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Habitats Regulations Assessment of New Forest District (outside the National Park) Local Plan Part 1

Assessment of Proposed Submission Plan

Prepared by LUC
June 2018

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Client: New Forest District Council

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1 Introduction

1.1 LUC has been commissioned by New Forest District Council (NFDC or 'the Council') to carry out a Habitats Regulations Assessment (HRA) of its Local Plan Part 1. This report presents the methodology and findings of the HRA.

Background to preparation of the Local Plan Part 1

1.2 NFDC is undertaking a review of its adopted Local Plan which comprises two parts:

- the Core Strategy (adopted in 2009);
- the Sites and Development Management Plan (adopted in 2014).

1.3 An early review of the Local Plan is necessary in order to ensure that planning policies for the District are in conformity with the National Planning Policy Framework (NPPF) which was published in 2012, after the Core Strategy was adopted. The New Forest District Local Plan covers the parts of the District that lie outside of the New Forest National Park. The Council will initially prepare Part 1 of the new Local Plan which will replace the adopted Core Strategy and set out strategic policies and strategic locations for development. The replacement Part 2 Local Plan, setting out smaller sites plus development management policies, will be progressed at a later date.

The requirement to undertake HRA of development plans

1.4 The requirement to undertake HRA of development plans was confirmed by the amendments to the Habitats Regulations published for England and Wales in 2007[1]; the currently applicable version of the Habitats Regulations came into force in November 2017[2]. When preparing its Local Plan, NFDC is therefore required by law to carry out an HRA although consultants can undertake the HRA on its behalf. 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.

1.5 HRA refers to the assessment of the potential effects of a development plan on one or more European sites, including Special Protection Areas (SPAs) and Special Areas of Conservation (SACs):

- SACs are designated under the European Habitats Directive and target particular habitat types (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.
- SPAs are classified in accordance with Article 4(1) of the European Union Birds Directive[3] 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.

1.6 Potential SPAs (pSPAs)[4], candidate SACs (cSACs)[5], Sites of Community Importance (SCIs)[6] and Ramsar sites should also be included in the assessment.

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[1] *The Conservation (Natural Habitats, &c.) (Amendment) Regulations 2007* (2007) SI No. 2007/1843. TSO (The Stationery Office), London.
[2] *The Conservation of Habitats and Species Regulations 2017* (2017) SI No. 2017/1012, TSO (The Stationery Office), London.
[3] *Council Directive 2009/147/EC of 30 November 2009 on the conservation of wild birds* (the codified version of Council Directive 79/409/EEC, as amended).
[4] Potential SPAs are sites that have been approved by the Minister for formal consultation but not yet proposed to the European Commission, as listed on the GOV.UK website.
[5] Candidate SACs are sites that have been submitted to the European Commission, but not yet formally adopted, as listed on the JNCC's SAC list.

- Ramsar sites support internationally important wetland habitats and are listed under the Convention on Wetlands of International Importance especially as Waterfowl Habitat (Ramsar Convention, 1971).

1.7 For ease of reference during HRA, these designations can be collectively referred to as European sites[7] despite Ramsar designations being at the international level.

1.8 The overall purpose of the HRA is to conclude whether or not a proposal or policy, or the whole development plan, would adversely affect the integrity of the European site in question either alone or in combination with other plans and projects. This is judged in terms of the implications of the plan for the 'qualifying features' for which the European site was designated, i.e.:

- SACs – Annex I habitat types and Annex II species[8];
- SPAs – Annex I birds and regularly occurring migratory species not listed in Annex I[9];
- Ramsar sites – the reasons for listing the site under the Convention[10].

1.9 Significantly, HRA is based on the precautionary principle meaning that where uncertainty or doubt remains, an adverse impact should be assumed.

Stages of HRA

1.10 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 European site in question.

1.11 The HRA should be undertaken by the 'competent authority', in this case NFDC, and LUC has been commissioned to do this on the Council's behalf. The HRA also requires close working with Natural England as the statutory nature conservation body[11] 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. As described under 'Previous HRA work' below, consultation has also been undertaken with New Forest National Park Authority (NPA) (including through participation in joint HRA Scoping), the RSPB, Hampshire Wildlife Trust, Dorset Wildlife Trust and Wiltshire Wildlife Trust.

Requirements of the Habitats Regulations

1.12 In assessing the effects of a Local Plan in accordance with Regulation 105 of the Conservation of Habitats and Species Regulations 2017, 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:

1.13 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, as is the case for the Forest Heath SIR and SALP, proceed to Step 2.

1.14 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.

[Steps 1 and 2 are undertaken as part of Stage 1: HRA screening in Table 1.1.]

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[6] SCIs are sites that have been adopted by the European Commission but not yet formally designated as SACs by the UK Government.

[7] The term 'Natura 2000 sites' can also be used interchangeably with 'European sites' in the context of HRA, although the latter term is used throughout this report.

[8] As listed in the site's citation on the JNCC website (all features of European importance, both primary and non-primary, need to be considered).

[9] As identified in sections 3.1, 3.2 and 4.2 of the SPA's standard data form on the JNCC website; at sites where there remain differences between species listed in the 2001 SPA Review and the extant site citation in the standard data form, the relevant country agency (Natural England or Natural Resources Wales) should be contacted for further guidance.

[10] As set out in section 14 of the relevant 'Information Sheet on Ramsar Wetlands' available on the JNCC website.

[11] Regulation 5 of the Habitats Regulations 2017.

1.15 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.

[This step is undertaken during Stage 2: Appropriate Assessment shown in Table 1.1.]

1.16 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.

1.17 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).

Typical stages

1.18 Table 1.1 summarises the stages and associated tasks and outcomes typically involved in carrying out a full HRA, based on various guidance documents[12] [13] [14].

[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] DCLG (2006) Planning for the Protection of European Sites: Appropriate Assessment
[14] RSPB (2007) The Appropriate Assessment of Spatial Plans in England. A guide to why, when and how to do it.

Table 1.1 Stages of HRA

Stage	Task	Outcome
Stage 1: HRA screening	Description of the development plan. Identification of potentially affected European sites and factors contributing to their integrity. Review of other plans and projects. Assessment of likely significant effects of the development plan alone or in combination with other plans and projects.	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 (where Stage 1 does not rule out likely significant effects)	Information gathering (development plan and European Sites). Impact prediction. Evaluation of development plan impacts in view of conservation objectives. Where impacts are considered to affect qualifying features, identify how these can be avoided or adequately mitigated.	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 adequately mitigated, 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	Identify 'imperative reasons of overriding public interest' (IROPI). Demonstrate no alternatives exist. Identify potential compensatory measures.	This stage should be avoided if at all possible. The test of IROPI and the requirements for compensation are extremely onerous.

1.19 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, reduce or abate 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 both the Government and European Commission.

Previous HRA work

1.20 The adopted Local Plan for New Forest District was subject to HRA throughout its development. The final HRA documents for the adopted New Forest District Local Plan were:

- Habitats Regulations Assessment Screening Statement and Appropriate Assessment for New Forest District Council Core Strategy - Submission Document (prepared by New Forest District Council, September 2008).
- Sites and Development Management Development Plan Document Habitat Regulations Assessment of Submission Document and Main Modifications (prepared by New Forest District Council, September 2013) incorporating Appendix 1: Addendum to Habitats Regulations Assessment of Proposed Submission Document (prepared by LUC for New Forest District Council, August 2013).
- Appropriate assessment of Policy TOT11: Eling Wharf (prepared by LUC for New Forest District Council, December 2011).

1.21 A key document linked to the HRA of the adopted New Forest District Local Plan is the Supplementary Planning Document (SPD) 'Mitigation Strategy for European Sites: Recreational Pressure from Residential Development', which was adopted by New Forest District Council in June 2014.

1.22 LUC was appointed in January 2016 by NFDC, working with the New Forest National Park Authority, to undertake HRA of the emerging new Local Plans for New Forest District and the New Forest National Park. Although the two Local Plans are being prepared separately and are subject to separate HRAs, a joint approach was taken to the initial stage of the HRA with the production of a non-statutory HRA Scoping Report in April 2016. Its purpose was to draw together and update as necessary the relevant evidence that was gathered during the HRA work undertaken previously for the adopted Plans for New Forest District and the New Forest National Park, to describe the approach that will be taken to the HRA of the new Local Plans, and to obtain the views of Natural England and other selected stakeholder bodies (the RSPB and the Wildlife Trusts) on these. Stakeholder comments on the HRA Scoping Report and responses indicating how these have been taken into account are presented in Appendix 6. The evolving HRA methodology was recorded in a non-statutory HRA 'Discussion Document' which was the subject of a stakeholder meeting on 9 August 2016. Further stakeholder comments received as a result of this meeting and responses to them are also set out in Appendix 6.

1.23 In August 2017, LUC prepared an initial draft of the HRA of the Local Plan Part 1. The detailed text of the Local Plan Part 1 policies had not at that stage been drafted and the initial draft HRA was therefore based on the key elements proposed for each policy, together with a separate document providing concept drawings and guiding principles for the emerging draft strategic sites allocations. The purpose of the initial draft HRA was to highlight potential effects of the emerging Local Plan Part 1 policies on European sites to the officers drafting those policies so that these could be taken into account in finalising the Proposed Submission Local Plan Part 1. As such, the HRA at that stage was an internal document and not subject to consultation.

1.24 Therefore, there is already a significant body of HRA work available relating to New Forest District. This formed the starting point for information gathering to inform the HRA of the Local Plan Part 1, building on and updating it to take account of the latest available information.

Structure of the HRA report

1.25 This chapter has introduced the Local Plan Part 1 and the requirement to undertake HRA. The remainder of the report is structured as follows:

- Chapter 2 describes the structure and content of the New Forest District Local Plan Part 1;
- Chapter 3 sets out the approach used and specific tasks undertaken during the HRA;
- Chapter 4 describes the findings of the screening stage of the HRA;
- Chapter 5 describes the assumptions made and assessment findings for the Appropriate Assessment stage of the HRA;
- Chapter 6 summarises the assessment conclusions of the HRA of the Proposed Submission Local Plan Part 1.

2 The Local Plan Part 1

2.1 When finalised, the Local Plan Part 1 will set out the planning strategy, strategic policies and key development sites for the period 2016 to 2036 covering the area of New Forest District outside of the New Forest National Park. This HRA has been based on the draft of the Local Plan Part 1 provided by NFDC officers on 6 June 2018. The structure of the Local Plan is summarised in Table 2.1. Outlines of relevant elements of the provisions of the individual policies are provided in the screening matrix in Appendix 4.

2.2 The Council consulted on an 'Initial Proposals' Local Plan Part 1 document during July to September 2016, the main purpose of which was to gather views on the potential locations for new housing development. The Proposed Submission version of the Local Plan Part 1 is being published for Regulation 19 consultation during June to July 2018.

Table 2.1 Structure and policies of NFDC Local Plan Part 1

Chapter 1. Introduction
Introduction
Chapter 2. Area profile and context
Area profile and context
Chapter 3. Vision, key issues and strategic objectives
Key issues
Vision and strategic objectives
Chapter 4. The spatial strategy
Policies 1-8
Chapter 5. Protecting our special environment
Policies 9-15
Chapter 6: Providing for our housing needs
Policies 16-20
Chapter 7. Supporting the local economy
Policies 21-28
Chapter 8. Addressing community safety and climate change
Policies 29-33
Chapter 9. Implementation and strategic site allocations
Policies 34-37
Strategic site allocations
Multiple site allocation polices (SS 1-SS 18)

3 HRA methodology

3.1 HRA of the Local Plan Part 1 has been undertaken in line with current available guidance, good practice and case law and seeks to meet the requirements of the Habitats Regulations. The tasks that have been undertaken during the HRA are described below.

Identification of European sites which may be affected

3.2 In the HRA work undertaken previously for the two parts of the adopted New Forest District Local Plan, the Core Strategy and the Sites and Development Management DPD, 13 European sites were included in the assessments. These European sites were included in the previous HRA work because they were found to have potential ecological connections to New Forest District. A buffer distance of 10 km around the District boundary was applied as a starting point to identifying the European sites to be included in the HRA. The list of sites was then refined by considering whether any more distant European sites are functionally linked to the District and whether any of those within 10 km could be scoped out because of an absence of pathways by which effects on the integrity of European sites from development might occur.

3.3 No objections were raised by Natural England during the HRA work for the adopted New Forest District Local Plan with regards to the list of sites included in the assessment, suggesting that it would be appropriate to include the same 13 sites in the HRA work for the new Local Plan for New Forest District. However, in light of Natural England's consultation response to the HRA report for the New Forest National Park Authority's Core Strategy and Development Management Policies DPD, which stated that Mottisfont Bats SAC should be included in the scope of the HRA, the HRA Scoping Report proposed that this SAC also be included in the HRA for the New Forest District Local Plan. Consultation comments received on the HRA Scoping Report (Appendix 6) indicated that this was not necessary as planning guidance for the SAC[15] agreed by Natural England establishes a zone of influence of 7.5 km beyond which likely significant effects on the designated bat population are unlikely. Consultation on the HRA Scoping Report also identified a need to consider the potential for the Local Plan Part 1 to have adverse effects on the River Itchen SAC in relation to water supply/changes in water quantity. Finally, Solent and Dorset Coast potential SPA (pSPA) was subject to formal consultation until January 2017 on its possible designation to protect marine feeding areas used by designated birds and has also been scoped into the HRA.

