakes and ponds; Acid peat-stained lakes and ponds ■ H4010. Northern Atlantic wet heaths with <i>Erica tetralix</i>; Wet heathland with cross-leaved heath ■ H4030. European dry heaths ■ H7140. Transition mires and quaking bogs; Very wet mires often identified 	<p><u>Changes in land management</u></p> <p>Parts of the complex have suffered from management neglect in the past and there are ongoing management issues. Common issues are lack of structural diversity, bracken encroachment and scrub development. Grazing is not practical in parts of the complex but viable alternative means of management to meet objectives are not yet in place. Grazing may also be constrained in parts because of resistance to fencing of common land</p> <p><u>Invasive species</u></p> <p>Ponds and wetlands at Woolmer Forest are dominated by <i>Crassula helmsii</i>, adversely affecting habitat quality. Control is particularly</p>	<p>Natural England's Conservation Objectives: Supplementary Advice for this site [See reference 75] identify the following dependencies:</p> <p>Woolmer Forest SAC is a large expanse of lowland heathland with associated habitats including valley mire, oligotrophic ponds, wet woodland, secondary woodland, acid grassland, scrub and conifer plantations. Situated in the western Weald, near Bordon in north Hampshire, the site is underlain by both Folkestone and Sandgate beds. The qualifying habitats occupy a range of niches, related to their</p>

Appendix A Attributes of Habitats Sites assessed

Site Name (Area, ha)	Qualifying features and conservation objectives	Key vulnerabilities	Non-qualifying habitats and species upon which the qualifying habitats and/or species depend
	<p>by an unstable `quaking` surface</p> <ul style="list-style-type: none"> ■ H7150. Depressions on peat substrates of the <i>Rhynchosporion</i> <p><i>Conservation objectives:</i></p> <p>Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring;</p> <ul style="list-style-type: none"> ■ The extent and distribution of the qualifying natural habitats ■ The structure and function (including typical species) of the qualifying natural habitats, and, ■ The supporting processes on which the qualifying natural habitats rely 	<p>difficult because of presence of rare amphibians. It is currently unclear to what extent the presence of <i>Crassula</i> is adversely affecting the dystrophic lake interest feature and indeed whether effective control is feasible.</p> <p><u>Hydrological changes</u></p> <p>Parts of the wet heath and mire areas at Woolmer Forest are affected by the presence of drainage ditches. The full impact of these has not yet been assessed but it is likely that they are having adverse impacts.</p> <p><u>Feature location/ extent / condition unknown</u></p> <p>Work is needed by Natural England to clarify the conservation objectives for designated features at Woolmer Forest, to improve the evidence base on the interest features, to identify where these occur, and to provide greater linkage between objectives and military training use.</p> <p><u>Military</u></p> <p>There is currently poor coordination between management for military training purposes and nature conservation management at Woolmer Forest and scope for significant gains with closer working between partners. The production of an integrated management plan is needed.</p>	<p>position in the valleys and presence of water.</p> <p>Changes in surrounding land-use may adversely (directly/indirectly) affect the functioning of transition mires and quaking bogs and its component species. This supporting habitat may be critical to prevent/reduce/absorb damaging impacts from adjacent land uses e.g. pesticide drift, nutrient enrichment.</p>

Appendix A Attributes of Habitats Sites assessed

Site Name (Area, ha)	Qualifying features and conservation objectives	Key vulnerabilities	Non-qualifying habitats and species upon which the qualifying habitats and/or species depend
		<p><u>Air pollution</u></p> <p>Nitrogen deposition exceeds the site-relevant critical load for ecosystem protection. The aerial pollution may be promoting changes in species composition of mires towards Molinia and sedge dominated systems rather than Sphagnum dominated; ponds may be losing characteristic aquatic plant assemblage partly because of increasing nutrient status. This most likely to be an issue at Woolmer Forest but could be a chronic problem at all sites in the complex.</p> <p><u>Wildfire / arson</u></p> <p>Wildfire is a natural hazard identified in the National Risk Assessment / Register and Community Risk Registers. Wildfires in the south of England are likely to increase as identified in the Climate Change Risk Assessment (CCRA). Wildfires can be a serious risk to human life, residential and commercial property and critical national infrastructures, as well as being a high risk threat to reptile populations, inverts and plant diversity resulting in significant habitat loss for Annex 1 birds. Open heath is the predominant risk (dry and wet heath, peat habitats) as well as young coniferous woodland. Impacts can last for</p>	

Appendix A Attributes of Habitats Sites assessed

Site Name (Area, ha)	Qualifying features and conservation objectives	Key vulnerabilities	Non-qualifying habitats and species upon which the qualifying habitats and/or species depend
		many years for example by the wholesale removal of all gorse and heather seedbank.	

Appendix B

HRA Screening

Policies

B.1 Rows with no colour indicate no impact pathway; green indicates no likely significant effects (e.g. there is an impact pathway but scale of change is not significant); orange indicates that likely significant effects cannot be ruled out (Appropriate Assessment is required); grey indicates safeguards/mitigation provided within policies.

Table B.1: Screening matrix - policies

Policy	Likely activities to result as a consequence of the proposal	Likely effect if proposal is implemented	Can likely significant effects be ruled out? (If not, then Appropriate Assessment is required)
Chapter: Introduction			
Policy SP1: Vision and objectives	None – this policy will not result in new development.	None	Yes
Policy SP2: Spatial strategy and development principles	None – this policy sets out the overall spatial strategy for the Plan area but will not itself result in development.	None	Yes Note that the quantum of housing provision referred to in this policy is assessed in relation to Policy H1.

Appendix B HRA Screening

Policy	Likely activities to result as a consequence of the proposal	Likely effect if proposal is implemented	Can likely significant effects be ruled out? (If not, then Appropriate Assessment is required)
Policy SP3: Development in the countryside	Agricultural, employment, tourism and/or residential development Changes in vehicle traffic Changes in water use Changes in land use	Air pollution Changes in water quality / quantity Non-physical disturbance Physical damage / loss Fragmentation / severance Recreation pressure	No Note that development associated within allocated sites is assessed in relation to those allocations.
Chapter: Carbon Neutrality and Low Carbon Infrastructure			
Policy CN1: Mitigating and adapting to climate change	None – this policy will not result in new development.	None	Yes This policy requires development (excluding household extensions) to demonstrate that water use management and conservation has been fully considered; and what measures have been taken to reduce the impact of flooding e.g. through the use of SuDS. This may contribute to mitigation for effects relating to changes in water quality / quantity.
Policy CN2: Energy Hierarchy	None – this policy will not result in new development.	None	Yes
Policy CN3: Energy efficiency standards to	None – this policy will not result in new development	None	Yes This policy requires non-residential developments to achieve BREEAM excellent. This standard incorporates

Appendix B HRA Screening

Policy	Likely activities to result as a consequence of the proposal	Likely effect if proposal is implemented	Can likely significant effects be ruled out? (If not, then Appropriate Assessment is required)
reduce carbon emissions			water efficiency standards and therefore could contribute to mitigation for effects relating to water quality / quantity.
Policy CN4: Water efficiency standards in new developments	None – this policy will not result in new development.	None	Yes This policy requires residential developments to achieve a water efficiency standard of 100 litres/person/day; and refurbishments or other non domestic development to mean BREEAM water efficiency credits (no rating specified). This will contribute to mitigation for effects relating to changes in water quality / quantity.
Policy CN5: Renewable and low carbon energy schemes	Renewable energy development (mainly solar) Changes in vehicle traffic Increase in lighting/glare	Air pollution Changes in water quality / quantity Physical damage and loss of habitat Non-physical disturbance	No
Policy CN6: Micro energy generation schemes	Micro-energy development (e.g. solar, ground/air source heat pumps, small scale hydroelectric schemes or biomass)	Air pollution Changes in water quality / quantity Physical damage or loss of habitat Non-physical disturbance	No
Policy CN7: Energy storage	Energy storage development	Changes in water quality / quantity	No

Appendix B HRA Screening

Policy	Likely activities to result as a consequence of the proposal	Likely effect if proposal is implemented	Can likely significant effects be ruled out? (If not, then Appropriate Assessment is required)
		Physical damage or loss of habitat Non-physical disturbance	
Policy CN8: Embodied carbon	None – this policy sets out design principles for considering whole life carbon and will not result in new development.	None	Yes
Chapter: High Quality Design and Living Well			
Policy D1: High quality, well designed and inclusive places	None – this policy sets out design principles for new development but will not itself result in new development.	None	Yes
Policy D2: Design principles for Winchester town	None – this policy sets out design principles for new development but will not itself result in new development.	None	Yes This policy states that development should consider “the potential impacts on the River Itchen SSSI and SAC”, which will contribute to general protection of the SAC.
Policy D3: Design principles for the South Hampshire urban areas	None – this policy sets out design principles for new development but will not itself result in new development.	None	Yes
Policy D4: Design principles	None – this policy sets out design principles for new development	None	Yes

Appendix B HRA Screening

Policy	Likely activities to result as a consequence of the proposal	Likely effect if proposal is implemented	Can likely significant effects be ruled out? (If not, then Appropriate Assessment is required)
for market towns and rural villages	but will not itself result in new development.		
Policy D5: Masterplans	None – this policy sets out design principles for new development but will not itself result in new development.	None	<p>Yes</p> <p>This policy requires ‘significant development on sites occupied by major landowners/users’ to achieve the following, which will contribute to mitigation:</p> <p>vi. Reduce the need for car use and encourage sustainable modes of travel, and active travel infrastructure and facilities (air pollution).</p> <p>viii. Include measures to mitigate the traffic impacts of the proposed development on the strategic and local road networks (air pollution).</p> <p>xii. Incorporate a green infrastructure strategy, providing an integrated network of green spaces, taking advantage of opportunities for off-site links to the countryside, South Downs National Park where applicable and wider green network, and where necessary providing alternative recreational space to mitigate potential environmental impacts of development (recreation pressure).</p> <p>xv. Demonstrate a good understanding and respect for the natural environment, its heritage assets and their setting both within the site and in the wider locality, whether designated or not, and include details of how the natural environment and heritage assets will be preserved, conserved and enhanced (general protection).</p>

Appendix B HRA Screening

Policy	Likely activities to result as a consequence of the proposal	Likely effect if proposal is implemented	Can likely significant effects be ruled out? (If not, then Appropriate Assessment is required)
Policy D6: Previously developed land and making best use of land	None – this policy will not result in new development.	None	Yes
Policy D7: Development standards	None – this policy will not result in new development.	None	Yes The policy requires developments to comply with environmental standards and that where there is potential for adverse impacts, to occur from odour, light, air quality, ground or surface water pollution, or contaminated land, then assessments should be carried out.
Policy D8: Contaminated land	None – this policy will not result in new development.	None	Yes This policy states that development on land affected by contamination will only be permitted where there are no unacceptable impacts on groundwater or surface water; and appropriate mitigation is set out.
Policy D10: Shopfronts	None – this policy sets out design principles for new shopfronts but will not itself result in new development.	None	Yes
Policy D11: Signage	None – this policy will not result in new development.	None	Yes
Chapter: Sustainable Transport and Active Travel			

Appendix B HRA Screening

Policy	Likely activities to result as a consequence of the proposal	Likely effect if proposal is implemented	Can likely significant effects be ruled out? (If not, then Appropriate Assessment is required)
Policy T1: Sustainable and active transport and travel	None – this policy will not result in new development.	None	Yes This policy requires developments to undertake a transport assessment that sets out how it will minimise the need to travel by private car, e.g. with new active travel routes. This policy may contribute to mitigation for air pollution effects.
Policy T2: Parking for new developments	None – this policy will not result in new development.	None	Yes This policy requires developments to prioritise sustainable travel when considering parking. This policy may contribute to mitigation for air pollution effects.
Policy T3: Enabling sustainable modes of transport and the design and layout of parking for new developments	None – this policy will not result in new development.	None	Yes This policy requires developments to prioritise sustainable travel when considering parking. This policy may contribute to mitigation for air pollution effects.
Policy T4: Access for new developments	None – this policy will not result in new development.	None	Yes This policy requires developments to prioritise the needs of walking, wheeling and cycling when considering access. This policy may contribute to mitigation for air pollution effects.
Chapter: Biodiversity and the Natural Environment			

Appendix B HRA Screening

Policy	Likely activities to result as a consequence of the proposal	Likely effect if proposal is implemented	Can likely significant effects be ruled out? (If not, then Appropriate Assessment is required)
Policy NE1: Protecting and enhancing biodiversity and the natural environment in the district	None – this policy will not result in new development.	None	<p>Yes</p> <p>This policy states that development will only be permitted where it protects and enhances the natural environment and biodiversity. It provides general protection for Habitats Sites, stating that development must demonstrate that it:</p> <p>“i. Avoids significant harm to the natural environment, biodiversity and geodiversity or can adequately mitigate any harm arising and can clearly demonstrate that there will be no adverse impact on the conservation status of key species, internationally protected sites, nationally protected designated sties, or locally designated sites and there will be no net loss or deterioration of a key habitat type including irreplaceable habitats and the integrity of linkages between designated sites and key habitats” and</p> <p>“v. Normally any mitigation, compensation and enhancement measures are required to be delivered on-site, unless special circumstances dictate that off-site compensation is more appropriate. A financial contribution - in lieu of on-site mitigation - will only be considered in very exceptional circumstances and where it is demonstrated that the proposed mitigation is deliverable and effective; and</p> <p>vi. Protects, conserves and enhances the air and water environments in the district.”</p>
Policy NE2: Major	None – this policy sets out development principles but will	None	Yes

Appendix B HRA Screening

Policy	Likely activities to result as a consequence of the proposal	Likely effect if proposal is implemented	Can likely significant effects be ruled out? (If not, then Appropriate Assessment is required)
commercial, educational and MOD establishments in the countryside	not itself result in new development.		
Policy NE3: Open space, sport and recreation	None – this policy will not result in new development.	None	<p>Yes</p> <p>This policy sets out standards for the provision of new open space, which may help to reduce recreation pressure effects.</p>
Policy NE4: Green and blue infrastructure	None – this policy will not result in new development.	None	<p>Yes</p> <p>This policy sets out principles for new green infrastructure, which may help to reduce recreation pressure effects.</p>
Policy NE5: Biodiversity	None – this policy will not result in new development.	None	<p>Yes</p> <p>This policy requires developments to demonstrate how biodiversity will be retained, protected and enhanced, which contributes to general protection of Habitats Sites.</p> <p>The supporting text explains: “The HRA identifies that there may be impacts from development in areas outside of the Habitats Site boundaries that may occur where habitat contributes towards maintaining the interest feature for which the site is designated. This is known as ‘functionally linked land (FLL)’. The FLL maintains and restores a protected population such as birds and bats at the favourable conservation status. Non-physical disturbance such noise and vibration during the construction of new</p>

Appendix B HRA Screening

Policy	Likely activities to result as a consequence of the proposal	Likely effect if proposal is implemented	Can likely significant effects be ruled out? (If not, then Appropriate Assessment is required)
			<p>housing and artificial light at night can cause adverse effects on protected populations therefore it must be demonstrated that these are avoided where possible.” And the policy states:” iv. New development will be required to avoid adverse impacts, or if unavoidable ensure that impacts are appropriately mitigated, including avoiding non-physical disturbance to functionally linked land, with compensation measures used only as a last resort. Development proposals will only be supported if the benefits of the development clearly outweigh the harm to the habitat and/or species”.</p> <p>This policy therefore provides additional safeguards against loss of functionally linked land or disturbance of the species using it.</p>
Policy NE6: Flooding and flood risk	None – this policy will not result in new development.	None	<p>Yes</p> <p>This policy encourages the use of SuDS and requires developments to ensure that “water supply, surface water drainage and wastewater infrastructure to service new development are provided and connect to the nearest point of adequate capacity where feasible“. This will contribute to mitigation for water quality/quantity effects.</p>
Policy NE7: Settlement gaps	None – this policy will not result in new development.	None	Yes

Appendix B HRA Screening

Policy	Likely activities to result as a consequence of the proposal	Likely effect if proposal is implemented	Can likely significant effects be ruled out? (If not, then Appropriate Assessment is required)
Policy NE8: South Downs National Park	None – this policy sets out development principles but will not itself result in new development.	None	Yes The policy requires development in close proximity to the National Park to follow dark skies guidance on lighting, which may reduce and mitigate light (non-physical disturbance) at sites within or near the National Park (i.e. River Itchen SAC).
Policy NE9: Landscape character	None – this policy will not result in new development.	None	Yes
Policy NE10: Protecting open areas	None – this policy will not result in new development.	None	Yes
Policy NE11: Open space provision for new developments	None – this policy will not result in new development.	None	Yes This policy sets out standards for the provision of new open space, which may help to reduce recreation pressure effects
Policy NE12: Equestrian development	Equestrian development Changes in vehicle traffic Changes of land use	Air pollution Changes in water quality / quantity Non-physical disturbance Physical damage / loss Fragmentation / severance	No

Appendix B HRA Screening

Policy	Likely activities to result as a consequence of the proposal	Likely effect if proposal is implemented	Can likely significant effects be ruled out? (If not, then Appropriate Assessment is required)
		Recreation pressure	
Policy NE13: Leisure and recreation in the countryside	Leisure facilities Changes in vehicle traffic Changes in water quality / quantity Changes of land use	Air pollution Changes in water quality / quantity Non-physical disturbance Physical damage / loss Fragmentation / severance Recreation pressure	No
Policy NE14: Rural character	None - this policy sets out development principles but will not itself result in new development.	None	Yes States that development in rural areas must not have an unacceptable impact e.g. from lighting or noise. Developments must demonstrate that opportunities to reduce light pollution have followed mitigation hierarchy. This will contribute to mitigation for non-physical disturbance.
Policy NE15: Special trees, important hedgerows and ancient woodlands	None – this policy will not result in new development.	None	Yes This policy sets out protection measures for trees and woodlands, which may contribute to mitigation for loss of or damage to habitats.

Appendix B HRA Screening

Policy	Likely activities to result as a consequence of the proposal	Likely effect if proposal is implemented	Can likely significant effects be ruled out? (If not, then Appropriate Assessment is required)
<p>Policy NE16: Nutrient Neutrality water quality effects on the Special Protection Areas (SPAs), Special Areas of Conservation (SACs) and Ramsar sites of the Solent and the River Itchen.</p>	<p>None – this policy will not result in new development.</p>	<p>None</p>	<p>Yes</p> <p>This policy states that, for new overnight development: “Planning permission will only be granted where the integrity of nationally protected sites is not adversely affected by new development. When making planning decisions which may affect these sites the requirements of the Habitat Regulations will be met including the carrying out appropriate assessments.” And</p> <p>“When assessing applications for development the impacts of increased nutrients from these sites will be considered. Permission will be granted only where effects can either be excluded or, if that is not possible, mitigation by nutrient neutrality is achieved following the guidance provided by Natural England thereby avoiding any adverse impact upon the quality of the water environment of the sites.”</p>
<p>Policy NE17: Rivers, watercourses and their settings</p>	<p>None – this policy will not result in new development.</p>	<p>None</p>	<p>Yes</p> <p>This policy states that developments will be permitted where they conserve and enhance water quality / quantity; and the ability of ground water and surface water features to function.</p> <p>The policy also specifically refers to risks to functionally linked land: “Development proposals that affect rivers, watercourses or their settings will be permitted where they conserve and enhance the following; i. Water quality and quantity, and help achieve requirements of the European Water Framework Directive, or its replacement, in the case</p>

Appendix B HRA Screening

Policy	Likely activities to result as a consequence of the proposal	Likely effect if proposal is implemented	Can likely significant effects be ruled out? (If not, then Appropriate Assessment is required)
			of the River Itchen and Upper Hamble, the Solent Wader and Brent Goose Strategy (SWBGS).”
Chapter: The Historic Environment			
Policy HE1: Historic environment	None – this policy will not result in new development.	None	Yes
Policy HE2: All heritage assets (both designated & non-designated)	None – this policy will not result in new development.	None	Yes
Policy HE3: Designated heritage assets	None – this policy will not result in new development.	None	Yes
Policy HE4: Non-designated heritage assets	None – this policy will not result in new development.	None	Yes
Policy HE5: Mitigation and avoiding the loss of heritage assets (designated and	None – this policy will not result in new development.	None	Yes