3.4 The final list of European sites that have been considered in the HRA of the Local Plan Part 1 is as follows:

- River Avon SAC;
- Avon Valley SPA;
- Avon Valley Ramsar site;
- Dorset Heaths SAC;
- Dorset Heathlands SPA;
- Dorset Heathlands Ramsar site;
- The New Forest SAC;
- New Forest SPA;
- The New Forest Ramsar site;
- River Itchen SAC;

[15] Jonathan Cox Associates (2010) Mottisfont Bats Special Area of Conservation (SAC) Protocol for Planning Officers.

- Solent and Dorset Coast pSPA;
- Solent and Isle of Wight Lagoons SAC;
- Solent Maritime SAC;
- Solent and Southampton Water SPA;
- Solent and Southampton Water Ramsar site.

3.5 The locations of the European sites above are shown in Figure 3.1**.** The designated features and conservation objectives of the European sites, together with current pressures on and potential threats to these are described in Appendix 1. This information was drawn from the Standard Data Forms for SACs and SPAs and the Information Sheets for Ramsar Wetlands published on the JNCC website[16], Natural England's Site Improvement Plans[17], conservation objectives (only available for SACs and SPAs) published on the Natural England website[18], and consultation information for potential marine SPAs published by Defra[19].

[16] www.jncc.defra.gov.uk

[17] http://publications.naturalengland.org.uk/category/5458594975711232

[18] http://publications.naturalengland.org.uk/category/6490068894089216

[19] https://www.gov.uk/government/consultations/solent-and-dorset-coast-potential-special-protection-area-comment-on-proposals

HRA of New Forest District Local Plan Part 1

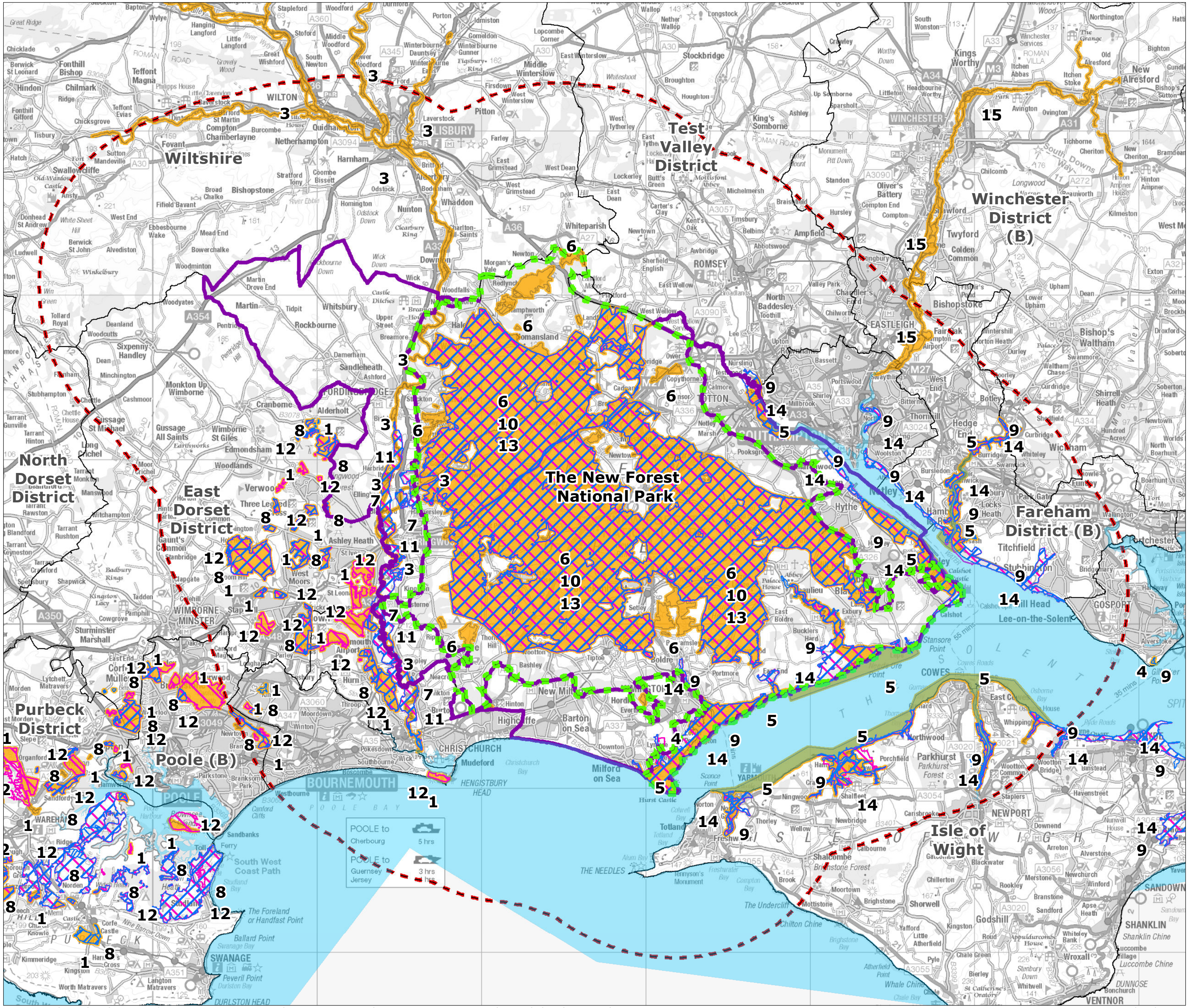


Figure 3.1: European Sites considered in the HRA

- New Forest District boundary
- New Forest National Park Authority boundary
- 10km buffer from study area
- Local Planning Authority boundary
- Special Areas of Conservation - (SAC)
  - 1: Dorset Heaths
  - 3: River Avon
  - 4: Solent and Isle of Wight Lagoons
  - 5: Solent Maritime
  - 6: The New Forest
  - 15: River Itchen
- Ramsar sites
  - 7: Avon Valley
  - 8: Dorset Heathlands
  - 9: Solent and Southampton Water
  - 10: The New Forest
- Special Protection Areas (SPA)
  - 11: Avon Valley
  - 12: Dorset Heathlands
  - 13: New Forest
  - 14: Solent and Southampton Water
- Solent and Dorset Coast potential SPA (pSPA)

0 4 8 km

Map Scale @ A4: 1:330,000

LUC

 CB:VG EB:Goosen_V LUC 6270-03_r3_002_Fig3_1_EuroDesignations_A4L 24/05/2018 Source: Natural England, JNCC

Approach to HRA screening

3.6 As required under Regulation 105 of the Conservation of Habitats and Species Regulations 2017[20] an assessment was made of the 'likely significant effects' of the Local Plan Part 1. A risk-based approach involving the application of the precautionary principle was adopted in the screening assessment, such that a conclusion of 'no significant effect' was only reached where it was considered very unlikely, based on current knowledge and the information available, that a policy or site allocation would have a significant effect on the integrity of a European site.

Interpretation of 'likely significant effect'

3.7 Relevant case law helps to interpret when effects should be considered as a 'likely significant effect', when carrying out HRA of a land use plan.

3.8 In the Waddenzee case[21], the European Court of Justice ruled on the interpretation of Article 6(3) of the Habitats Directive (transposed by Reg. 102 in the Habitats Regulations), including that:

- 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); and
- 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).

3.9 Another opinion delivered to the Court of Justice of the European Union[22] 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."*

3.10 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 "that 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'.

Screening assessment

3.11 A screening assessment was undertaken to identify which components of the Local Plan Part 1 have the potential to have likely significant effects on European sites, either alone or in combination with other plans or projects. The results of the screening assessment are detailed in Appendix 4 and summarised in Chapter 4. Where a policy is not likely to have a significant effect the relevant cell was shaded green and the policy screened out from any further assessment. Where likely significant effects could not be ruled out for a component of the Local Plan Part 1, the relevant cell was shaded orange and the Local Plan component was subject to Appropriate Assessment in Chapter 5, taking into account mitigation, in order to conclude whether adverse effects on integrity can be ruled out.

3.12 To avoid repetition and aid consistency, reasons for screening out policies were categorised according to the following scheme and reference made to these 'reason codes' in the 'Justification' column of the screening table:

- A. General statement of policy / general aspiration;
- B. Policy listing general criteria for testing the acceptability /sustainability of proposals;

[20] *The Conservation of Habitats and Species Regulations 2017* (2017) SI No. 2017/1012, TSO (The Stationery Office), London.
[21] *ECJ Case C-127/02 "Waddenzee"* Jan 2004.
[22] *Advocate General's Opinion to CJEU in Case C-258/11 Sweetman and others v An Bord Pleanala* 22nd Nov 2012.

- C. Proposal referred to but not proposed by the plan;
- D. Environmental protection / site safeguarding policy;
- E. Policies or proposals which steer change in such a way as to protect European sites from adverse effects;
- F. Policy that cannot lead to development or other change;
- G. Policy or proposal that could not have any conceivable effect on a site;
- H. Policy or proposal the (actual or theoretical) effects of which cannot undermine the conservation objectives (either alone or in combination with other aspects of this or other plans or projects).

3.13 The screening assessment was undertaken prior to consideration of the mitigation which may be provided by other policies in the Local Plan Part 1 or by other policies and regulatory mechanisms. This is consistent with the 2018 European Court of Justice ruling[23] 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 the measures intended to avoid or reduce the harmful effects of the plan or project on that site".

Identification of other plans and projects which may have 'in combination' effects

3.14 Regulation 105 of the Amended Habitats Regulations 2017 requires an 'Appropriate Assessment' where "*a land use plan is likely to have a significant effect on a European 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, as well as considering the likely effects of the Local Plan Part 1 alone on European sites, it was necessary to consider whether there may be significant effects from the Local Plan Part 1 in combination with other plans or projects.

3.15 The potential for 'in combination' effects need only be considered for those Local Plan components identified as unlikely to have a significant effect alone, but which could act in combination with other plans and projects to produce a significant effect. This approach accords with recent guidance on HRA[24].

3.16 The first stage in identifying potential in combination effects involves identifying which other plans and projects in addition to the Local Plan Part 1 may affect the European sites that are the focus of the HRA.

3.17 Case law and guidance suggest that a plan or project at any of the following stages may be relevant to the in combination assessment:

- applications lodged but not yet determined;
- projects subject to periodic review e.g. annual licences, during the time that their renewal is under consideration;
- refusals subject to appeal procedures not yet determined;
- projects with consent but not yet started;
- projects started but not yet completed;
- known projects that do not need consent;
- proposals in adopted plans;

[23] ECJ judgement of 12 April 2018 in Case C-323/17, REQUEST for a preliminary ruling under Article 267 TFEU from the High Court (Ireland), made by decision of 10 May 2017, received at the Court on 30 May 2017, in the proceedings People Over Wind, Peter Sweetman v Coillte Teoranta

[24] DTA: The Habitats Regulations Assessment Handbook: http://www.dtapublications.co.uk/handbook/browse

- proposals in finalised draft plans formally published or submitted for final consultation or adoption.

3.18 The review of other plans focussed on Local Plans for authorities adjacent to New Forest District as well as Minerals Local Plans, Waste Local Plans and Local Transport Plans. The findings of any associated HRA work for those plans was also reviewed, where available.

3.19 Based on a review of the National Infrastructure Planning website[25] and discussion with New Forest District Council and the New Forest NPA, no other projects of significant scale that could result in in combination effects with the Local Plan Part 1 were identified.

3.20 Appendix 3 presents the review of other plans and projects, outlining the components of each plan or project that could have an impact on nearby European sites and considering the findings of the accompanying HRA work, where available. The following authorities' plans and HRA work were included:

- Bournemouth Borough Council;
- Christchurch Borough Council;
- Dorset County Council;
- East Dorset District Council;
- Hampshire County Council;
- Isle of Wight Council;
- New Forest National Park Authority;
- Poole Borough Council;
- Southampton City Council;
- Test Valley Borough Council;
- Wiltshire Council.

3.21 While this HRA report has presented the screening results for each policy and site allocation individually, which is consistent with current guidance, the screening assessments also considered the potential for the effects of each Local Plan Part 1 component to become significant in combination with other Local Plan Part 1 components or with other plans and projects.

Mitigation

3.22 Some of the potential effects identified during the HRA screening may be mitigated by other policies in the Local Plan Part 1, or by other plans or regulatory mechanisms. Such potential mitigation was only taken into consideration at the Appropriate Assessment stage in reaching conclusions. It is not appropriate for the HRA to rely solely generic policy protection for European sites such as that provided by *Policy 9: Nature conservation, biodiversity and geodiversity* since this does not provide sufficient certainty that the mitigation could be effectively delivered such that the screened in policies can be implemented without adverse effects in the integrity of European sites. Instead, the HRA took account of any existing policy or regulatory mechanism that directly addresses the identified potential effect.

[25] National Infrastructure Planning website http://infrastructure.planningportal.gov.uk/

4 HRA screening

4.1 As described in Chapter 3, a screening assessment was carried out to identify which components of the Local Plan Part 1 have the potential to result in likely significant effects on European sites and this was carried out prior to consideration of mitigation provided by other Local Plan Part 1 policies or other policies or regulatory mechanisms in accordance with the 'People over Wind' judgment. The results of the screening assessment are presented below.

Results of HRA screening

4.2 The screening of each Local Plan Part 1 component is detailed in Appendix 4.

4.3 It was found that likely significant effects, either from the policy alone or in combination with other Local Plan Part 1 policies or with other plans and projects, could be ruled out for most Local Plan Part 1 components. This was because the policies fall into one or more of the following screening categories:

- A. General statement of policy / general aspiration;
- B. Policy listing general criteria for testing the acceptability /sustainability of proposals;
- C. Proposal referred to but not proposed by the plan;
- D. Environmental protection / site safeguarding policy;
- E. Policies or proposals which steer change in such a way as to protect European sites from adverse effects;
- F. Policy that cannot lead to development or other change.