Appendix B HRA Screening

Policy	Likely activities to result as a consequence of the proposal	Likely effect if proposal is implemented	Can likely significant effects be ruled out? (If not, then Appropriate Assessment is required)
non-designated heritage assets)			
Policy HE6: Scheduled monuments and nationally important non-designated assets	None – this policy will not result in new development.	None	Yes
Policy HE7: Non-designated archaeological assets	None – this policy will not result in new development.	None	Yes
Policy HE8: Applications affecting listed buildings	None - this policy sets out development principles but will not itself result in new development.	None	Yes
Policy HE9: Change of use to listed buildings	None - this policy sets out development principles but will not itself result in new development.	None	Yes
Policy HE10: Development in Conservation Areas	None - this policy sets out development principles but will not itself result in new development.	None	Yes

Appendix B HRA Screening

Policy	Likely activities to result as a consequence of the proposal	Likely effect if proposal is implemented	Can likely significant effects be ruled out? (If not, then Appropriate Assessment is required)
Policy HE11: Demolition in Conservation Areas	None - this policy sets out development principles but will not itself result in new development.	None	Yes
Policy HE12: Registered Historic Parks and Gardens	None - this policy sets out development principles but will not itself result in new development.	None	Yes
Policy HE13: Non-designated historic rural and industrial heritage assets	None - this policy sets out development principles but will not itself result in new development.	None	Yes
Policy HE14: Improvements or alterations to improve the energy efficiency of historic assets	None - this policy sets out development principles but will not itself result in new development.	None	Yes
Chapter: Homes for All			
Policy H1: Housing provision	Residential development Changes in vehicle traffic Changes in water use	Air pollution Changes in water quality / quantity	No Note that the distribution of these homes is detailed in Policy H3, but assessed in relation to Policy H1.

Appendix B HRA Screening

Policy	Likely activities to result as a consequence of the proposal	Likely effect if proposal is implemented	Can likely significant effects be ruled out? (If not, then Appropriate Assessment is required)
(c.15,465 homes over the Plan period: Winchester town: 5,640 homes; South Hampshire urban areas: 5,650 homes; Market towns and rural areas: 3,825 homes, of which 350 in SDNP Local Plan)	Changes in land use	Non-physical disturbance Physical damage / loss Fragmentation / severance Recreation pressure	
Policy H2: Housing phasing and supply	None – this policy sets out the phased delivery of the housing in Policy H1, but will not itself result in new development.	None	Yes
Policy H3: Spatial housing distribution	None – this policy sets out further details of the distribution of housing in Policy H1, but will not itself result in new development.	None	Yes
Policy H4: Development	Residential development Changes in vehicle traffic	Air pollution	No

Appendix B HRA Screening

Policy	Likely activities to result as a consequence of the proposal	Likely effect if proposal is implemented	Can likely significant effects be ruled out? (If not, then Appropriate Assessment is required)
within settlements	Changes in water use Changes in land use	Changes in water quality / quantity Non-physical disturbance Physical damage / loss Fragmentation / severance Recreation pressure	Note that this policy permits development within identified groups of settlements, outside of specific site allocations and areas identified in Policy H1.
Policy H5: Meeting housing needs	None - this policy sets out development principles but will not itself result in new development.	None	Yes
Policy H6: Affordable housing	None - this policy sets out development principles but will not itself result in new development.	None	Yes
Policy H7: Affordable housing exception sites to meet local needs	None - this policy sets out development principles but will not itself result in new development.	None	Yes
Policy H8: Small dwellings in the countryside	Small-scale residential development Changes in vehicle traffic	Air pollution Changes in water quality / quantity	Yes There is a potential impact pathway, but the development would be small scale and effects therefore not significant.

Appendix B HRA Screening

Policy	Likely activities to result as a consequence of the proposal	Likely effect if proposal is implemented	Can likely significant effects be ruled out? (If not, then Appropriate Assessment is required)
	Changes in water use	Recreation pressure	
Policy H9: Purpose built student accommodation	Student residential development Changes in vehicle traffic Changes in water use Changes in land use	Air pollution Changes in water quality / quantity Non-physical disturbance Physical damage / loss Fragmentation / severance Recreation pressure	No
Policy H10: Houses in Multiple Occupation (HMOs)	Increase in the number of residents within a property Changes in vehicle traffic Changes in water use	Air pollution Changes in water quality / quantity Recreation pressure	Yes There is a potential impact pathway, but the development would be small scale and effects therefore not significant.
Policy H11: Housing for essential rural workers	Small-scale residential development Changes in vehicle traffic Changes in water use	Air pollution Changes in water quality / quantity Recreation pressure	Yes There is a potential impact pathway, but the development would be small scale and effects therefore not significant.
Policy H12: Provision for Gypsies, Travellers and	Residential development Changes in vehicle traffic Changes in water use	Air pollution Changes in water quality / quantity Non-physical disturbance	No

Appendix B HRA Screening

Policy	Likely activities to result as a consequence of the proposal	Likely effect if proposal is implemented	Can likely significant effects be ruled out? (If not, then Appropriate Assessment is required)
Travelling Showpeople (68 additional pitches provided via policies H14 & H15; plus two allocated sites: H16,, H18)	Changes in land use	Physical damage / loss Fragmentation / severance Recreation pressure	
Policy H13: Safeguarding Traveller sites	None - this policy will not result in new development.	None	Yes
Policy H14: Authorised Traveller site intensification	None - this policy sets out development principles but will not itself result in new development.	None	Yes Note that the development that could come forward in relation to this policy is assessed under Policy H12.
Policy H15: Authorised new / expanded Traveller sites	None - this policy sets out development principles but will not itself result in new development.	None	Yes Note that the development that could come forward in relation to this policy is assessed under Policy H12 (which defines the quantum of development). Proposals for new traveller sites, including expansion of the sites safeguarded in Policy H13, will be permitted within the settlement boundaries or through infilling, in accordance with Policy H4.
Chapter: Vibrant Economy			

Appendix B HRA Screening

Policy	Likely activities to result as a consequence of the proposal	Likely effect if proposal is implemented	Can likely significant effects be ruled out? (If not, then Appropriate Assessment is required)
Policy E1: Vibrant economy	None - this policy makes references to the plan's provision of c.39ha of employment land, but this is assessed in relation the location of that development, in Policy E2.	None	Yes
Policy E2: Spatial distribution of economic growth (associated with ten employment / mixed use site allocations)	Employment development Changes in vehicle traffic Changes in water use Changes in land use	Air pollution Changes in water quality / quantity Non-physical disturbance Physical damage / loss Fragmentation / severance	No Note that this policy defines the locations in which economic development can take place, at ten employment / mixed use site allocations. These allocations have associated development quanta.
Policy E3: Town centres strategy and hierarchy	Tourism and hotel development Retail and indoor leisure development Changes in vehicle traffic Changes in water use	Air pollution Changes in water quality / quantity Non-physical disturbance Recreation pressure	No Note that the quantum of residential and commercial development permitted within the policy is assessed in Policies H1 & H4 (housing) and E2 (economic development). However tourism, hotel, retail and leisure development are assessed as part of this policy.
Policy E4: Main town centre uses out of centre	None – this policy applies a sequential test to retail development that would come forward under Policy E3, but does	None	Yes

Appendix B HRA Screening

Policy	Likely activities to result as a consequence of the proposal	Likely effect if proposal is implemented	Can likely significant effects be ruled out? (If not, then Appropriate Assessment is required)
	not itself result in new development.		
Policy E5: Enhancing employment opportunities	Employment development Changes in vehicle traffic	Air pollution	Yes This policies allows small scale employment development within existing settlement boundaries (and outside of site allocations), but this is not considered likely to result in significant effects.
Policy E6: Retaining employment opportunities	None - this policy sets out development principles but will not itself result in new development.	None	Yes
Policy E7: Maintaining the vitality and viability of town centre uses	None - this policy sets out development principles but will not itself result in new development.	None	Yes
Policy E8: Local shops, services and facilities	Retail and commercial development Changes in vehicle traffic	Air pollution Non-physical disturbance Changes in water quality / quantity	Yes The development permitted by this policy is likely to be small in scale and will not result in significant impacts.
Policy E9: Economic	Retail, tourism and commercial development Changes in vehicle traffic	Air pollution Non-physical disturbance	No

Appendix B HRA Screening

Policy	Likely activities to result as a consequence of the proposal	Likely effect if proposal is implemented	Can likely significant effects be ruled out? (If not, then Appropriate Assessment is required)
development in the rural area		Changes in water quality / quantity	
Policy E10: Farm diversification	Changes in land use Changes in vehicle traffic Changes in water use	Air pollution Changes in water quality / quantity	No Note that proposals that attract visitors to the farm (eg retailing, cafes, visitor activities, education and leisure activities) are considered in Policy E11, Visitor-related development within the countryside; below. Equestrian development is considered in Policy NE12. Proposals for renewable and low carbon energy schemes will be assessed against Policy CN5.
Policy E11: Visitor-related development within the countryside	Tourism and hotel development Changes in vehicle traffic Changes in water use	Air pollution Changes in water quality / quantity Non-physical disturbance Recreation pressure	No

Site allocations

The following policies are associated with the Plan's site allocations -

Policy H12: Provision for Gypsies, Travellers and Travelling Showpeople:

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- Policy H16: The Nurseries, Shedfield (additional plots, number unknown)
- Policy H18: Tynefield, Whiteley (30 pitches)

Policy H1: Housing provision and Policy H2: Housing phasing and supply:

Strategic allocations:

- SH1: West of Waterlooville (250 homes)
- SH2: North Whiteley (200 homes)
- SH3: Whiteley Green (30 homes)

Winchester allocations:

- W1: Barton Farm (1,680 homes)
- W2: Sir John Moore Barracks (900 homes)
- W3: St Peter's Car Park (30 homes)
- W4: Courtenay Road (150 homes)
- W7: Central Winchester Regeneration Scheme (240 homes)
- W8: Station Approach Regeneration Area (250 homes)
- W9: Bar End Depot (30 homes)

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- W11: University Hospital area (student accommodation; capacity not specified)

Market towns and rural area:

- BW1: The Vineyard/Tangier Lane (120 homes)
- BW2: Albany Farm (120 homes)
- BW3: Tollgate Sawmill (10 homes)
- BW4: Land north of Rareridge Lane (100 homes)
- NA1: The Dean (130 homes)
- NA2: Sun Lane (320 homes)
- CC1: Clayfield Park (48 homes)
- CC2: Colden Common Farm (45 homes)
- CC3: Land at Main Road (35 homes)
- CC4: Land adjoining 85 Church Lane (10 homes)
- KN1: Ravenswood (200 homes)
- KW1: Cornerways & Merrydale (30 homes)
- KW2: Land adjoining the Cart & Horses PH (older persons accommodation; capacity not specified)
- WK1: Winchester Road (125 homes)

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- WK3: Welborne (open space / settlement gap; not allocated for development)
- WK5: Mill Lane, Wickham (40 homes)
- WK6: Southwick Road / School Road, Wickham (60 homes)
- OT01: Land East of Main Road, Otterbourne (55 homes)
- SU01: Brightlands, Sutton Scotney (60 homes)
- SWO1: Land at West Hill Road North, South Wonston (40 homes)
- SW1: The Lakes (100 homes)
- WC1: Morgans Yard (80 homes)

Neighbourhood plans:

- NA3: Alresford Neighbourhood Plan (100 homes)
- D1: Denmead Neighbourhood Plan (100 homes)
- HU1: Hursley Neighbourhood Plan (20 homes)

Policy E2: Spatial distribution of economic growth:

- SH4: Solent Business Park (11,000 sqm)
- W5: Bushfield

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- W6: Winnall
- W10: River Park
- The employment components of mixed use policies: W1, W2, W7, W8, W9, SH1, NA2, WC1

Standalone policies (ie not associated with another policy that defines quantum):

- SH6: Botley Bypass – assessed in policies table, above.

Appendix B HRA Screening

Table B.2: Screening matrix – allocated sites

Type of impact	Screening criteria (Development site could have a significant effect if...)	Potential development sites meeting screening criteria (sites to be considered in Appropriate Assessment)
Physical damage and loss of habitat Fragmentation and severance	Development occurs within or immediately adjacent to a Habitats Site or functionally linked habitat.	No allocated sites are within a Habitats Site Sites W6 and SH2 are adjacent to Habitats Sites. Parts of SH2 were surveyed as potential FLL and identified as 'low use site' as part of the Solent Waders and Brent Goose Strategy work. Further allocations may be present in areas of FLL that have not yet been surveyed/identified.
Non-physical disturbance	Development occurs within 500m of a Habitats Site or functionally linked habitat that supports qualifying features susceptible to impacts from non-physical disturbance, such as vibration, noise or light; i.e. development within 500m of: <ul style="list-style-type: none"> ■ River Itchen SAC (and its FLL) ■ Solent & Southampton Water SPA/Ramsar (and its FLL) 	River Itchen SAC (and its FLL): KW1, KW2, NA1, NA3, W3, W4, W5, W6, W7, W9, W10, CC3. Solent & Southampton Water SPA/Ramsar (and its FLL): SH2
Air pollution	Development is within 200m from roads forming part of the primary road network (motorways and 'A' roads), and increases traffic flows by at least 1,000 AADT or 200	All allocated sites (in combination). These Habitats Sites are all outside the Plan area but development contributing traffic to the A3 (east of the Plan

Appendix B HRA Screening

Type of impact	Screening criteria (Development site could have a significant effect if...)	Potential development sites meeting screening criteria (sites to be considered in Appropriate Assessment)
	<p>AADT (alone or in combination) on the following roads:</p> <ul style="list-style-type: none"> ■ Butser Hill SAC: A3 ■ Chichester & Langstone Harbour SPA/Ramsar: A3(M), A27, A2030, A3023; A259 ■ New Forest SAC, SPA/Ramsar: A36, M27 ■ Portsmouth Harbour SPA/Ramsar: A27, M27, M275 ■ River Itchen SAC: A31, A34, M3, M27 ■ Solent Maritime SAC and Solent & Southampton Water SPA/Ramsar: A3(M), A27, A2030, A3023; A259, M27, M271, A35, A36 ■ Salisbury Plain SAC and Porton Down SPA: A30 ■ Woolmer Forest SAC and Wealden Heath SPA: A3, A325 	<p>area), A303 (northwest of the Plan area) and M27 (south of the Plan area) would be the most likely to increase traffic past these Habitats Sites.</p>

Appendix B HRA Screening

Type of impact	Screening criteria (Development site could have a significant effect if...)	Potential development sites meeting screening criteria (sites to be considered in Appropriate Assessment)
Changes in water quantity or quality	Development extracting from or discharging to the Test and Itchen Catchment (River Itchen SAC plus Solent & Dorset Coast SPA, Solent & Southampton Water SPA/Ramsar and Solent Maritime SAC) or East Hampshire Catchment (Solent & Dorset Coast SPA, Solent & Southampton Water SPA/Ramsar and Solent Maritime SAC)	<p>All sites allocations could increase abstraction / discharge in these catchments.</p> <p>In addition, developments in close proximity to Habitats Sites could result in direct run off (e.g. during construction). Sites within 500m of Habitats Sites are:</p> <ul style="list-style-type: none"> ■ River Itchen SAC are: KW1, KW2, NA1, NA3, W3, W4, W5, W6, W7, W9, W10, CC3 ■ Solent & Southampton Water SPA/Ramsar: SH2
Recreation pressure	<p>Increases in population are likely to result in significant increases in recreation at a Habitats Site, either alone or in-combination.</p> <p>Residential site allocations within 5km ZOI of:</p> <ul style="list-style-type: none"> ■ Shortheath Common SAC ■ Woolmer Forest SAC ■ Wealden Heaths Phase 2 SPA 	<p>ZOIs fall outside the Plan area for:</p> <ul style="list-style-type: none"> ■ Shortheath Common SAC, ■ Woolmer Forest SAC, ■ Wealden Heaths Phase 2 SPA <p>No residential site allocations within the ZOIs for:</p> <ul style="list-style-type: none"> ■ Mottisfont Bats SAC <p>Residential sites allocations within ZOIs for:</p> <ul style="list-style-type: none"> ■ Solent & Southampton Water SPA/Ramsar: H16, H18, KN1, SH2, SH3, WC1.

Appendix B HRA Screening

Type of impact	Screening criteria (Development site could have a significant effect if...)	Potential development sites meeting screening criteria (sites to be considered in Appropriate Assessment)
	<p>Residential site allocations within 5.6km ZOI of:</p> <ul style="list-style-type: none"> ■ Solent & Southampton Water SPA/Ramsar ■ Chichester & Langstone Harbours SPA/Ramsar ■ Portsmouth Harbour SPA ■ Solent & Dorset Coast SPA <p>Residential site allocations within 7.5km ZOI of:</p> <ul style="list-style-type: none"> ■ Mottisfont Bats SAC <p>Large (EIA) residential/tourism site allocations within 5km ZOI of:</p> <ul style="list-style-type: none"> ■ New Forest SAC/SPA/ Ramsar 	<ul style="list-style-type: none"> ■ Chichester & Langstone Harbours SPA/Ramsar: SH1. ■ Portsmouth Harbour SPA: H18, KN1, SH1, SH3. ■ Solent & Dorset Coast SPA: as for all three of the above. ■ New Forest

Appendix C

Record of consultation

Appendix C Record of consultation

Table C.1: Record of consultation

Consultee and date	Comment	Response
Commenting on: HRA Scoping		
<p>Natural England 11 August 2020</p>	<p>Natural England advises that one of the main issues which should be considered in the plan and the SA/HRA are proposals which are likely to generate additional nitrogen emissions as a result of increased traffic generation, which can be damaging to the natural environment.</p> <p>The effects on local roads in the vicinity of any proposed development on nearby designated nature conservation sites (including increased traffic, construction of new roads, and upgrading of existing roads), and the impacts on vulnerable sites from air quality effects on the wider road network in the area (a greater distance away from the development) can be assessed using traffic projections and the 200m distance criterion followed by local Air Quality modelling where required. We consider that the designated sites at risk from local impacts are those within 200m of a road with increased traffic, which feature habitats that are vulnerable to nitrogen deposition/acidification. APIS provides a searchable database and information on pollutants and their impacts on habitats and species.</p>	<p>These impacts have been considered at the Screening stage (Chapter 4) and Appropriate Assessment (Chapter 5)</p>
	<p>Various water quality impacts may arise from the local plan which will require consideration within the SA and HRA (local plan and project-level). These include impacts on the River Itchen SAC and SSSI and River Test SSSI and associated headwaters via phosphorus discharges and poor quality surface run-off. When considering eutrophication, phosphates are currently a limiting factor within the River Itchen.</p>	<p>These impacts have been considered at the Screening stage (Chapter 4) and Appropriate Assessment (Chapter 5)</p>

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Consultee and date	Comment	Response
	<p>...</p> <p>Impacts on the Itchen SAC/SSSI from poor water quality of surface run-off during construction and operational phases will also require consideration under the Habitats Regulations.</p> <p>...</p> <p>Impacts on protected waterbodies outside of the District, in particular nitrogen enrichment within the Solent European designated sites within the Hamble river/estuary and along the coast, will also require consideration. It is Natural England's advice that the local plan should ensure new housing development is nutrient neutral.</p>	
	<p>The local plan should recognise the current uncertainty with regards to water resources and the impacts of abstraction and drought on protected sites including the River Itchen SAC.</p> <p>...</p> <p>It should also be noted that following the Environment Agencies changes to Southern Water abstraction licences to protect the Itchen SAC, a compensation and mitigation packages have been agreed between the Environment Agency, Natural England and Southern Water that will enable sustainability reductions to protect the River Itchen SAC to be implemented while ensuring that Southern Water can meet its statutory duties. Some of the required compensatory habitat may be implemented along some of the upper un-designated reaches of the Itchen within the District, which may have implications for development affecting that stretch of the river and associated headwaters. It is advised that the SA and local plan HRA further considers this aspect to help inform policy. Further details on locations of this compensatory habitat will be provided once Natural England has had confirmation of its location.</p>	<p>These impacts have been considered at the Screening stage (Chapter 4) and Appropriate Assessment (Chapter 5)</p> <p>If 'compensatory habitat' is required in response to impacts associated with the Local Plan, then the Plan would fail the Appropriate Assessment by default (i.e. adverse effects on the integrity of the SAC have not been avoided) and the Local Plan would need to proceed to the HRA derogation tests (demonstrating 'imperative</p>

Appendix C Record of consultation

Consultee and date	Comment	Response
		<p>reasons of overriding public interest', which is onerous). This issue will require further consultation with Natural England and Southern Water to understand the issue and agree an appropriate response.</p>
	<p>It is advised that the IIA Scoping Report identifies that parts of the Winchester City Council area fall within the 5.6km zone of influence for the Solent and Southampton Water Special Protection Areas (SPA), which is covered by the Solent Recreation Mitigation Partnership (SRMP) strategic solution and the 20km zone of influence for the New Forest.</p> <p>...</p> <p>Regarding the New Forest it is understood Winchester City Council do not sit on the New Forest International Designation Working Group that seeks to devise a joint mitigation strategy to deal with the issue, however are party to the data produced by this group. It is advised the local plan sets out an objective to develop an interim strategy to ensure development coming through can address the issue appropriately.</p>	<p>The HRA has relied on more recent work which defines a smaller ZOI; see paragraph 4.73. This is in line with the more recent response from NE to the Issues & Priorities consultation, below.</p>
	<p>We broadly agree with the scoping assessment. In addition it should assess direct and indirect impacts to qualifying species for example Southern Damselfly and White Clawed Crayfish in the River Itchen SAC. It should also take into account the Southern Water compensation package in the upper reaches of the River Itchen.</p>	<p>These impacts have been considered at the Screening stage (Chapter 4) and Appropriate Assessment (Chapter 5)</p> <p>Note comment on 'compensation', above.</p>

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Consultee and date	Comment	Response
<p>South Downs National Park Authority 11 August 2020</p>	<p>Have we correctly identified the European sites that should be scoped-in to the HRA of the Local Plan (see Chapter 3)?</p> <p>As identified on Figure 3.1 (page 15) and Figure 3.2 (page 17) the River Itchen Special Area of Conservation (SAC) is an area of importance within the SDNPA, Winchester and other Local Authorities. It runs from Hinton Ampner north towards New Alresford, then west to the south of Itchen Stoke towards Winchester City. It then continues south through the City and cuts in and out of the National Park, where it continues south towards Eastleigh.</p> <p>The HRA that accompanied the South Downs Local Plan (https://www.southdowns.gov.uk/wp-content/uploads/2018/04/SDLP-05-Habitats-Regulations-Assement-2018.pdf) captured some of the key issues with the River Itchen SAC. The key issues were hydrology based, and a principal threat has been decreased flow velocities affecting Macrophyte cover. There have been declines in Ranunculus since 1990; a vegetation that was part of the SAC designation initially. The SDNPA does not consider recreational pressure to be of particular concern for the River Itchen SAC, however dog walkers and disturbance of wildlife should be a consideration.</p> <p>Also although not an SAC/SPA, St Catherines Hill within the SDNP is of partial importance. Hugely sensitive landscape and views with high Download features.</p>	<p>Noted; River Itchen has been considered in relation to recreation pressure but screened out (paragraph 4.70)</p> <p>The sensitivity of St Catherine's Hill is relevant to the IIA but not the HRA.</p>
	<p>Have we correctly identified the sensitivities of the scoped-in European sites to potential impacts from the Local Plan (see Chapter 3 and Appendix A)?</p> <p>Generally, yes, however there may be more detail within the SDNP HRA mentioned above. Paragraph 5.3.6 of the SDNP HRA concluded that no adverse effect upon the River Itchen SAC will result from development provided by the Local Plan 'in combination' with growth from other sources, in regards to air quality. This is mainly due to roadside NOx concentrations being so low in this area (from car exhausts) due to the rural nature of the</p>	<p>Noted; River Itchen SAC has been screened in with regard to air pollution.</p> <p>Southern Water still need to be consulted (see additional comments from Reg.18 consultation, below).</p>

Appendix C Record of consultation

Consultee and date	Comment	Response
	<p>road and low traffic flow. However, within the Winchester City itself the nitrogen levels may be higher. It may be worthwhile mentioning the River Itchen SAC under Air Pollution as something to look into. The SDNPA would be welcome to any further discussion on this.</p> <p>Hydrology and water quantity are main causes of concern with the River Itchen SAC. Currently the SAC is vulnerable to changes in both water quantity and water quality. These were issues that the SDNPA through the preparation of the Local Plan, liaised and consulted with Natural England and the Environment Agency heavily. Water quality is linked to Nitrates, and is something that the SDNPA worked closely with the Environment Agency on during the SDLP preparation. I can see from the report that this is an issue that WCC are aware of, and the SDNPA will offer support wherever possible along with other stakeholders.</p> <p>In regards to water quantity, the SDNPA would suggest liaising with Southern Water. Paragraph 6.2.18 notes identified areas from Southern Water to meet the need of future water supply requirements to 2040. We were advised to meet with Southern Water when relevant applications are consented to confirm how their water supply requirements are to be met in the absence of the Candover Augmentation Scheme. It may be worthwhile to liaise early on any strategic options to verify any issues at a very early stages, and how mitigation could be sought.</p> <p>The HRA also covers the Solent European sites such as Chichester & Langstone Harbour SPAC/Ramsar site that may be of interest.</p>	
	<p>Are there other plans or major projects that we should take into account in the assessment of potential in-combination effects (Appendix B)?</p>	<p>These will be considered once further consultation with Southern Water has occurred (see paragraph 0, and further</p>

Appendix C Record of consultation

Consultee and date	Comment	Response
	<p>Consideration of the allocations through the SDLP due to their proximity to the River Itchen SAC. Run off from sites could result in a reduction in water quality and overall hydrology changes.</p> <ul style="list-style-type: none"> ■ SD63: Land South of the A272 at Hinton Marsh (Cheriton) and; ■ SD76: Land at Itchen Abbas (Itchen Abbas). <p>The Twyford Neighbourhood Plan is currently passed the Regulation 14 stage. It currently has two policies DB1: Land adjacent to the Parish Hall that proposes 20 dwellings, and the DB2: Redevelopment of Stacey's Garage, this site may have contamination issues. The SDLP HRA in paragraph 6.2.11 notes that the applicant for site DB1 will need to provide a drainage plan. To show either utilising existing mains at the nearest point of capacity or will be dealt with by small package treatment plant.</p>	<p>comments from Reg.18, below)</p>
	<p>Is the proposed approach to HRA of the Local Plan reasonable (Chapter 2)?</p> <p>The SDNPA deems the proposed approach to the HRA for the Local Plan to be reasonable and thorough. And the SDNPA will support and input in any way possible.</p>	<p>Noted</p>
<p>Local Plan Strategic Issues and Priorities Consultation</p>		
<p>Natural England 29 April 2021</p>	<p>Nutrient neutrality</p> <p>It is welcomed that the Council is seeking to allocate land through the local plan process to strategically address the impact of nutrients from new development on the River Itchen SAC and Solent marine designated sites, which are currently showing levels of eutrophication with consequential effects on protected species and habitats.</p> <p>It is advised a nitrogen budget is calculated for the Local Plan and a strategy is devised for delivering nutrient neutral mitigation for all sites. Mitigation can come forward via several</p>	<p>Noted and incorporated into next steps (Chapter 6).</p>

Appendix C Record of consultation

Consultee and date	Comment	Response
	<p>different options including on-site provision by larger development sites through green infrastructure/open space or by a local authority-led scheme for the smaller/windfall development or where any top-up is required from larger developments. Other wider strategic schemes approved by the local authority and Natural England may also be available and where these are relied upon it is advised that credits are secured/reserved to ensure that there is adequate supply available for the local plan growth. Bespoke solutions at Neighbourhood plan or development level can also come forward.</p> <p>Please note that the term ‘nutrient’ or ‘nitrogen’ should be used when discussing eutrophication of the marine Solent designated sites (‘nitrates’ specifically is a component of total nitrogen). When discussing eutrophication of riverine systems, ‘phosphorus’ should be the term used rather than ‘phosphates’.</p> <p>River Itchen – phosphorus</p> <p>With regards to eutrophication, phosphorus is currently a limiting factor within the River Itchen SAC. The local plan should seek to preserve water quality on the Itchen and ensure that local plan and windfall development within the district will not increase the phosphorus loading on the SAC from wastewater and surface run off.</p>	
	<p>Water resources</p> <p>The intention for stricter water use in the district is discussed under Issue 1 Carbon Neutrality. The water resource problems in the region also have implications for protected sites within the district, particularly the River Itchen Special Area of Conservation (SAC).</p> <p>Natural England strongly recommend that all new development adopt a higher standard of water efficiency of 100 litres/per person/day, including external water use and re-use, in line with Southern Water’s Target 100 demand reduction programme. Consideration should be given to the use of grey water recycling systems and efficient appliances.</p>	<p>The higher water efficiency standard has been incorporated into the Local Plan and assessed in the HRA.</p>