4.4 The Local Plan Part 1 policies for which the screening identified a potential for likely significant effects and the types of potential effect identified are summarised in Table 4.1. An Appropriate Assessment was therefore made of these potential effects, as presented in Chapter 5.

Table 4.1: Elements of Local Plan Part 1 flagged for which likely significant effects not ruled out

Screened in policy	Development for which policy screened in	Potentially significant effects
Policy 3: The strategy for locating new development Policy 4: The settlement hierarchy Policy 5: Meeting our housing needs (strategic allocations only) Policy 6: Sustainable economic growth Policy 23: Marchwood Port Strategic site allocations (SS1-SS17)	6,005 homes via strategic allocations SS 1-SS 18, including 1,380 homes at former Fawley Power Station 18 hectares of employment land within the residential-led mixed-use Strategic Site Allocations at Totton (SS 1), Fawley (SS 4) and East Ringwood (SS 14) Port and port-related uses at Marchwood Port, including commercial, economic and local employment generating purposes	Direct loss or physical damage to European sites Loss or damage to offsite supporting habitat Urban edge effects Changes in air quality Traffic collision risk Recreation pressure Changes in water quantity Changes in water quality

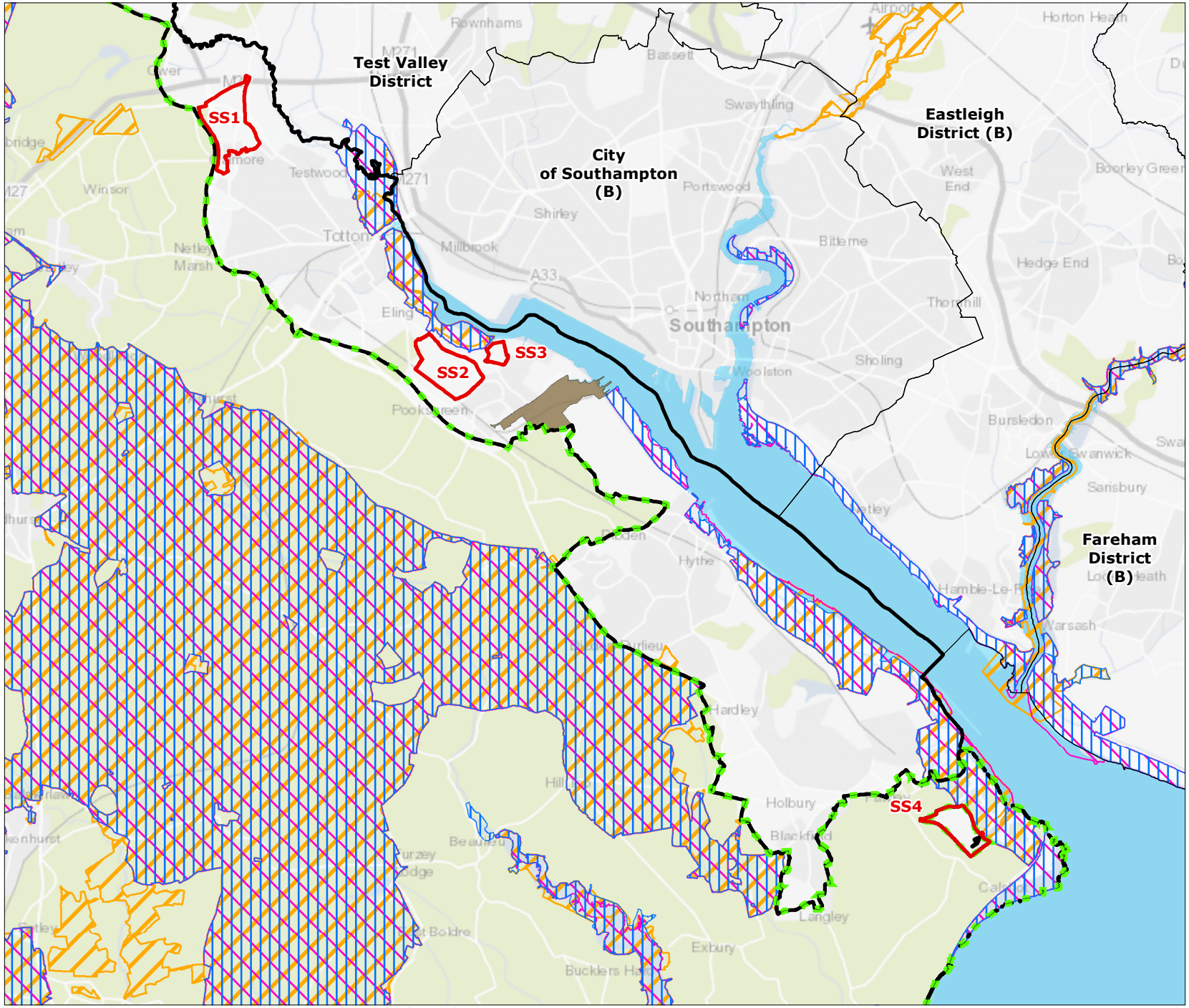
4.5 With the exception of the policy for development of Marchwood Port, all of the screened in policies are focussed on the provision of housing; some of these also provide for employment land. For ease of reference, Table 4.2 summarises the main locations at which the housing and housing-led development provided by the screened-in policies will occur. The dwelling capacities shown are estimated minimums and are subject to detailed testing at the planning application stage.

Table 4.2: Strategic housing allocations

Strategic Site	Homes to be provided	Employment land provision?
Totton and the Waterside (3,340 homes)		
SS 1 Land to the north of Totton	900*	Yes
SS 2 Land south of Bury Road, Marchwood	860*	No
SS 3 Land at Cork's Farm, Marchwood	150	No
SS 4 The former Fawley Power Station	1,380	Yes
South Coastal Towns (945 homes)		
SS 5 Land at Milford Road, Lymington	185	No
SS 6 Land to the east of Lower Pennington Lane, Lymington	100	No
SS 7 Land north of Manor Road, Milford on Sea	110	No
SS 8 Land at Hordle Lane, Hordle	160	No
SS 9 Land east of Everton Road, Hordle	100	No
SS 10 Land to the east of Brockhills Lane, New Milton	130	No
SS 11 Land to the south of Gore Road, New Milton	160	No
Avon Valley and Downlands (1,770 homes)		
SS 12 Land to the south of Derritt Lane, Bransgore	100	No
SS13 Land at Moortown Lane, Ringwood	480	No
SS 14 Land to the north of Hightown Road, Ringwood	270	Yes
SS 15 Land at Snails Lane, Ringwood	100	No
SS 16 Land to the north of Station Road, Ashford	140	No
SS 17 Land at Whitsbury Road, Fordingbridge	330	No
SS 18 Land at Burgate, Fordingbridge	350	No

* Around 40 additional homes will be achievable on each site if it can be demonstrated that primary schools education needs can be met by expanding existing schools rather than by new school provision.

4.6 The locations of the strategic allocations and that of Marchwood Military Port in relation to European sites are illustrated in Figure 4.1 to Figure 4.3.



HRA of New Forest District Local Plan Part 1

Figure 4.1 Strategic sites in Totton and the Waterside

- New Forest National Park Authority boundary
- New Forest District boundary
- Local Planning Authority boundary
- Marchwood Port
- Ramsar sites
- Special Protection Areas (SPA)
- Special Areas of Conservation (SAC)
- Solent and Dorset Coast potential SPA (pSPA)
- Reg 19. proposed strategic site

SS1: Land to the north of Totton

SS2: Land south of Bury Road, Marchwood

SS3: Land at Cork's Farm, Marchwood

SS4: The former Fawley Power Station (mixed-use)

Source: NFDC, Natural England, OS, JNCC

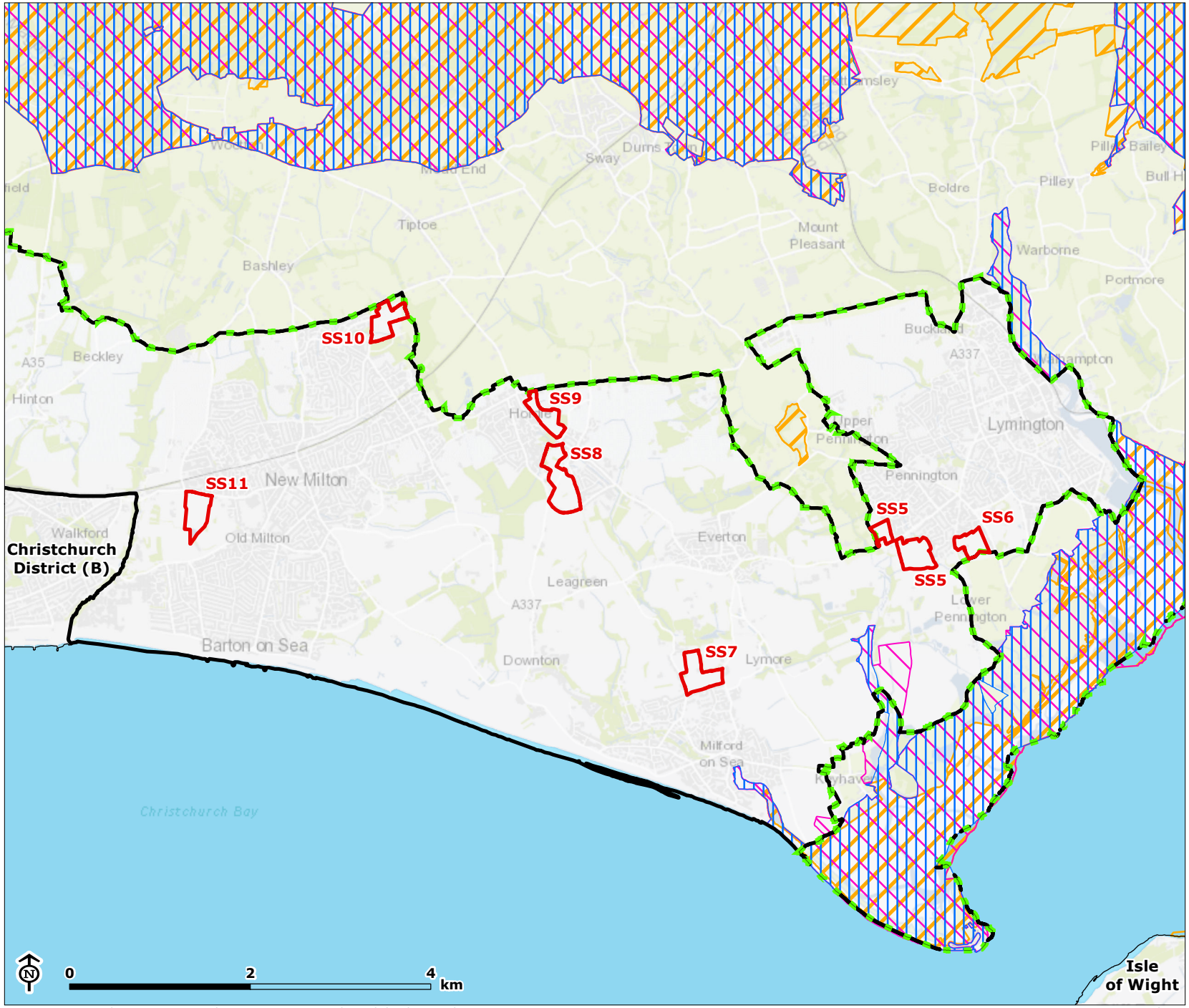
0 1 2 km

Map Scale @ A4: 1:100,000

LUC

New Forest District Council

CB:VG EB:Goosen_V LUCEDI 6270-03_r4_004_Fig4_1_Reg19_Proposed_StratSites_TottonWaterside_A4L 26/06/2018



HRA of New Forest District Local Plan Part 1

Figure 4.2 Strategic sites in South Coastal Towns

- New Forest National Park Authority boundary
- New Forest District boundary
- Local Planning Authority boundary
- Ramsar sites
- Special Protection Areas (SPA)
- Special Areas of Conservation (SAC)
- Solent and Dorset Coast potential SPA (pSPA)
- Reg 19. proposed strategic site

SS5: Land at Milford Road, Lymington

SS6: Land to the east of Lower Pennington Lane, Lymington

SS7: Land north of Manor Road, Milford on Sea

SS8: Land at Hordle Lane, Hordle

SS9: Land east of Everton Road, Hordle

SS10: Land to the east of Brockhills Lane, New Milton

SS11: Land to the south of Gore Road, New Milton

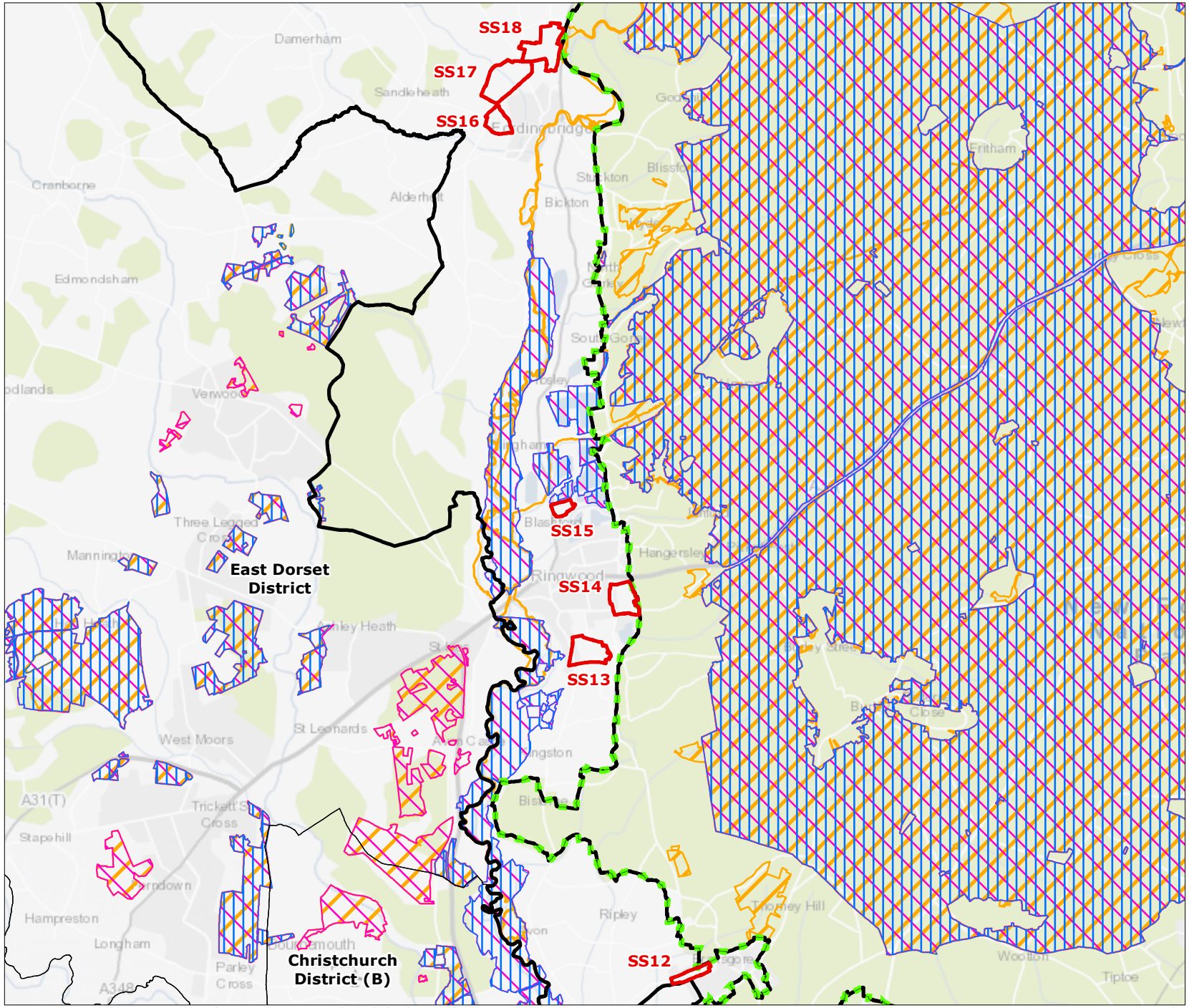
Source: NFDC, Natural England, OS, JNCC

Map Scale @ A4: 1:60,000

LUC

New Forest District Council

CB:VG EB:Goosen_V LUCEDI 6270-03_r4_005_Fig4_2_Reg19_Proposed_StratSites_SouthCoastalTowns_A4L 26/06/2018



HRA of New Forest District Local Plan Part 1

Figure 4.3 Strategic sites in Avon Valley and Downlands

- New Forest National Park Authority boundary
- New Forest District boundary
- Local Planning Authority boundary
- Ramsar sites
- Special Protection Areas (SPA)
- Special Areas of Conservation (SAC)
- Reg 19. proposed strategic site

SS12: Land to the south of Gore Road, New Milton

SS13: Land at Moortown Lane, Ringwood

SS14: Land to the north of Hightown Road, Ringwood

SS15: Land at Snails Lane, Ringwood

SS16: Land to the north of Station Road, Ashford

SS17: Land at Whitsbury Road, Fordingbridge

SS18: Land at Burgate, Fordingbridge

Source: NFDC, Natural England, OS, JNCC

0 1 2 km

Map Scale @ A4: 1:105,000

LUC

New Forest District Council

CB:VG EB:Goosen_V LUCEDI 6270-03_r4_006_Fig4_3_Reg19_Proposed_StratSites_Avon_Downlands_A4L 26/06/2018

5 Appropriate Assessment

5.1 As described in the HRA screening in Chapter 4, a need for Appropriate Assessment was identified in relation to the following types of likely significant effect of the Local Plan Part 1 on European sites:

- direct loss or physical damage to European sites;
- loss or damage to offsite supporting habitat;
- urban edge effects;
- changes in air quality;
- traffic collision risk;
- recreation pressure;
- changes in water quantity;
- changes in water quality.

5.2 This chapter considers each of these types of effect in turn and concludes whether adverse effects on the integrity of European sites can be ruled out.

Assumptions and information used

5.3 There are many uncertainties associated with assessing the potential for particular types of development to affect European sites. Therefore, to guide the assessment process and to provide consistency and transparency, a number of assumptions were made. These primarily seek to establish 'zones of influence' within which certain types of effect are capable of being significant or relevant significance thresholds or limits. Where possible, reference was made to relevant standards or research but in many cases it was necessary to base the assumptions on professional judgement, discussion with stakeholders[26] and current practice in HRA. The basis for the assumptions is documented in the assumptions section of each type of effect considered below. For the spatially specific components of the Local Plan, assessment of many of the potential types of effects was carried out using GIS data to determine the proximity of development locations to the scoped-in European sites; these distances were then compared to the assumed zones of influence.

Direct loss or physical damage to European sites

5.4 This HRA topic considers the potential effects of the development proposed by the Local Plan Part 1 in terms of direct loss of or physical damage to designated habitats or direct mortality of designated species.

HRA assumptions

5.5 It was assumed that the potential exists for adverse effects on integrity, prior to consideration of mitigation, if a Local Plan Part 1 policy or site allocation would result in development which overlaps with any European site.

5.6 Habitat loss/damage and mortality of designated species on-site only needed to be considered in relation to the European sites that intersect with the Local Plan Part 1 area, i.e.:

[26] Assumptions were developed in consultation with Natural England and other stakeholders, as described in Chapter 1 and Appendix 5

- Dorset Heaths SAC, Dorset Heathlands and Ramsar site;
- The New Forest SAC, SPA and Ramsar site (very small area of intersection with the plan area);
- River Avon SAC, Avon Valley SPA and site;
- Solent Maritime SAC, Solent and Southampton Water SPA and Ramsar site.

Potential for effects from Local Plan Part 1 prior to mitigation

5.7 The allocated strategic sites with defined boundaries in the Local Plan Part 1 (SS 1 to SS 18) do not overlap any European sites therefore direct effects due to construction within the boundaries of European sites can be ruled out.

5.8 In relation Policy 23, which supports commercial and port-related development at Marchwood Port, the terrestrial part of the site does not overlap any European sites so that direct loss/damage due to construction in this area can also be ruled out. The nearby area of foreshore, however, forms part of Solent and Southampton Water SPA and Ramsar site and enhancement of port operations could potentially require development of extended piers or jetties in this area or dredging to extend the deep water channel, with potential adverse effects on European designations in Southampton Water.

Existing mitigation

5.9 Supporting text to Policies 23 and 24 requires that development proposals be subject to a development-specific HRA. In addition, should proposals for development at Marchwood Port reach the scale to trigger the NSIP process then it would be subject to a project-specific HRA. The matters required to be addressed in a Local Impact Report are listed in supporting text to Policies 23 and 24 and include HRA of effects on the Solent and Southampton Water Ramsar Site and SPA, on the Solent Maritime SAC, and on the New Forest SPA and SAC.

Conclusions and recommendations

5.10 Since there are not yet any firm proposals as to the commercial and/or port-related development to take place at this site, it is inappropriate to carry out detailed assessment of potential direct loss/damage effects on the European designations at this stage. There is no reason to believe that *Policy 23: Marchwood Port* policy could not be implemented without significant direct loss/damage effects on Solent and Southampton Water SPA and Ramsar site, given appropriate safeguards during its design and construction. It is also apparent that the opportunity represented by commercial and/or port-related development at Marchwood is not fundamental to delivery of the Local Plan Part 1 vision and objectives and that the policy could therefore be removed should it not prove feasible to develop the site without adverse effects on the integrity of European sites. In these circumstances it is appropriate to defer HRA to the development management process and reliance can therefore be placed on the requirement in supporting text to Policy 23 for proposals to be accompanied by development-specific HRA.

5.11 **Adverse effects on the integrity of any European site in the form of direct loss/damage can therefore be ruled out for the Local Plan Part 1 both alone and in combination.**

Loss or damage to offsite supporting habitat for qualifying bird populations

Background

5.12 The HRA screening identified that the Local Plan Part 1 allocates a number of development sites in areas where certain qualifying SPA and Ramsar bird species may make use of offsite habitat for foraging, roosting and loafing. Based on an examination of the qualifying features of scoped in European sites and comments provided by Natural England and Hampshire and Isle of Wight Wildlife Trust (HIWWT) during the consultation at earlier stage of plan preparation, the potentially affected European sites are Avon Valley SPA and Ramsar site, Dorset Heathlands SPA and Ramsar

site, New Forest SPA, and Solent and Southampton Water SPA and Ramsar site. As a result, Appropriate Assessment was undertaken, as detailed below, to determine whether the loss of offsite habitat would result in adverse effects on the integrity of any of these European sites.

Approach

5.13 In response to comments provided by Natural England and HIWWT during the consultation process, the Appropriate Assessment commenced with a detailed desk-based study to identify potential impacts from proposed site allocations on offsite habitat used by the qualifying bird species of the European sites. For each of the proposed development allocations, sites were reviewed using aerial imagery to determine their potential suitability for supporting qualifying species. This included identifying broad habitat types present, current land usage, shape and size of site, degree of openness, and information regarding the context of the site within the wider landscape, including in terms of habitat connectivity and proximity to habitats of known importance for qualifying birds. This review also considered the presence of potential adverse factors such as proximity of sources of disturbance and/or habitat features likely to reduce the potential for qualifying bird species, such as the effect of prominent edge features in reducing the openness typically preferred by foraging waders and wildfowl.

5.14 Desk-based studies of potential development locations carried out for NFDC by Hampshire Biodiversity Information Centre (HBIC) were then reviewed to identify whether records of relevant bird species have been recorded within the site allocations, or in close proximity. Where necessary, the habitat types affected were cross-checked against the habitat preferences identified for specific bird species. Where habitats of potential importance for specific bird species are likely to be affected, a more detailed assessment was undertaken which used the following additional information sources to identify whether such habitats are likely to be important for the bird species:

- Brent goose/wader strategy data for the Solent (available from Solent Forum);
- Various Natural England/New Forest Authority Bird Survey reports (e.g. for nightjar);
- HBIC bird records and GIS files;
- HIWWT information relating to records of wintering woodlark in the area on the south-west side of Bransgore and west of Godwinscroft;
- HIWWT information relating to records of black-tailed godwit on the Beaulieu Estuary and between the Lymington River and Hurst, and also around the Avon Valley, downstream of Ringwood, between Sopley and Bisterne and around Blashford.

Assessment of importance of allocated sites for SPA/Ramsar birds

5.15 To determine the potential importance of each site allocation to provide supporting offsite habitat it was necessary to establish which habitat types have the potential to be of importance for each of the bird species for which the SPA and Ramsar sites are designated. Known habitat preferences for each species, as set out in Table 5.1, were taken from *Birds of the Western Palearctic* (British Trust for Ornithology), and further refined in light of local preferences via consultation with Natural England officers and HIWWT.

5.16 The habitat types present within each allocation (taking into account any of the factors listed above) were then cross referenced against the bird habitat preferences to determine the suitability of offsite areas of land for SPA and Ramsar bird species.

5.17 During the HRA consultation process, Natural England has confirmed that suitable habitat for the designated bird species of Avon Valley SPA and Ramsar site only exists in the Harbridge area to the west of the European site and north of Ringwood.

5.18 The assessment of the suitability of offsite habitats within the site allocations is provided below for each of the SPA/Ramsar species.