Appendix C Record of consultation

Consultee and date	Comment	Response
	<p>River Itchen compensatory habitat</p> <p>It should be noted that following the Environment Agency changes to Southern Water abstraction licences to protect the River Itchen SAC, compensation packages have been agreed between the Environment Agency, Natural England and Southern Water as a result of the Test and Itchen Public Inquiry and the S20 agreement. The River Meon is being considered as compensatory habitat for Atlantic Salmon, therefore it is advised that the local plan HRA considers the River Meon as a proposed SAC for Atlantic Salmon. This is also likely to have implications for the headwaters of the Meon. Further details on locations of this compensatory habitat will be provided once Natural England has had confirmation of its location.</p>	<p>Natural England confirmed the status of the compensatory habitat in July 2024; see below.</p>
	<p>Air Quality</p> <p>It is Natural England's advice that poor air quality may have adverse impacts on protected sites. We have provided comments on the Air Quality Supplementary Planning Document consultation (email, 8th April 2021).</p> <p>We would expect the plan to address the impacts of air quality on the natural environment. In particular, it should address the traffic impacts associated with new development, particularly where this impacts on European sites and SSSIs. The environmental assessment of the plan (SA and HRA) should also consider any detrimental impacts on the natural environment, and suggest appropriate avoidance or mitigation measures where applicable.</p> <p>Natural England advises that one of the main issues which should be considered in the plan and the SA/HRA are proposals which are likely to generate additional nitrogen emissions as a result of increased traffic generation, which can be damaging to the natural environment.</p>	<p>Noted; this is in line with the approach taken in the Screening and Appropriate Assessment.</p>

Appendix C Record of consultation

Consultee and date	Comment	Response
	<p>The effects on local roads in the vicinity of any proposed development on nearby designated nature conservation sites (including increased traffic, construction of new roads, and upgrading of existing roads), and the impacts on vulnerable sites from air quality effects on the wider road network in the area (a greater distance away from the development) can be assessed using traffic projections and the 200m distance criterion followed by local Air Quality modelling where required. We consider that the designated sites at risk from local impacts are those within 200m of a road with increased traffic, which feature habitats that are vulnerable to nitrogen deposition/acidification. APIS provides a searchable database and information on pollutants and their impacts on habitats and species: http://www.apis.ac.uk/</p> <p>It is advised that Natural England's approach to advising competent authorities on the assessment of road traffic emissions under the Habitats Regulations is followed when assessing impacts on protected sites.</p>	
Draft Local Plan, Regulation 18 Consultation		
<p>Natural England 14 December 2022</p>	<p><i>Air Quality</i></p> <p>Paragraph 5.34 concludes that there is currently insufficient traffic data to quantify the effects on the Local Plan on roads within 200m of designated sites.</p> <p>We would expect the plan to address the impacts of air quality on the natural environment. It should address the traffic impacts associated with new development, particularly where this impacts on European sites and SSSIs. The environmental assessment of the plan (Sustainability Appraisal (SA) and HRA) should also consider any detrimental impacts on the natural environment and suggest appropriate avoidance or mitigation measures where applicable.</p> <p>Natural England advises that one of the key issues which should be considered in the plan and the SA/HRA are proposals which are likely to generate additional nitrogen emissions</p>	<p>The HRA has been informed by transport modelling that identifies the affected road network, in line with the best practice guidance documents referenced by Natural England.</p> <p>Where traffic flows are shown to exceed screening criteria, air quality assessment will be carried out in line with IAQM and Natural England</p>

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	<p>as a result of increased traffic generation, which can be damaging to the natural environment.</p> <p>The effects on local roads in the vicinity of any proposed development on nearby designated nature conservation sites (including increased traffic, construction of new roads, and upgrading of existing roads), and the impacts on vulnerable sites from air quality effects on the wider road network in the area (a greater distance away from the development) can be assessed using traffic projections and the 200m distance criterion followed by local Air Quality modelling where required. We consider that the designated sites at risk from local impacts are those within 200m of a road with increased traffic [ref: The ecological effects of diffuse air pollution (2004) English Nature Research Report 580], which feature habitats that are vulnerable to nitrogen deposition/acidification. APIS provides a searchable database and information on pollutants and their impacts on habitats and species.</p> <p>It is advised that assessment, alone and in combination with other plans and projects, should be carried out in line with Natural England guidance [ref: https://publications.naturalengland.org.uk/publication/4720542048845824] that provides a simple step by step approach to assessing road traffic emissions under the Habitats Regulations. All designated sites that may be impacted by the affected road network within a reasonable buffer zone should be screened in for consideration under the Local Plan appropriate assessment. Please note that the method for assessing in combination effects has changed in the past few years due to a number of high profile appeal decisions. They include the following: The Wealden Judgement; The People Over Wind Case; and CJEU Ruling in The Netherlands Nitrogen and Agriculture Cases C-293/17 and C-294/17. As such we would be looking for a more detailed in-combination assessment with other plans/projects in the area and with Local Plans.</p> <p>Please note that ammonia (NH₃) from traffic emissions should also be assessed as the impact from this source on designated sites is currently unclear. For further information</p>	<p>guidance, and with reference to data on APIS.</p> <p>Note that the HRA will only assess the effects of air quality on Habitats Sites (or their functionally linked habitats). Assessment of effects on other designated sites e.g. SSSIs or on the natural environment more broadly may be relevant to the Sustainability Appraisal, but not the HRA.</p> <p>We note the suggestion that the air quality assessment should include consideration of ammonia.</p>

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	<p>please see this report [ref: https://www.aqconsultants.co.uk/news/february-2020/ammonia-emissions-from-roads-for-assessing-impacts] from Air Quality Consultants (AQC) that looks at ammonia emissions from roads for assessing impacts on nitrogen-sensitive habitats. Whilst we are aware that the current CREAM model created by AQC used to assess ammonia emissions from road traffic has not been peer reviewed, at this time it has been recognised as a Best Available Tool and we deem it appropriate to be used where any caveats associated with this model are also considered within the assessment. An assessment based on the best available approach is necessary. The next stage of assessment can then consider uncertainties in the model and site specifics to decide if mitigation needs to be considered.</p> <p>It is advised air quality impacts on interest features of nationally and locally designated sites is also carried out as part of an assessment of impacts on SSSIs and wider biodiversity.</p> <p>Natural England will be happy to advise further as the Plan progresses.</p>	
	<p><i>Water Quality</i></p> <p>Nutrients</p> <p>The HRA does not include nitrogen and phosphorus budgets arising from the Local Plan.</p> <p>It is Natural England's advice that a Plan-level nitrogen and phosphorus budget is calculated, and a suitable mitigation strategy is devised to ensure the total housing provision over the local plan period will achieve nutrient neutrality in order to ensure impacts on protected sites will be avoided. Mitigation can be delivered via several different on-site or off-site options, including delivery of nature-based solutions such as land use change to natural habitats, delivery of community orchards, constructed wetlands or vegetated riparian buffers. Other options may include the implementation of improved technology at wastewater treatment works or retrofitting of older less efficient works with newer models. Such options may come forward via on-site provision within development</p>	<p>The Reg.18 policy wording was sufficient to require developments to demonstrate nutrient neutrality but did not enable the identification of strategic mitigation. The Council has therefore produced nitrogen and phosphorus budgets for the Local Plan's proposed development.</p> <p>The HRA has been updated to reflect the nutrient budget</p>

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	<p>sites, or by a local authority-led schemes within the appropriate catchment. Other wider strategic schemes approved by the local authority and Natural England may also be available and where these are relied upon it is advised that credits are secured/reserved to ensure that there is adequate supply available for the local plan growth. Bespoke solutions at Neighbourhood plan or development level can also come forward. We encourage the Council to seek to allocate land through the local plan process to strategically address the impacts of nutrients from new development on the River Itchen SAC and Solent marine designated sites.</p>	<p>findings, mitigation incorporated into the Local Plan, and ongoing work to reach agreement with Natural England on strategic mitigation.</p>
	<p>Surface run-off</p> <p>The Appropriate Assessment concludes that affects arising from direct pollution via surface water-run off can be sufficiently mitigated by policies NE1, NE5, NE17, D5 and D8. Please see our comments under Policies NE6 and NE17 above regarding incorporation of SuDS features [see below].</p>	<p>See comments below in relation to policies NE6 and NE17.</p>
	<p><i>Recreational Disturbance – Solent designated sites</i></p> <p>Paragraph 5.48 refers to the strategy for the Solent Recreation Mitigation Partnership (SRMP), now known as Bird Aware Solent, which requires developers' contributions within 5.6km of the coast to address the in-combination effects of recreational disturbance from new development on the Solent SPAs. A significant area of the Winchester District lies within 5.6km of Solent & Southampton Water SPA; new housing within this zone will be required to address these impacts.</p> <p>The partnership prepared a strategy that was published in 2017 that aims to prevent bird disturbance from recreational activities. It seeks to do this through a series of management measures which actively encourage all coastal visitors to enjoy their visits in a responsible</p>	<p>The HRA now refers to the Solent Recreation Mitigation Strategy, produced by Bird Aware Solent. Policy NE5 was strengthened to provide mitigation for the Solent and New Forest Habitats Sites; the HRA has been updated to reflect those changes.</p>

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	<p>manner, rather than restricting access to the coast or preventing activities that take place there.</p> <p>The Bird Aware project is set to run until 2034 and its mitigation capacity has been assessed at 63,684 homes. Winchester's housing need was calculated at 3375 homes based on the Partnership for Urban South Hampshire (PfSH) Spatial Position Statement 2016. This is likely to lead to a shortfall of mitigation during the Plan period. Natural England is considering this issue and engaging with the Bird Aware project board and PfSH Stakeholders on the way forward.</p> <p>We advise that Winchester City Council consider within their HRA the level of forthcoming housing that will be covered by the current Strategy and work out any remaining capacity that is left. Any identified shortfall in the latter stages of the Plan period is likely to require further mitigation. We will continue to engage with Winchester City Council on this issue.</p>	
	<p><i>Recreational Disturbance – New Forest designated sites</i></p> <p>We advise that the HRA Screening document refers to recent studies and analysis conducted by Footprint Ecology, a national leader in the field of recreational impacts on protected sites, the impact of recreational activities of the special interest features of the New Forest designated sites. A series of reports focussing on different aspects of the work were published and these can be found on the New Forest National Park Authority website here. The work identifies that visitor levels at the sites (and associated impacts) will increase by a predicted 11.4% with new housing coming forward over the period 2018-2036. The majority of visitors to the New Forest designated sites originate from within a straight-line 13.8km radius (the zone in which 75% of visitors live). Additional visitors will be likely through tourism.</p> <p>The Zone of Influence report provides clarification and advice relating to the establishment of an appropriate 'zone of influence' or 'catchment area' within which visitors from new development are likely to have a significant impact on the New Forest. It makes several</p>	<p>The HRA has been updated to screen in likely significant effects associated with large (EIA) development within 15km of the New Forest SAC/SPA/Ramsar, and the Appropriate Assessment takes into account revisions to policy NE5, since the Reg.18 consultation (see previous row).</p>