Table 5.1 Assessment of offsite habitat suitability by species

Bird species	Season to which qualifying species relate[27]	Broad habitat types of potential importance	Potential for reliance on habitats within sites allocated by New Forest District Local Plan Part 1
Avon Valley SPA			
Bewick's swan	Winter	Arable; grazed pasture	**Yes – large numbers will regularly forage in short pasture and arable habitats such as those which occur within the site allocations.**
Gadwall	Winter	Riparian; open water	No – key habitat types not affected
Avon Valley Ramsar site			
Northern pintail	Winter	Open water; coastal wetlands	No – key habitat types not affected
Black-tailed godwit	Winter	Coastal wetlands; wet grasslands; grazed pasture; arable. Grasslands managed as meadows, especially when grazed and hay-cut and flooded in winter are also favoured. Outside the breeding season, favoured habitats include sewage farms, lake margins, tidal marshes, mudflats and sheltered coastal inlets.	**Yes – large numbers will regularly forage in pasture and arable habitats such as those which occur within the site allocations.**
Lesser black-backed gull	Spring/autumn passage	Open water; coastal wetlands; riparian; arable; grazed pasture	**Yes – large numbers will regularly forage in short pasture and arable habitats such as those which occur within the site allocations.**
Little grebe	Winter	Riparian; open water	No – key habitat types not affected
Little egret	Winter	Riparian; open water	No – key habitat types not affected
Greater white-fronted goose	Winter	Arable; grazed pasture	**Yes– large numbers will regularly forage in short pasture and arable habitats such as those which occur within the site allocations.**
Northern shoveler	Winter	Open water	No– key habitat types not affected
Dorset Heathlands SPA			
Dartford warbler	Summer (breeding)	Heathland	No– key habitat types not affected
Nightjar	Summer (breeding)	Heathland and open woodlands Foraging habitats additionally include tree lines; hedgerows; grazed pasture; meadows	**Yes – nightjar will forage several km from their heathland nest sites, typically utilising woodland edges, linear habitats and invertebrate rich grasslands.**
Woodlark	Summer (breeding)	Heathland; open woodlands; arable (winter)	**Yes – this species often congregate within arable habitats to feed during the early part of winter.**
Hen harrier	Winter	In winter, often on arable farmland or rough pastures, or on heathland, coastal sand-dunes, and marshy areas.	No - Wide ranging during winter and typically reliant on coastal, river floodplains and heathland

[27] Emails to LUC during August 2016

Bird species	Season to which qualifying species relate[27]	Broad habitat types of potential importance	Potential for reliance on habitats within sites allocated by New Forest District Local Plan Part 1
		Habitat selection largely governed by availability of preferred prey species which can be seized in the open; otherwise, not discriminating but choosing spacious, relatively undisturbed landscapes rather than areas in intensive human use.	habitats.
Merlin	Winter	Various open habitats including heathland; coastal wetlands; arable; grasslands	No – Wide ranging during winter and unlikely to be reliant upon the pastoral and arable field enclosures included in strategic site allocations.
Dorset Heathlands Ramsar site			
As per SPA above (Dartford warbler, hen harrier and merlin only)	As above	As per Dorset Heathlands SPA above	No - See above
New Forest SPA			
Dartford warbler, nightjar, woodlark	Summer (breeding)	See Dorset Heathlands SPA above	See above
Honey buzzard	Summer (breeding)	Woodland and associated heathland	No – key habitat types not affected
Hen harrier	Winter	Heathland; coastal wetlands; reedbed; rough grassland; arable	No – key habitat types not affected
Solent and Southampton Water SPA			
Common tern	Summer (breeding)	Open water; riparian; coastal wetland	No – key habitat types not affected
Little tern	Summer (breeding)	Open water; coastal wetland	No – key habitat types not affected
Mediterranean gull	Summer (breeding)	Open water; coastal wetland	No – key habitat types not affected
Roseate tern	Summer (breeding)	Open water; coastal wetland	No – key habitat types not affected
Sandwich tern	Summer (breeding)	Open water; coastal wetland	No – key habitat types not affected
Black-tailed godwit	Winter	See above	**Yes – large numbers recorded utilising pastoral and arable habitat types for foraging during winter.**
Dark-bellied brent goose	Winter	On leaving breeding quarters, resorts to shallow sea coasts and estuaries, especially with extensive mudflats rich in sea grass. Strongly attached to intertidal feeding zones, but in Britain since 1970's increasing numbers have	**Yes - large numbers recorded utilising pastoral and arable habitat types for foraging during winter.**

Bird species	Season to which qualifying species relate[27]	Broad habitat types of potential importance	Potential for reliance on habitats within sites allocated by New Forest District Local Plan Part 1
		moved inland to feed on grass and cultivated crops. When not feeding, prefers to rest or sleep on sea surface.	
Ringed plover	Winter	A bird of sea coasts. Secondarily occupies adjoining hinterlands up to substantial distance inland, where estuaries, rivers, lakes, tundra, gravel beds, sand bars, grasslands of spare and low growth, or other suitable well-drained terrain exists. Whether breeding, migrating or wintering, tends to be most numerous and concentrated on wide sandy or shingle tidal beaches, with access to suitable resting or nesting places above high-water mark.	**Yes – this species may utilise bare stony ground and ephemeral/short grasslands such as those which may occur at Fawley Power Station.**
Teal	Winter	On passage or in winter will frequent open habitats such as shallow tidal coasts, large estuaries, salt-marshes, and lagoons, brackish or saline, flooded fields, and artificial waters such as reservoirs devoid of vegetation.	No – whilst this species will utilise flooded fields, it is typically dependent on wetlands, floodplains, and open water during winter.
Bird assemblage (species listed above plus great crested grebe, cormorant, wigeon, redshank, red breasted merganser, grey plover, lapwing, dunlin, curlew and shelduck)	Winter	As above Lapwing - Requires ready access to soil carrying appreciable biomass of surface or subsurface organisms, not arid and preferably moist or near saturation. Invariably chooses unenclosed terrain affording unbroken all-round views. Throughout historical times, natural habitat has been encroached with suitable substitutes created through farming, with a shift from natural to agricultural land. Grey plover - After breeding, some use of inland staging points, often by lakes on sand bars, mudflats, pools, and moist places, including short grassy fields and floodlands. Curlew - After breeding season, shifts mainly to marine coastal habitat, especially mudflats and sands extensively exposed at low tide, resting on adjoin saltmarshes, foreshores, and floodlands. Rocky beaches with many pools, muddy estuaries and comparable habitats beside large inland waters, including riverside and swamp edges are also favoured. This species is known to regularly utilise coastal grasslands and arable fields within search area. Wigeon - Winter habitat lowland and largely maritime, especially along coasts where shallow, fairly sheltered waters and extensive tracts of mud, sand, or salt marsh offer sustenance and security for gatherings. Freshwater and brackish lagoons and tracts of flooded grassland also attractive, and may be used in preference to coastal waters.	See species above. **Yes** - Lapwing, dunlin, grey plover, curlew, and widgeon will forage on arable and pastoral fields. No – other species

Bird species	Season to which qualifying species relate[27]	Broad habitat types of potential importance	Potential for reliance on habitats within sites allocated by New Forest District Local Plan Part 1
Solent and Southampton Water Ramsar site (species in addition to SPA of same name)			
Black headed gull	Summer (breeding)	Coastal wetland; open water; riparian; grazed pasture; arable	**Yes (see above)**
Little egret	Spring/autumn	Riparian; open water	No – key habitat types not affected
Spotted redshank	Spring/autumn	Coastal wetland	No – key habitat types not affected
Greenshank	Spring/autumn	On leaving breeding grounds, continental birds, especially, pause at inland flooded meadows, dried up lakes, sandy bars, and marshes on the way to winter resorts. These are varied including seashores which are not too rocky or dominated by cliffs, salt marshes, pools on tidal reefs, estuaries and muddy or sandy tidal inlets, lagoons, inland rivers, lakes, reservoirs, pools, ponds, sewage farms, sand banks, and mud spits.	**Yes – this species will utilise a wide range of habitat types outside the breeding season including wet grasslands.**
Slavonian grebe	Winter	Coastal wetland; open water	No – key habitat types not affected
Black necked grebe	Winter	Coastal wetland; open water	No – key habitat types not affected
Cormorant	Winter	Coastal wetland; open water; riparian	No – key habitat types not affected
Water rail	Winter	Wetland; riparian; reedbed (densely vegetated)	No – key habitat types not affected

5.19 The review of habitat types located within the site allocations, in light of individual bird species preferences, identified the following species as being potentially susceptible to the loss of offsite habitat:

Bewick's swan;

Lesser black-backed gull;

Dunlin;

Black-tailed godwit;

Dark bellied brent goose;

Greater white-fronted goose;

Nightjar;

Woodlark;

Widgeon;

Teal;

Grey plover;

Lapwing;

Curlew;

Greenshank;

Ringed plover.

5.20 Detailed assessments of habitat suitability for each site allocation are provided in Appendix 6 and summarised below and in Table 5.1:

5.21 **SS 1 Land to the north of Totton** – The suitability of this allocation for coastal SPA birds is greatly reduced by the small size of individual field enclosures and the presence of negative edge factors. Pasture within the allocation may be utilised by geese, lapwing and dunlin on occasion for foraging but is unlikely to support notable numbers or be of importance for maintaining

populations of SPA. Small areas of potential marshy grass/mire habitat in the vicinity of 'Bog Plantation' have the potential to provide suitable habitat for nesting lapwing, curlew and dunlin but given the small extent of habitat parcels, lack of openness and proximity of woodlands and trees, together with an absence of historic records, this habitat is unlikely to be important for these species. In summary, habitats within the allocation are unlikely to represent an important offsite foraging habitat upon which these birds rely or support notable numbers of breeding waders which contribute to the maintenance of the SPA/Ramsar sites either alone or in-combination.

5.22 **SS 2 Land south of Bury Road, Marchwood** - The majority of the site is unsuitable for SPA/Ramsar birds due to the current land use (including solar farm and active minerals site) and/or the small size of individual field enclosures. In addition, much of this site has been subject to ongoing change and disturbance as part of active mineral workings as indicated by historic maps and as a result the extent of habitat with potential to support SPA/Ramsar birds, including open water and marshy ground, is now significantly reduced. Furthermore, a well-used metalled public footpath runs along the eastern edge of the site, and therefore regular disturbance events are likely to further reduce the suitability of supporting SPA birds. This site is not recognised as being important for SPA birds by the Solent Wader and Brent Goose Strategy (SWBGS). The site is located close to the Solent and Southampton Water SPA and Ramsar site and wetland habitats still occur within the site and the open water and ephemeral habitat of the site but for the reasons provided above, this site is not considered to be important in maintaining SPA bird populations either alone or in-combination.

5.23 **SS 3 Land at Cork's Farm, Marchwood** - Despite the site's proximity to the Solent and Southampton Water SPA and Ramsar site, the small size of individual field enclosures and presence of negative edge factors is likely to significantly reduce suitability for SPA/Ramsar birds by reducing the openness they typically prefer for offsite foraging. Distance from the New Forest SPA and severance from the SPA by major roads and existing urban areas results in a level of negligible importance of this site for New Forest SPA species, either alone or in-combination.

5.24 **SS 4 The former Fawley Power Station** – The majority of the site comprises hardstanding, buildings and bare ground unsuitable for SPA/Ramsar birds. However, the southern part of the site is included as a 'primary support area' (Site reference NF156) by the SWBGS). Given the site's proximity to the Solent and Southampton Water SPA and Ramsar site, its lack of existing public disturbance and the presence of large areas of open ground which may provide some foraging and breeding habitat (e.g. ringed plover) for SPA/Ramsar birds, there is potential for open areas to support qualifying bird species of Solent and Southampton Water SPA and Ramsar site, which in combination with other site allocations may contribute to maintaining the populations of the SPA/Ramsar species. Given the size of this site, together with its proximity to the SPA/Ramsar, it is likely that if site surveys revealed a requirement for mitigation, the provision of such measures would be likely to be capable of being achieved within the site allocation.

5.25 **SS 5 Land at Milford Road, Lymington** - Small field sizes and the presence of negative factors including prominent edge features, proximity to urban area and distance from SPA/Ramsar sites of >1 km, are likely to significantly reduce suitability for SPA/Ramsar birds. Records of large numbers of black-tailed godwit, curlew and dunlin occur in the wider vicinity of the site and therefore the fields may be of some importance for these species. However such fields are common and widespread within the landscape including those of greater suitability for SPA birds. Furthermore, this site allocation is not recognised as being important by the SWBGS. Therefore, for the reasons provided above, this site is not considered to be important in maintaining SPA bird populations either alone or in-combination.

5.26 **SS 6 Land to the east of Lower Pennington Lane, Lymington** - Small field sizes and the presence of negative factors including prominent edge features, proximity to urban area and distance from SPA/Ramsar sites of >1 km is likely to significantly reduce suitability for SPA birds. Nevertheless, records of large numbers of black-tailed godwit, curlew and dunlin occur in the vicinity and therefore the fields may be utilised by these species to some extent, albeit for the reasons provided above this allocation is unlikely to support significant numbers of birds. Furthermore, this site allocation is not recognised as being important by the SWBGS. Therefore,

this site is not considered to be important in maintaining SPA bird populations either alone or in-combination.

5.27 **SS 7 Land north of Manor Road, Milford on Sea** - The site is likely to be of low importance for SPA/Ramsar birds either alone or in-combination due to habitat severance, distance from SPA/Ramsar sites and presence of negative factors including small field size, presence of edge factors such as woodland and urban areas, and irregular shape of field enclosures which reduces the distance to edges and minimises the 'openness' favoured by target SPA/Ramsar bird species.

5.28 **SS 8 Land at Hordle Lane, Hordle** – This site is considered likely to be of low importance for SPA/Ramsar birds either alone or in-combination due to its location within the urban area of Hordle, the small size of the field, and the presence of negative edge factors and distance from the SPA/Ramsar sites.

5.29 **SS 9 Land east of Everton Road, Hordle** - This site is considered likely to be of low importance for SPA/Ramsar birds either alone or in-combination due to its location within the urban area of Hordle, the small size of the field, and the presence of negative edge factors and distance from SPA/Ramsar sites.

5.30 **SS 10 Land to the east of Brockhills Lane, New Milton** – This site is considered likely to be of low importance for SPA birds either alone or in-combination due to its distance from SPA/Ramsar sites, location within the urban area, small size of fields, and presence of negative edge factors such as woodland and residential development.

5.31 **SS 11 Land to the south of Gore Road, New Milton** – This site supports an extensive area of arable crop in the north of the site, and a similarly large expanse of pastoral habitat in the south of the site. The site provides suitable foraging habitat for SPA/Ramsar waders and wildfowl but is located approximately 7 km from Solent and Southampton Water SPA and Ramsar site and is therefore considered to be of negligible importance for populations of SPA/Ramsar birds either alone or in-combination.

5.32 **SS 12 Land to the south of Derritt Lane, Bransgore** - This site provides extensive areas of arable habitat in a location in proximity to other fields where HIWWT has recorded notable numbers of wintering woodlark. The arable habitats within the site provide suitable habitat for supporting this species during winter and therefore it has the potential to be important in contributing to the maintenance of the New Forest SPA woodlark population during winter in combination with other similar habitat types in local area.

5.33 **SS 13 Land at Moortown Lane, Ringwood** - The site is located in close proximity to the Avon Valley SPA and Ramsar site, and supports several large field enclosures, including arable and pastoral land uses which may provide foraging habitat for Bewick's swan, black-tailed godwit and lesser black backed gull. As a result, there is potential for parts of the site to be used by these species and be important in contributing to the availability of offsite foraging habitat. While the loss of this area would not alone result in adverse effects on integrity, it may combine to result in adverse effects on integrity in combination or cumulatively with other losses.

5.34 **SS 14 Land to the north of Hightown Road, Ringwood** - This site is enclosed by the urban area of Ringwood and lacks functional connectivity with the Avon Valley SPA and Ramsar site. The site is considered of low value for qualifying species of the New Forest SPA. Therefore, the site's importance for qualifying bird species is considered to be low either alone or in-combination.

5.35 **SS 15 Land at Snails Lane, Ringwood** - The suitability of the site for supporting significant numbers of SPA/Ramsar birds is restricted by its recent establishment/restoration, and its enclosure by woodland and treelines around much of the site periphery. Nevertheless, grassland habitat is likely to provide some opportunity for foraging Bewick's swan and black-tailed godwit, qualifying species of the Avon Valley SPA and/or Ramsar site. As a result, there is potential for parts of the site to be used by these species and to contribute to maintaining the availability of offsite foraging habitat in-combination with other site allocations.

5.36 **SS 16 Land to the north of Station Road, Ashford** - This site is considered likely to be of low importance for qualifying bird species either alone or in-combination due to distance from the Avon Valley SPA and Ramsar site and a lack of functional connectivity with the New Forest SPA.

5.37 **SS 17 Land at Whitsbury Road, Fordingbridge** - This site is considered likely to be of low importance for qualifying bird species either alone or in-combination due to distance from the Avon Valley SPA and Ramsar site and a lack of functional connectivity with the New Forest SPA.

5.38 **SS 18 Land at Burgate, Fordingbridge** - Whilst this site provides suitable habitat for qualifying species associated with the Avon Valley SPA and Ramsar site, it is unlikely to be important as an offsite foraging resource either alone or in-combination due to a distance of over 3km from the SPA/Ramsar site and separation from the SPA by the town of Fordingbridge.

5.39 The assessment concluded that none of the strategic site allocations would individually be likely to be important in maintaining populations of SPA/Ramsar birds for the reasons outlined in Appendix 6. However, the following strategic site allocations were identified as potentially contributing, in combination with one another, to being of potential importance for maintaining populations of SPA/Ramsar birds:

- SS 4 The former Fawley Power Station site;
- SS 12 Land to the south of Derritt Lane, Bransgore;
- SS 13 Land at Moortown Lane, Ringwood;
- SS 15 Land at Snails Lane, Ringwood.

5.40 The remaining strategic site allocations are considered likely to be of low importance for the maintenance of the populations of qualifying SPA/Ramsar bird species, both alone and in combination.

Existing mitigation

5.41 Supporting text to strategic site allocation policies SS 4, SS 12, SS 13, and SS 15 states that for proposals at each of these sites: *"Site specific bird surveys will be required to confirm their contribution to in-combination loss of supporting habitat to internationally designated species and to be mitigated as required"*.

Conclusions and recommendations

5.42 Following the assessment detailed in Appendix 6, which relied on an assessment of site characteristics, existing bird records, and information provided by the SWBGS, it was concluded that the loss of offsite habitat within strategic site allocations, when each is considered individually, would not result in adverse effects on the integrity of European Sites.

5.43 With the exception of site SS 4, habitat types which occur at the site allocations are common and widespread within the wider landscape, which generally includes areas with much greater suitability for SPA species. Therefore, even in combination, it is considered unlikely that significant numbers of SPA/Ramsar bird species would be dependent upon these allocated sites.

5.44 However, the southeast part of SS 4 The former Fawley Power Station site is included within the SWBGS. This site is considered unlikely to support sufficient numbers of SPA birds, which if affected would constitute an adverse effect on integrity. However, in-combination, including with an adjacent housing allocation (SP 25) proposed as part of the New Forest National Park Local Plan, its development could result in adverse effects on integrity in the absence of appropriate mitigation and safeguards. In order to provide sufficient certainty that in-combination effects will be avoided, the appropriate project level survey and mitigation safeguards described below will be required. If SPA/Ramsar birds are recorded as being dependent upon this site, it is considered likely that mitigation could be achieved as part of the scheme design given the size of the site and its proximity to the SPA. But in the unlikely event that mitigation cannot be provided within the site allocation, a commitment to provision of appropriate offsite strategic mitigation will be required. In support of this approach, the SWBGS confirms that:

"*The Primary Support Areas are land that, when in suitable management, make an important contribution to the function of the Solent waders and brent goose ecological network. However, it is generally considered that, where on-site avoidance or mitigation measures are unable to manage impacts, there may be opportunities for the loss or damage to these areas to be off-set by the provision of new sites to ensure a long term protection and enhancement of the wider wader and brent goose ecological network*".

5.45 Primary Support Area NF156 comprises an area of 52.71ha, of which 3.4ha (6.4%) is located within site allocation SS 4. This represents c.7.4% of the site allocation. As a result, there is likely to be a reasonable likelihood of being able to retain and provide appropriate mitigation habitat within the site allocation, or to enhance the remaining area of NF156 to provide habitat of increased suitability for target SPA species.

5.46 Prior to consideration of mitigation, it was not possible to rule out the potential for adverse effects on the integrity of qualifying SPA/Ramsar bird populations from the following strategic site allocations in combination with one another: SS 4 The former Fawley Power Station; SS 12 Land to the south of Derritt Lane, Bransgore; SS 13 Land at Moortown Lane, Ringwood, and SS 15 Land at Snails Lane, Ringwood. In response, therefore, the allocation policies for each of these strategic sites requires site specific bird surveys to confirm their contribution to in-combination loss of supporting habitat to internationally designated species and to be mitigated as required.

5.47 This provides the necessary level of certainty that the loss of habitat associated with these site allocations will not result in adverse effects on the integrity of the European Sites. It is considered acceptable to defer this further evidence gathering and HRA work to the project/development management stage because, as confirmed in Appendix 6, each of these sites is considered unlikely on its own to be of importance in maintaining SPA/Ramsar bird populations. With the exception of site SS 4, habitat types which occur at the site allocations are common and widespread within the wider landscape, which generally includes areas with much greater suitability for SPA species. Therefore, even in combination, it is considered unlikely that significant numbers of SPA/Ramsar bird species would be dependent upon these allocated sites. The mitigation measures proposed herein are therefore considered highly precautionary and unlikely to be required but they provide sufficient certainty that in the unlikely event that significant numbers of birds would be affected, appropriate mitigation would be provided, and adverse effects on integrity prevented. If required, appropriate mitigation which seeks to maintain the extent and quality of available offsite foraging habitat could be achieved, either on site, for example through the provision of wetland habitat, or via the provision of strategic offsite habitat provision.

5.48 **Adverse effects on the integrity of any European site in the form of loss or damage to offsite supporting habitat for qualifying bird populations can therefore be ruled out for the Local Plan Part 1 both alone and in combination.**

Urban edge effects

5.49 A variety of different types of effect are associated with increased human populations close to sensitive European sites (e.g. noise pollution, light pollution, increased numbers of predators such as foxes and crows, increased incidence of fires). This HRA topic considers the potential effects of the Local Plan Part 1 relating to these 'urban edge effects'.

HRA assumptions

5.50 Based on the HRA work carried out for adopted Local Plan documents plus discussion with Natural England, the most important types of urban edge effect in the context of development in the New Forest are thought to be:

- cat predation - hunting by domestic cats;
- increased fly-tipping - particularly risk of introduction of invasive alien species from garden waste.

5.51 It was therefore assumed that the potential for urban edge effects to be significant only exists for residential development (including gypsy and traveller sites and rural exception sites but excluding visitor accommodation/ tourism use as it is unlikely that these will be associated with cats on the premises or domestic garden waste). The HRA assumed that, prior to mitigation, the potential for adverse effects on integrity exists if residential development will occur within 400 m of European sites with qualifying features sensitive to these types of effect. Based on their designated features and the pressures and threats facing them (see Appendix 1), these were judged to be:

- Dorset Heaths SAC, and Dorset Heathlands SPA and Ramsar site (but effects on these can be ruled out as the Local Plan Part 1 area is more than 400 m from the European site boundaries); and
- New Forest SAC, SPA and Ramsar site.

5.52 A distance of 400 m was chosen because:

- New Forest SPA is located within New Forest National Park and Policy CP1 of the adopted Core Strategy for New Forest NPA, which was agreed with Natural England, states that:

  "…any housing that is proposed to be located within 400 metres of the boundary of the New Forest Special Protection Area (SPA) will be required to demonstrate that adequate measures are put in place to avoid of mitigate any potential adverse effects on the ecological integrity of the SPA."

- Natural England's view, documented in The Dorset Heathlands Planning Framework 2015-2020[28], is that residential development within 400 m of the Dorset Heathlands European designations is likely to have a significant adverse effect, either alone or in combination with other developments due to a variety of 'urban effects', including cat predation of ground nesting birds.
- Natural England confirmed at a New Forest HRA stakeholder meeting on 9/8/16 that it is happy with the use of a 400 m distance when screening for potential 'urban edge effects from construction or occupation of buildings' on heathland sites.

5.53 It should be noted that while the Dorset Heathlands European sites have a number of similar designated features to those of the New Forest, the New Forest is considered to be more resilient and hence less likely to suffer adverse effects on its integrity as a result of the potential harmful effects of housing within 400 m of its boundary. This is because the New Forest provides a larger (more than three times the area) and less fragmented area of habitat than the Dorset Heathlands and therefore has a much lower edge to area ratio, so that urban edge effects are likely to be much less pronounced. As a National Park, the New Forest also has a more developed system of habitat and visitor management than Dorset Heathlands. These important differences mean that a different approach to urban edge effects is justified in the New Forest compared to the virtual ban on housing development within 400 m of Dorset Heathlands imposed by the Dorset Heathlands Planning Framework.

Potential for effects from Local Plan Part 1 prior to mitigation

5.54 Neither Marchwood Port nor any of the strategic site allocations are located within 400 m of Dorset Heaths SAC, Dorset Heathlands SPA, Dorset Heathlands Ramsar site, The New Forest SAC, New Forest SPA, or New Forest Ramsar site.

Existing mitigation

5.55 None required.

Conclusions and recommendations

5.56 **Adverse effects on the integrity of any European site in the form of disturbance and other urban edge effects from construction or occupation of buildings can be ruled out for the Local Plan Part 1 both alone and in combination.**

Changes in air quality

5.57 This HRA topic considers the potential effects of air pollution from new or more congested roads as a result of new development provided for the Local Plan Part 1, resulting in toxic contamination or nutrient enrichment of habitats.

[28] The Dorset Heathlands Planning Framework 2015-2020 Supplementary Planning Document: An implementation plan to mitigate the impact of new housing development upon the Dorset Heaths Special Protection Area, 2016.

HRA assumptions

5.58 Increased traffic flows as a result of the amount and broad location of development proposed by the Local Plan Part 1 alone or in combination with other drivers of traffic growth could adversely affect local air quality. This is a potentially significant issue for the HRA where roads are located close to European sites that are sensitive to air pollution.

5.59 The assessment methodology in the Design Manual for Roads and Bridges (Department for Transport, 2007) states that there is a potential for significant effects where road corridors are within 200 m of a European site having interest features that are sensitive to changes in air quality.

Potential for effects from Local Plan Part 1 prior to mitigation

5.60 Based on an examination of their interest features and their locations, scoped-in European sites that may be sensitive to changes in air quality that are within 200 m of major roads (motorways or 'A' roads) are:

- Dorset Heaths SAC, and Dorset Heathlands SPA and Ramsar site;
- The New Forest SAC and Ramsar site; New Forest SPA;
- Solent Maritime SAC;
- Solent and Southampton Water SPA and Ramsar site.

5.61 Natural England's Site Improvement Plans[29] list air pollution in the form of atmospheric nitrogen deposition as a current pressure or future threat to all of these European sites.

5.62 A review of the Air Pollution Information System (APIS) website indicates that rates of Nitrogen deposition exceed critical loads[30] for some sensitive features of Dorset Heaths SAC, The New Forest SPA, and Solent Maritime SAC.

5.63 Census 2011 information indicates that significant numbers of the District's residents commute out to neighbouring employment locations, particularly Southampton, Bournemouth/Poole, Eastleigh and other destinations in Hampshire and Dorset. Some of the major roads between proposed strategic development sites and these destinations are within 200 m of the European sites listed above, for example:

- the Totton Bypass section of the A35 that crosses part of Solent Maritime SAC in the River Test, carrying traffic towards Southampton and Eastleigh;
- the A31, A35 and A337 that cross The New Forest SAC and Ramsar site and New Forest SPA; and
- the A31 that links development around Ringwood to Bournemouth/Poole, passing adjacent to Dorset Heaths SAC and Dorset Heathlands SPA and Ramsar site.

5.64 This list of roads is not intended to be comprehensive but contributed to the judgement that the more detailed assessment of traffic growth, air pollution, and the effects of air pollution described below was required.

5.65 In addition to commuter traffic, New Forest National Park receives an estimated 13.5 million visitor days each year, with the vast majority of both staying and day visitors using the car to reach their destination[31]. The Regulation 19 Submission Draft of New Forest National Park Local Plan Part 1 also notes that road traffic volumes across the National Park are high, especially during the summer months, and that trends indicate a general increase each year on a number of routes.