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	<p>recommendations including use of the 75th percentile to define a zone of influence (i.e. the 13.8km zone), with scope to adjust this to reflect particular circumstances; it recommends the exclusion of several districts from the 13.8km zone based on low visitor levels – this includes the district of Winchester. It also recommends that large developments just outside of the zone of influence, particularly those within 15km of the protected sites, should be subject to Habitats Regulations Assessment (HRA) and that mitigation may be required.</p> <p>Natural England agree with the above recommendations and we therefore advise your Council that large development in Winchester district, within 15km of the New Forest designated sites, assess impacts on a case by case basis via HRA in consultation with Natural England. We advise this applies to EIA development so that any potential effects from significant residential (or touristic) development is captured. Mitigation, where assessed as required, may take the form of provision of very high quality local greenspace and/or a per dwelling contribution towards direct measures at the designated sites to address residual impacts.</p> <p>The HRA Screening acknowledges the main points above, but concludes the Draft Local Plan is not considered likely to significantly affect the New Forest SAC/SPA/Ramsar either alone or in-combination with other plans and projects. Natural England disagree with this conclusion and would advise the Plan screens in this impact pathway, taking it through to Appropriate Assessment and outlining the suitable mitigation options.</p>	
	<p><i>Other comments</i></p> <p>European Sites are now referred to as ‘Habitats sites’ in the context of planning policy.</p>	<p>The Reg.19 HRA has been updated to refer to Habitats Sites instead of European sites; see explanation in paragraph 1.11.</p>

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	<p>Relevant excerpts from the comments on the Local Plan <i>Policy NE6 Flooding, Flood Risk, and the Water Environment</i></p> <p>Plans should positively contribute to reducing flood risk by working with natural processes and, where possible, use Green Infrastructure policies and the provision of SUDs to achieve this.</p> <p>References to SUDs implementation and design is made in Policy NE6, and this could be integrated into the housing and sustainable development policies, outlining when SUDs would be required for development, and how they can be designed and managed.</p> <p>Surface drainage measures should also be considered with regard to poor water quality from surface water run-off, this should be linked to Policy NE17 and the River Itchen. Surface water can contain hydrocarbons and chemical pollutants associated with traffic (e.g. heavy metals, grit salts, particulates, oils), garden chemicals (enriching fertilisers or herbicides/ insecticides), household detergents etc. These may have considerable cumulative impacts on water quality with other local factors. Some development may also result in additional inputs of phosphorus to the river systems with negative effects on chalk river habitats and species via eutrophication. Additionally, the urbanisation of land within or close to the floodplain may affect water flow rates with consequential detrimental impacts on important river habitats, and/or they may exacerbate negative impacts from existing development. The Local Plan should ensure such impacts on protected sites, including the River Itchen Special Area of Conservation and its tributaries, and other important habitats are carefully considered, particularly for housing allocation sites.</p> <p>Additionally, we advise that Policy NE6 requires that Sustainable Drainage Systems (SuDS) should be designed in accordance with the CIRIA C753 SuDS Manual. Policy NE6 should also make clear that where a development drains to a protected site(s), an additional treatment component (i.e. over and above that required for standard discharges), or other equivalent protection may be required to ensure water quality impacts are avoided.</p>	<p>Policy NE6 has been updated to provide further detail on the requirement for SuDS and the HRA reflects those changes.</p>

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	<p>Where SuDS are proposed serving as mitigation for protected sites, development should ensure that appropriate resources are put in place to ensure their long-term (in perpetuity) monitoring, maintenance/replacement, and funding.</p>	
	<p><i>Policy NE16 Nutrient Neutrality Water Quality Effects</i></p> <p>As you are aware, Winchester district falls within two ‘nutrient neutrality’ zones, including the Solent with regard to the eutrophication effects of nitrogen, and the River Itchen SAC with regard to phosphorus. Natural England has previously advised your authority, as the Competent Authority under the Habitats Regulations, to carefully consider the nutrients impacts of any new plans and projects (including new development proposals) on habitats sites and whether those impacts may have an adverse effect on the integrity of a habitats site that requires mitigation, including through nutrient neutrality.</p> <p>Natural England welcome this Policy that will require new development that propose a net increase in overnight accommodation to address in-combination effects on the Solent designated sites and the River Itchen SAC via eutrophication from nutrients in wastewater.</p> <p>The Plan’s Housing provision (Strategic Policy H1) aims to deliver 15,620 net dwellings over the plan period. Policy NE16 puts a reliance on Habitat Regulations Assessment at project level to deliver mitigation. See further details on this aspect in our advice on the HRA further below in this letter.</p>	<p>Policy NE16 has been strengthened in relation to nutrient neutrality and the HRA has assessed those changes; see also comments above in relation to the suggested inclusion of a nutrient budget in the Local Plan and HRA.</p>
	<p><i>Policy NE17 Rivers, watercourses, and their settings</i></p> <p>Water quantity</p> <p>Southern Water’s Water Resources Management Plan (WRMP) 2019, that covers the planning period 2020-2070, projects a significant supply demand deficit during periods of drought in the Western Area, and commits to implementing a long term water resources scheme to restore the supply demand balance whilst avoiding and/or mitigating impacts on European sites, including the River Itchen Special Area of Conservation (SAC).</p>	<p>Policy NE17 was updated to include the water efficiency standard of 100 litres/person/day and water conservation / management, including greywater recycling, prior to the Reg.18</p>

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	<p>It is Natural England’s advice that in advance of any permitting of such a suitable long term scheme, uncertainty remains with regards to water resources and the impacts of abstraction on protected sites.</p> <p>Although it is welcomed that Policy NE17 requires development to conserve and enhance water quantity to help achieve the requirements of the Water Framework Directive, Natural England strongly advise all new development within the Southern Water supply area adopt a higher standard of water efficiency of 100 litres/per person/day, including external water use and re-use, in line with Southern Water’s Target 100 demand reduction programme which is committed to within their WRMP19. Natural England also recommends that the Policy encourages the wise use of water in conjunction with the water companies, for example by developments incorporating grey water recycling systems and efficient appliances.</p> <p>Water quality – surface water and groundwater</p> <p>We welcome that this Policy will require development proposals to include measures to eliminate risk of pollution to ground water, surface water and watercourse corridor features. It is advised that the paragraph I refers to the Habitats Regulations in addition to the Water Framework Directive due to the international designation of the River Itchen.</p> <p>Additionally, we advise that paragraph vi should be linked to Policy NE6 regarding the incorporation and design of SuDS features.</p> <p>Functionally linked land</p> <p>The Plan does not include reference to functionally linked land in relation to designated sites, although this is assessed in the accompanying Habitat Regulations Assessment. Policy NE17 refers to the international designations of the River Itchen and Upper Hamble. A small number of Solent Wader and Brent Goose Strategy (SWBGS) sites are identified around the Upper Hamble as supporting high tide roosts of the Solent Maritime SAC. In this</p>	<p>consultation and the HRA reflects this.</p> <p>Measures to protect water quality have been incorporated into policies NE6, NE17 and relevant site allocation policies, in consultation with the Environment Agency. The HRA reflect these changes.</p> <p>Safeguards for FLL have been strengthened in Policy NE5, which also includes the requirement for a CEMP. Policy NE17 also makes reference to the Solent Wader and Brent Goose Strategy. The HRA reflects these.</p>

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	<p>context we recommend that Policy NE17 refers to the SWBGS, which could also be linked to Policy NE4 and NE5. It is also of relevance to the North Whiteley allocation policy SH2.</p> <p>Solent Wader and Brent Goose mapping (as provided on the SWBGS website) may be subject to change over the plan period, therefore it is recommended the Policy ensures the latest mapping is sought in advance of determining planning applications.</p> <p>We recommend the Policy outlines that where impacts are identified or uncertainty remains, appropriate avoidance and/or mitigation measures should be secured in line with the Solent Waders and Brent Goose Strategy Guidance on Mitigation and Off-setting requirements, to be agreed with Natural England.</p> <p>We advise that developments affecting SPA supporting habitat should produce a Construction Environmental Management Plan (CEMP) to address potential impacts to these habitats during the construction phase. In particular, noise disturbance should be addressed by avoiding works over 69dB during winter months (as per our advice on applications).</p> <p>With regard to collection of financial contributions to address impacts on SPA supporting habitat (specifically Secondary and Low Use sites), it is recommended that the Local Plan identifies some suitable projects to which funds can be directed to ensure the protection and enhancement of the wider SWBG network.</p>	
<p>Environment Agency 14 December 2022</p>	<p>Relevant excerpts from EA response to Reg. 18 consultation: <i>Water Quality and Protection</i></p> <p>Some of the site-specific policies will need to be strengthened further in relation to the protection of groundwater. The most important groundwater resources in the district are currently at 'poor' status under the WFD. Ground water resources in the district are amongst the most sensitive in the region and are highly vulnerable to pollution. 80% of the district is underlain by principal aquifer and 46% of the district is within Source Protection</p>	<p>The HRA has assessed all amendments made to policies within the Plan since the Reg.19 consultation. This has included updates to Policies NE6, NE17 and relevant site specific policies that Winchester Council made in</p>