5.66 It is noted that the Local Plan Part 1 seeks to direct most new development to relatively sustainable locations adjacent to existing, larger settlements in New Forest District. In addition *Policy 7: Strategic Transport Priorities* commits the Council to supporting strategic transport proposals (e.g. by Highways England or Hampshire County Council) that improve public transport

[29] http://publications.naturalengland.org.uk/category/5458594975711232
[30] Comparing maximum deposition rates to the lower end of the stated critical load ranges on a precautionary basis
[31] Tourism South East visitor survey 2004-2005

services or reduce traffic congestion. Nevertheless, the total amount of housing development proposed, together with lesser amounts of employment development is likely to add to road traffic within and around the District, including on major roads within 200 m of sensitive European sites.

5.67 In light of the information above it was concluded that a potential exists for traffic growth and associated increases in air pollution from the New Forest Local Plan Part 1 to result in significant traffic growth and associated air pollution effects on European sites, particularly in combination with commuter flows and planned growth in neighbouring districts. It was therefore recommended that a more detailed and comprehensive examination of potential in combination air quality effects on the Dorset Heaths, New Forest and Solent European sites listed at paragraph 5.60 above be carried out. In response, NFNPA and NFDC jointly commissioned third party consultants to carry out a traffic modelling and air quality assessment study[32] and linked Ecological Assessment of Air Quality Risks [33] which are reported on separately and together constitute the HRA of air quality effects for both the New Forest National Park and New Forest District Local Plans. The results and conclusions of the HRA in relation to changes in air quality are set out in those separate reports but for ease of reference their conclusions are summarised below.

5.68 The air quality assessment concluded that it is not possible to discount the potential for significant effects in relation to annual mean NO_X concentrations, 24-hour NO_X concentrations, nutrient nitrogen deposition, and increased ammonia concentrations without further analysis of the sensitivity of designated habitats to these impacts at identified locations. These conclusions were drawn for both the 'Do-Something' scenario of traffic growth from the NFDC and NFNPA Local Plans alone and for an 'In combination' scenario that also considered other changes expected to occur up to 2036. These conclusions triggered the further work contained in the Ecological Assessment of Air Quality Risks report.

5.69 The Ecological Assessment of Air Quality Risks concluded as follows for the various European sites considered.

The New Forest SAC, SPA and Ramsar site

5.70 Implementation of the NFDC Local Plan Part 1 and NFNPA Local Plan alone is not likely to have an adverse effect on the integrity of New Forest SAC, SPA and Ramsar site. In combination effects will result in exceedances for ammonia and acid deposition, although exceedance of critical loads / levels is also predicted in the absence of the Local Plans. Advice published by APIS[34] indicates that site-specific information on the effects of ammonia and acid deposition on vegetation is limited. In light of this uncertainty, the ecological assessment recommends that NFDC and NFNPA undertake periodic vegetation monitoring to determine the current condition of sensitive vegetation and to identify any changes that occur during the life of the two Local Plans (measured at appropriate intervals). Screening and habitat enhancement/management measures that can be used to mitigate the impact of airborne pollutants are also summarised in the ecological assessment. Further to these recommendations, Natural England is coordinating additional monitoring to address the uncertainty, as described in more detail in the 'Existing mitigation' section below.

Dorset Heaths SAC and Dorset Heathlands SPA and Ramsar site

5.71 Implementation of the NFDC Local Plan Part 1 and NFNPA Local Plan is not likely to have a significant effect on the Dorset Heaths SAC or the Dorset Heathlands SPA and Ramsar site. This conclusion applies both to the effects of the NFDC and NFNPA plans alone and to their effects in combination with other plans and projects. Although the resultant increase in traffic will result in localised exceedances of the screening criteria and critical levels or loads, this is likely to be mitigated in part by existing vegetation alongside roads. Where impacts do occur it is expected that they will be limited in their extent and area.

[32] Air Quality Consultants (2018) Air Quality Input for Habitats Regulations Assessment: New Forest – Final Report 29 March 2018
[33] BSG Ecology (2018) Ecological Consultancy Advice on Air Quality Risks – Final Report 19 May 2018
[34] http://www.apis.ac.uk/

Solent Maritime SAC

5.72 Implementation of the NFDC Local Plan Part 1 and NFNPA Local Plan is not likely to have an adverse effect on the integrity of Solent Maritime SAC. The modelling scenarios employed mean that this conclusion is also reached when considering the effects of the Local Plan in combination with other plans and projects.

Solent and Southampton Water SPA and Ramsar site

5.73 Implementation of the NFDC Local Plan Part 1 and NFNPA Local Plan is not likely to have a significant effect on the Solent and Southampton Water SPA and Ramsar site. The modelling scenarios employed mean that this conclusion is also reached when considering the effects of the Local Plan Part 1 in combination with other plans and projects.

Existing mitigation

5.74 In line with the findings of the Ecological Assessment of Air Quality Risks (above) mitigation is only required in relation to The New Forest SAC, and New Forest SPA and Ramsar site.

5.75 *Policy 10: Mitigating the impacts of development on International Nature Conservation sites* states that for all residential developments, a financial contribution will be required towards monitoring and, if necessary (based on future monitoring outcomes) managing or mitigating air quality effects within The New Forest SAC, and New Forest SPA, and Ramsar site. Supporting text to the policy recognises the potential for adverse effects on the integrity of The New Forest SAC, and New Forest SPA and Ramsar site from air pollution associated with cumulative traffic growth. It goes on to say that there are uncertainties in the data but that the precautionary principle requires a financial contribution to ongoing monitoring of the effects of traffic emissions on sensitive locations, to trigger management or mitigation measures and developer contributions to implement them if harmful effects are confirmed in the future. It further states that legal agreements or other appropriate mechanisms will be put in place to ensure that development makes appropriate contributions for air quality management or mitigation.

5.76 Natural England is working with NFDC and NFNPA to coordinate monitoring to address uncertainty about the potential for modelled air pollution from road traffic growth to have adverse effects on the integrity of The New Forest SAC, and New Forest SPA and Ramsar site. A commitment to continuing to participate in this partnership work is provided in the Statement of Common Ground between NFDC and NFNPA[35]. Should the further work reveal a potential for adverse effects on site integrity, potential mitigation measures are available, as described in the Ecological Assessment of Air Quality Risks report. A draft Air Quality Ecological Mitigation Plan[36] documents the first component of this ongoing partnership work. It states that fieldwork and desktop review have not yielded any evidence to indicate that New Forest habitats are currently experiencing negative effects from traffic related air pollution. However, it goes on to acknowledge the need for a monitoring and mitigation strategy on the basis that the earlier air quality assessment study[37] indicates that there will be increases in traffic related Nitrogen pollution on roads across the New Forest, that some of the Nitrogen pollution will be in exceedance of the relevant critical loads, and that the New Forest Local Plans will contribute more than 1% of the critical load. The draft monitoring and mitigation plan describes how air pollution modelling and habitat data have been used to identify areas that may be at higher risk from this and other predicted changes to future levels of aerial pollutants, and a monitoring strategy has been developed. The monitoring strategy is designed to provide the earliest possible indication that Nitrogen pollution is affecting vegetation, so that measures can be taken to mitigate the impact. A literature review has also been undertaken to identify potentially suitable mitigation measures, so that these can be considered at the point at which the requirement for them becomes apparent. Estimated costs for all recommended monitoring and mitigation have been provided.

[35] Statement of Common Ground between the New Forest National Park Authority and New Forest District Council, May 2018
[36] New Forest Air Quality Ecological Mitigation Plan: Draft Report, Ecological Planning & Research Ltd, 4 June 2018
[37] Air Quality Consultants (2018) Air Quality Input for Habitats Regulations Assessment: New Forest – Final Report 29 March 2018

Conclusions

5.77 Implementation of the NFDC Local Plan Part 1 and NFNPA Local Plan alone will not have an adverse effect on the integrity of any European site. While there is no evidence of current negative effects from traffic related air pollution, uncertainty remains about whether in combination traffic growth and related air pollution could adversely affect the integrity of New Forest SAC, SPA and Ramsar site during the plan period. Partnership work is underway to address this current uncertainty - a mitigation and monitoring plan[38] sets out an appropriate monitoring regime and demonstrates that effective solutions are available, should monitoring confirm the need for these. Strong commitments to continue with this work and to take effective mitigating action, should future monitoring indicate the need for this, are provided by the Local Plan Part 1 and by the Statement of Common Ground between NFDC and NFNPA. On this basis, **adverse air quality effects on the integrity of any European site from the Local Plan Part 1 can be ruled out both alone and in combination**.

Traffic collision risk

5.78 Rights exercised by commoners of the New Forest include the right to graze ponies, cattle, donkeys, sheep, and pigs on the Forest. Many of these animals are semi-wild and their browsing and grazing suppresses the growth of brambles, gorse and other coarse vegetation, helping to maintain the designated open habitats of New Forest SAC and Ramsar site.

5.79 Correspondence with Natural England[39] during earlier stages of HRA identified a type of potential adverse effect not previously included in the joint HRA Scoping document for NFDC and NFNPA. The responsible officer for the New Forest expressed concerns that development could result in an increase in traffic using Roger Penny Way (B3078 across the northern part of the New Forest) and roads near Hordle, making them unsafe for grazing animals and necessitating fencing along the roadsides. If fencing is needed to protect animals, changes to the grazing pattern in the New Forest could, without mitigation, lead to loss of open habitats for which New Forest SAC and Ramsar site is designated, with knock-on effects on New Forest SPA designated bird species and New Forest Ramsar site fauna reliant on those habitats. There is potential for similar problems to arise close to all road commuting routes across the New Forest where conservation grazing is important for habitat management.

HRA assumptions

5.80 No specific assumptions made.

Potential for effects from Local Plan Part 1 prior to mitigation

5.81 Census 2011 information indicates that significant numbers of the District's residents commute out to neighbouring employment locations, particularly Southampton, Bournemouth/Poole, Eastleigh and other destinations in Hampshire and Dorset.

5.82 In addition to commuter traffic, New Forest National Park receives an estimated 13.5 million visitor days each year, with the vast majority of both staying and day visitors using the car to reach their destination[40]. The Regulation 19 Submission Draft of New Forest National Park Local Plan Part 1 also notes that road traffic volumes across the National Park are high, especially during the summer months, and that trends indicate a general increase each year on a number of routes.

5.83 It is noted that the Local Plan Part 1 seeks to direct most new development to relatively sustainable locations adjacent to existing, larger settlements in New Forest District. In addition *Policy 7: Strategic Transport Priorities* commits the Council to supporting strategic transport proposals (e.g. by Highways England or Hampshire County Council) that improve public transport services or reduce traffic congestion. Nevertheless, the total amount of housing development

[38] New Forest Air Quality Ecological Mitigation Plan: Draft Report, Ecological Planning & Research Ltd, 4 June 2018
[39] Dated 22 August 2016, following up on various point discussed at a 9 August 2016 stakeholder consultation meeting
[40] Tourism South East visitor survey 2004-2005

proposed, together with lesser amounts of employment development is likely to add to road traffic within and around the District, including on roads passing through the New Forest SAC, SPA and Ramsar site.

5.84 Hordle is some distance from the European designations of the New Forest and there is therefore limited potential for significant effects. In relation to Roger Penny Way, however, it reasonable to assume that traffic would increase on this road as a result of strategic allocations SS 16, SS 17, and SS 18 around Fordingbridge, as it provides a direct route to the M27 from which commuters can access employment areas in Southampton or travel onwards to centres in the M3 corridor. Roger Penny Way runs through all of the European designations of the New Forest. There is potential for similar problems to arise close to all road commuting routes across the New Forest where conservation grazing is important for habitat management. Further examination of the potential for adverse effects on the integrity of the New Forest SAC, SPA and Ramsar site is therefore required.

Is traffic growth likely to result in increased collisions with grazing animals?

5.85 Evidence indicates that traffic growth is not associated with an increase in collisions with grazing animals.

5.86 The Verderers of the New Forest work in conjunction with the Forestry Commission (which manages the Forest on behalf of the Crown), Natural England, and with owners of other areas of common land within the Forest, such as the National Trust to protect and administer the New Forest's commoning practices and its related traditional landscape and wildlife. Their offices, powers and responsibilities are derived from an Act of Parliament in 1877 and subsequent Acts. As part of their work, the Verderers monitor and report[41] on the numbers of commoners' livestock present in the New Forest and the number of these killed in road traffic accidents. Drawing on these data, Figure 5.1 shows the proportion of commoners' livestock killed in road traffic accidents in each year since 1956.

Figure 5.1 Proportion of New Forest commoners' stock killed in road traffic accidents

5.87 As previously described, road traffic across the New Forest has grown significantly over the past years but it is clear from Figure 5.1 that the proportion of New Forest commoners' stock being killed in road traffic accidents has nevertheless shown a steady decline. This decline is thought to be a result of various management measures, as discussed below.

[41] 'Road Traffic Accidents' report available from http://www.verderers.org.uk

Consideration of whether an increase in traffic collisions with grazing animals would be likely to be managed by fencing

5.88 Evidence also indicates that should the long term trend of declining traffic collisions be reversed, a wide range of management measures other than fencing is available to address this and additional fencing is therefore unlikely to be needed.