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	<p>Zones (covering the “potable water supply” abstraction points). These zones exist to protect public drinking water supplies and suitable pollution prevention measures are focused in these areas. In accordance with NPPF [para 174 and 183] planning policy should be looking to prevent unacceptable levels of water pollution and remediate and mitigate degraded and derelict contaminating and unusable land. Some of your site specific policies do not go far enough to protect our water environment particularly groundwater.</p> <p><i>Policy NE 16 – Nutrient Enrichment and Neutrality</i></p> <p>The legal requirement (under Habitats and Water Framework Directives) to mitigate nutrient impacts and loading from development need to be carefully considered and calculated as per Natural England’s guidance. Current pressures on appropriate and available land to include nutrient neutrality requirements on top of legal objectives in place to further reduce nutrient loading (specifically phosphorous and nitrogen) for water quality, is currently a significant challenge for all freshwater catchments draining into Marine European Designated Sites across the Solent.</p> <p>Nutrient limits on wastewater treatment works permits may need to be tightened if additional development is connected to ensure nutrient loads from the works do not increase and cause deterioration in the condition of these protected sites or jeopardise the achievement of planned improvements. There may be technical limitations to the level of treatment possible to ensure loads do not increase above current legislative requirements. We strongly recommend discussion with Southern Water on the siting and size of development proposed in relation to their wastewater treatment capacity.</p>	<p>consultation with the Environment Agency to provide additional safeguards for water quality. The nutrient topic paper (and ongoing work to agree strategic mitigation with Natural England) reduces the requirement to rely on wastewater treatment by Southern Water.</p>
Direct communication on draft Reg.19 HRA		
Natural England 4 July 2024	The River Meon should be referred to as the River Meon Compensatory SAC Habitat, I have checked this with our water team and they have also now advised me that further compensatory habitat is being considered on the River Dever including the winterbourne	Reference to River Meon pSAC (referred to in Reg.18 HRA) updated / removed to reflect current status of

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	<p>stretches which also falls into your authority area, this should be referred to the River Test Compensatory SAC Habitat.</p> <p>It should be noted that following the Environment Agency changes to Southern Water abstraction licences to protect the River Itchen Special Area of Conservation (SAC), compensation packages have been agreed between the Environment Agency, Natural England and Southern Water as a result of the Test and Itchen Public Inquiry and the S20 agreement. The River Meon is being considered as compensatory habitat for Atlantic Salmon and chalk stream habitat and the River Dever is being considered as compensatory habitat for chalk stream habitat.</p> <p>A map is not currently available for the areas covered by the River Meon Compensatory SAC Habitat and the River Test Compensatory SAC Habitat, but the area considered for compensation currently includes the whole River Meon catchment including the winterbourne channels and the whole of the River Dever including the winterbourne channels. Natural England is confirming with Defra who will notify responsible stakeholders on this matter, at this time further details will be provided including further details on the area covered. Once confirmed this will have the effect of applying the Habitats Regulations to those compensatory habitats in line with UK policy.</p>	<p>unconfirmed compensatory habitat on River Meon and Dever (Test).</p>
<p>Southern Water 8 July 2024</p>	<p>In response to your request for “written confirmation that Southern Water can meet the projected demand for water supply in terms of all the site allocated into the plan”, please see my response below.</p> <p>Southern Water will assess capacity in relation to proposed development during the planning process and any capacity constraints will be managed through the current regulatory funding mechanism for the reinforcement of our network.</p>	<p>References to water supply updated to reflect this and emerging SOCG.</p>

Appendix D Nutrient budget calculations

Appendix D

Nutrient budget calculations

D.1 Nutrient budget prepared by Winchester Council, May 2024

WCC Local Plan Nutrient Budget

East Hampshire Catchment (Nitrogen only)

Site Reference	Site Name	Total Discharge of TN after WWTW treatment, including 20% buffer (Kg/TN/Yr)
Bishops Waltham WWTW		
BW3	Tollgate Mill	52.95
BW4	Rareridge Lane	173.30
H16	The Nurseries, Shedfield	4.43
SW1	The Lakes, Swanmore	80.38
	Windfall	118.75
Budds Farm WWTW		
D1	Denmead NP	87.48
SH1	West of Waterlooville	218.70
	Windfall	38.46
Peel Common WWTW		
H18	Ravenswood	23.86
SH2	Whiteley	159.05
SH3	Whiteley Green	50.93
Wickham WWTW		
WC1	Morgans Yard	200.76
WK4	Ravenswood	611.04
WKX	TBC (approx. 50 dwellings)	45.45
WKX	TBC (approx. 50 dwellings)	45.45
	Windfall	77.92
	TOTAL	2030.83

Test Catchment (Nitrogen only)

Site Reference	Site Name	Total Discharge of TN after WWTW treatment, including 20% buffer (Kg/TN/Yr)
Gratton WWTW		
XX	TBC (approx. 60 dwellings)	189.35
	Windfall	31.12
PTP'S/Septic Tanks		
H17	Carousel Park, Micheldever	88.61
	TOTAL	309.08

Itchen Catchment (Nitrogen and Phosphorus)

Site Reference	Site Name	Total Discharge of TN after WWTW treatment, including 20% buffer (Kg/TN/Yr)	Total Discharge of TP after WWTW treatment, including 20% buffer (Kg/TP/Yr)
Harestock WWTW			
W1	Barton Farm	116.06	71.91
W2	Sir John Moore Barracks	1702.02	112.55

W4	Land west of Courtenay Road	57.45	15.45
KW1	Cornerways and Merrydale	27.26	0.85
KW2	Land adjoining the Cart and Horses	291.3	11.27
SW01	Land at West Hill Road North	41.26	4.62
	Windfall	916.34	14.68
Morestead WWtW			
W3	St Peters Car Park	30.80	1.28
W7	Central Winchester Regeneration	736.15	30.51
W8	Station Approach	195.90	10.62
W9	Bar End Depot	105	4.05
W11	University and RCH	361.05	16.74
	Windfall	807.30	28.46
New Alresford WWtW			
NA2	Sun Lane	8.18	N/A
NA3	NP Designated Area	90.87	65.94
	Windfall	140.4	30.15
Chickenhall WWtW			
CC1	Clayfield Park	128.01	2.27
CC2	Colden Common Farm	58.09	4.10
CC3	Land at Main Road	22.7	2.22
CC4	Land adjoining 85 Church Lane	16.99	1.32
OT1	Land east of Main Road	0	10.32
	Windfall	140.40	4.95
	TOTAL	6127.27	381.08

References

- 1 The integrity of a site is the coherence of its ecological structure and function, across its whole area, that enables it to sustain the habitat, complex of habitats and/or the levels of populations of the species for which it was designated. (Source: UK Government Planning Practice Guidance)
- 2 <https://www.gov.uk/guidance/appropriate-assessment>
- 3 Classified (a) before the day of the UK's exit from the EU (31 January 2020) in accordance with Article 4(1) or 4(2) of the European Union Wild Birds Directive for rare and vulnerable birds (as listed in Annex I of the Directive), and under Article 4(2) for regularly occurring migratory species not listed in Annex I, or (b) after exit day under the retained transposing regulations.
- 4 The network of protected areas identified by the EU:
https://ec.europa.eu/environment/nature/natura2000/index_en.htm
- 5 <https://www.gov.uk/government/publications/changes-to-the-habitats-regulations-2017/changes-to-the-habitats-regulations-2017>
- 6 Defra and Natural England (2021) Guidance - Habitats regulations assessments: protecting a European site,
<https://www.gov.uk/guidance/habitats-regulations-assessments-protecting-a-european-site>
- 7 NPPF (2021) para 181, available from
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1005759/NPPF_July_2021.pdf
- 8 The HRA Handbook, Section A3. David Tyldesley & Associates, a subscription based online guidance document:
<https://www.dtapublications.co.uk/handbook/European>
- 9 Department for Environment, Food and Rural Affairs, Natural England, Welsh Government and Natural Resources Wales (2021) Habitats regulations assessments: protecting a European site,
www.gov.uk/guidance/habitats-regulations-assessments-protecting-a-european-site

- 10** Regulation 5 of the Habitats Regulations 2017
- 11** UK Government Planning Practice Guidance, available from <https://www.gov.uk/guidance/appropriate-assessment>
- 12** European Commission (2001) Assessment of plans and projects significantly affecting European Sites. Methodological guidance on the provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC.
- 13** The HRA Handbook. David Tyldesley & Associates, a subscription based online guidance document:
<https://www.dtapublications.co.uk/handbook/European>
- 14** Conservation objectives are published by Natural England for SACs and SPAs:
<http://publications.naturalengland.org.uk/category/6490068894089216>
- 15** In line with the CJEU judgment in Case C-323/17 People Over Wind v Coillte Teoranta, mitigation must only be taken into consideration at this stage and not during Stage 1: HRA Screening.
- 16** In addition to European site citations and conservation objectives, key information sources for understanding factors contributing to the integrity of European sites include (where available) conservation objectives supplementary advice and Site Improvement Plans prepared by Natural England:
<http://publications.naturalengland.org.uk/category/5458594975711232>
- 17** These were obtained from the Joint Nature Conservation Committee and Natural England websites (www.jncc.gov.uk and www.naturalengland.org.uk)
- 18** www.jncc.defra.gov.uk
- 19** Natural England is in the process of compiling Site Improvement Plans for all Natura 2000 sites in England as part of the Improvement programme for England's Natura 2000 sites (IPENS).
- 20** Supplementary Advice Notes, Natural England, (can be found under the relevant European site's Conservation Objectives):
<http://publications.naturalengland.org.uk/category/6490068894089216>

References

- 21** <http://publications.naturalengland.org.uk/category/6490068894089216>
- 22** SI No. 2017/2012
- 23** ECJ Case C-127/02 “Waddenzee” Jan 2004.
- 24** Advocate General’s Opinion to CJEU in Case C-258/11 Sweetman and others v An Bord Pleanala 22nd Nov 2012.
- 25** The HRA Handbook. David Tyldesley & Associates, a subscription based online guidance document [online] Available at:
<https://www.dtapublications.co.uk/handbook/European>
- 26** Assessment of plans and projects significantly affecting European sites. Methodological guidance on the provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC. European Commission Environment DG, November 2001.
- 27** <http://jmammal.oxfordjournals.org/content/93/4/1110>
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