5.89 It is likely that a significant contributor to the general decline in the traffic collision ratio seen between the mid-1950s and mid-1970s resulted from fencing of the major roads across the New Forest during this period, namely the A31, A35 and A337. However, since fencing of the major roads was completed the traffic collision ratio has continued to fall steadily. This is thought to be attributable to the active management of this issue by the NFNPA, Forestry Commission, Verderers, and other stakeholders, including:

- reducing speed limits on roads crossing the New Forest (for example A337 speed limits were reduced to 40 mph in the early 1990s) and operations to enforce speed limits across the National Park;
- a Higher Level Stewardship scheme that funds the Verderers Grazing Scheme which contributes to the costs of reflective pony and cattle collars to increase the visibility of stock to drivers;
- the Verderers work with County Highway staff in the use of warning signs, educational materials about the risk of collision with stock are distributed by stakeholders, and weekly animal accident statistics are distributed to the local press and published on the Verderers website, all of which help to influence driver behaviour;
- a £1,000 reward for information leading to the successful prosecution and conviction of hit and run drivers;
- stakeholders publicise a hotline to report traffic accidents involving New Forest stock;
- a multi-agency Animal Accident Reduction Group which meets twice a year to review recent accident records and consider what more can be done to reduce accidents.

5.90 NFNPA monitors animal accident statistics collected by the Verderers and reports these through its State of the Park Reports. This will allow it to identify any reversal in the trend of long term reduction in traffic collision risk associated with development proposed by the Local Plan Part 1 in combination with other plans and projects and take corrective action.

Existing mitigation

5.91 Measures currently being employed to manage traffic collisions with grazing animals are described in the preceding section.

Conclusion

5.92 The review of information above has shown that road traffic growth does not inevitably lead to an increase in the risk of grazing animals on the New Forest being killed in collisions with road traffic. In fact, a suite of measures has been identified and is being actively employed by NFNPA and other stakeholder organisations to successfully manage the risk of road traffic collisions with grazing stock in the New Forest, resulting in a declining trend in the risk of animal accidents. In addition, NFNPA monitors animal accident statistics which will allow it to respond to any reversal of this long term trend by altering the mix and/or degree of such mitigation measures such as driver education and control of traffic speeds on affected roads. Since the roads presenting the highest collision risk have already been fenced and there is a broad range of other measures available with the potential to successfully manage risk, it should be possible to address such a reversal without additional fencing. In addition, any new fencing next to a highway, if over 1 metre in height, would require planning permission, providing an opportunity for project level HRA to assess potential effects on the New Forest European sites.

5.93 In light of the findings presented above it is concluded that traffic growth associated with development proposed by the **Local Plan Part 1 will not result in adverse effects on the integrity of any European site as a result of loss of traffic collision risk, either alone or in combination**.

Recreation pressure

5.94 This HRA topic considers the potential effects of the Local Plan Part 1 in terms of:

- Designated species mortality or disturbance: direct mortality of ground nesting birds' eggs or young by visitor trampling or dogs off leads; disturbance of ground nesting birds by recreational visitors and their dogs; mortality due to increased incidence of fires; mortality due to tipping/littering.
- Designated habitats loss or damage: path erosion or soil compaction by walkers, cyclists, horse riders etc.; eutrophication of soils by dog faeces; increased incidence of fires; tipping/littering.

HRA assumptions

5.95 European sites scoped into the HRA which are judged to be vulnerable to recreation pressure, based on their designated features and the pressures and threats facing them (see Appendix 1) are:

- Avon Valley SPA;
- Avon Valley Ramsar site;
- Dorset Heaths SAC;
- Dorset Heathlands SPA;
- Dorset Heathlands Ramsar site;
- The New Forest SAC;
- New Forest SPA;
- The New Forest Ramsar site;
- Solent Maritime SAC;
- Solent and Southampton Water SPA;
- Solent and Southampton Water Ramsar site.

5.96 The HRA therefore considered the potential for increased recreation pressure on these sites as follows.

Avon Valley SPA and Ramsar site

5.97 Dog walkers disturbing the designated population of Bewick's Swan in areas outside public rights of way are identified by the Site Improvement Plan as a concern. It is understood that Natural England has not previously been concerned about recreational pressure on this site arising from development in the New Forest, due in part to very limited public access. The Gadwall population for which the SPA is also designated is focussed on Blashford Lakes Gravel Pits which is managed as a nature reserve so access is controlled. It also seems likely that the extensive outdoor recreation opportunities within the New Forest National Park and Solent Coast European sites exert a stronger pull on many residents of New Forest District and New Forest National Park than the Avon Valley.

5.98 The HRA therefore assumed that recreational users of the Avon Valley are overwhelmingly local and that a potential for a contribution to in combination recreational pressure on the Bewick's Swan population only exists for any residential development or visitor accommodation within 1.0 km of Avon Valley SPA and Ramsar site. This approach was agreed with Natural England via the HRA Scoping Report, HRA Discussion Document, and associated consultation described earlier.

Dorset Heaths SAC and Dorset Heathlands SPA and Ramsar site

5.99 Based on research into the behaviour of visitors to the Dorset Heaths[42,43] and Natural England's views documented in The Dorset Heathlands Planning Framework 2015-2020[44], the HRA assumed that prior to consideration of mitigation, all residential development or visitor accommodation within 5 km of the Dorset Heaths designated sites has the potential to have an adverse effect on integrity in combination.

The New Forest SAC, New Forest SPA, and New Forest Ramsar site

5.100 Prior HRA work for the NFDC Local Plan Part 2[45] provides a detailed review of evidence on recreation pressure on New Forest SAC and SPA; key elements of this are reproduced in Appendix 2. The HRA of the NFDC Local Plan Part 2 concludes that whilst the best available evidence is inconclusive, the risk of residential development in New Forest District leading to increased visitor pressure on the New Forest European sites cannot be ruled out for development anywhere within New Forest District. Given that the National Park is surrounded by New Forest District, it is consistent to assume that such effects cannot be ruled out for development anywhere within New Forest National Park. This evidence remains valid and the HRA of the Local Plan Part 1 therefore assumed that prior to mitigation, a potential exists for adverse in combination effects on the integrity of the New Forest European sites from any residential development or visitor accommodation within New Forest National Park.

Solent Maritime SAC, Solent and Southampton Water SPA and Ramsar site

5.101 The Solent Disturbance and Mitigation Project (SDMP) has established that 75% of visitors to the Solent European sites come from within 5.6 km (as the crow flies) of Solent and Southampton Water SPA and recommends that avoidance and mitigation measures be sought for residential development within this zone of impact[46]. The HRA therefore assumed that prior to mitigation, a potential exists for adverse in combination effects on the integrity of on Solent Maritime SAC and Solent and Southampton Water SPA and Ramsar site from residential development or visitor accommodation within this zone.

Potential for effects from Local Plan Part 1 prior to mitigation

Avon Valley SPA and Ramsar site

5.102 In line with the methodology described above, it is assumed that prior to mitigation a potential for a contribution to in combination recreation pressure on Bewick's Swan exists for any residential or visitor accommodation development within 1 km of Avon Valley SPA and Ramsar site. The Local Plan Part 1 proposes the following residential development sites within 1 km of Avon Valley SPA or Avon Valley Ramsar site:

- SS 13 Land at Moortown Lane, Ringwood (480 homes);
- SS 15 Land at Snails Lane, Ringwood (100 homes).

Dorset Heaths SAC and Dorset Heathlands SPA and Ramsar site

5.103 In line with the methodology described above, it is assumed that prior to mitigation, a potential for in combination effects exists for any residential or visitor accommodation development within 5 km of the Dorset Heaths European sites. The Local Plan Part 1 allocates the following residential development sites within 5 km of the Dorset Heathlands European sites:

- SS 12 Land to the south of Derritt Lane, Bransgore (100 homes);
- SS 13 Land at Moortown Lane, Ringwood (480 homes);

[42] R. T. Clarke, J. Sharp and L. D, "Access Patterns in South-east Dorset. The Dorset Household Survey: Consequences for Future Housing and Greenspace Provision," Footprint Ecology, Unpublished report, 2008.
[43] D. Liley, J. Sharp and C. R. T, "Access Patterns in South-east Dorset. Dorset Household Survey and Predictions of Visitor Use of Potential Greenspace Sites," Footprint Ecology, Unpublished report, 2008.
[44] The Dorset Heathlands Planning Framework 2015-2020 Supplementary Planning Document: An implementation plan to mitigate the impact of new housing development upon the Dorset Heaths Special Protection Area, 2016.
[45] See Appendix 1 of Local Plan (Part 2) Sites and Development Management Habitats Regulations Assessment of Submission Document and Main Modifications, NFDC, 2013.
[46] Solent Disturbance and Mitigation Project (SDMP) Briefing Note, Solent Forum / SDMP Project Group, 2013.

- SS14 Land to the north of Hightown Road, Ringwood (270 homes);
- SS 15 Land at Snails Lane, Ringwood (140 homes);
- SS 16 Land to the north of Station Road, Ashford (140 homes);
- SS 17 Land at Whitsbury Road, Fordingbridge (330 homes) – approximately 2/3 of site lies within 5 km buffer.

The New Forest SAC, New Forest SPA, and New Forest Ramsar site

5.104 In line with the methodology described above, it is assumed that prior to mitigation, a potential for adverse effects on integrity in combination with other plans or projects exists for any residential or visitor accommodation development within New Forest District. All such development proposed by the Local Plan Part 1 is therefore assumed to contribute to recreation pressure on the New Forest European sites. The Local Plan Part 1 sets a housing delivery target of 10,455 homes during 2016-2036 and allocates sites to provide 6,055 of these.

Solent Maritime SAC, Solent and Southampton Water SPA and Ramsar site

5.105 In line with the methodology described above, it is assumed that prior to mitigation, a potential for adverse effects on integrity in combination with other plans or projects exist for any residential development within 5.6 km of Solent Maritime SAC or Solent and Southampton Water SPA and Ramsar site. The Local Plan Part 1 proposes the following residential development sites within this zone of influence:

- SS 1 Land to the north of Totton (900 homes);
- SS 2 Land south of Bury Road, Marchwood (860 homes);
- SS 3 Land at Cork's Farm, Marchwood (150 homes);
- SS 4 The former Fawley Power Station (1,380 homes);
- SS 5 Land at Milford Road, Lymington (185 homes);
- SS 6 Land to the east of Lower Pennington Lane, Lymington (100 homes);
- SS 7 Land north of Manor Road, Milford on Sea (110 homes);
- SS 8 Land at Hordle Lane, Hordle (160 homes);
- SS 9 Land east of Everton Road, Hordle (100 homes).

Existing mitigation

5.106 Policy 10: *Mitigating the impacts of development on International Nature Conservation sites* states that:

"development will only be permitted where the Council is satisfied that any necessary mitigation, management or monitoring measures are included such that, in combination with other plans and development proposals, there will not be adverse effects on the integrity of any of the following International Nature Conservation sites:

- *the New Forest SAC, the New Forest SPA and the New Forest RAMSAR site;*
- *the Solent Maritime SAC, Solent and Isle of Wight Lagoons SAC, the Solent and Southampton Water SPA, and the Solent and Southampton Water RAMSAR site;*
- *the River Avon SAC and River Avon RAMSAR site; and*
- *The River Itchen SAC."*

5.107 The west of the NFDC plan area falls within the 5 km protection zone around Dorset Heaths within which contributions to mitigation of recreation pressure are required under The Dorset Heathlands Planning Framework 2015-2020. Historically, it has been accepted by Natural England that development within this area of New Forest District can instead contribute to mitigation of recreation pressure on the New Forest European sites.

5.108 The policy goes on to list mitigation strategies that contain pre-approved measures relevant to various site locations and which can adequately mitigate the effects of residential development.

Those currently in place or being prepared that contain measures designed to mitigate recreation pressure are identified as the Mitigation for Recreational Impacts SPD and the Solent Recreation Mitigation Strategy. The pre-approved measures designed to address recreation pressure currently include:

"i. For developments providing 49 or fewer net additional units of residential accommodation, a financial contributions towards the provision of mitigation measures as set out below and in the Mitigation for Recreational Impacts SPD:

(a) Projects for the provision of alternative natural recreational green spaces and recreational routes: new or improved open space and recreational routes of a quality and type suitable to attract residents of new development within the Plan Area who might otherwise visit the International Nature Conservation sites for recreation; and

(b) Access and Visitor Management: measures to manage the number of recreational visits to the New Forest and Solent Coast International Nature Conservation sites; and to modify visitor behaviour within those sites so as to reduce the potential for harmful recreational impacts; and

(c) Monitoring of the impacts of new development on the International Nature Conservation sites and establishing a better evidence base: to reduce uncertainty and inform future refinement of mitigation measures.

ii. For developments of 50 or more net additional residential dwellings:

(a) Direct provision by the developer of at least 8 hectares of natural recreational greenspace per 1,000 population located on the development site or directly adjoining and well connected to it; and

(b) A financial contributions towards Access and Visitor Management and Monitoring as set out above at i(b) and i(c).

iii. Additionally for all residential developments within 5.6km of the Solent and Southampton Water SPA, as shown on Figure 5.1, a financial contribution is required towards a Solent-wide programme of visitor management, monitoring and development mitigation projects."

5.109 The housing allocation policies within the Local Plan Part 1 set out site-specific requirements for suitable alternative natural greenspace (SANG) and enhanced connectivity to natural greenspaces that should help to mitigate recreation pressure on sensitive European sites, as summarised in Table 5.2.

Table 5.2: Site-specific policy direction in Local Plan Part 1 that could mitigate recreation pressure

Strategic housing allocation	Relevant mitigation, master planning objectives and issues to be addressed per Local Plan Part 1 site allocation policy and supporting text
Totton and the Waterside	
SS 1 Land to the north of Totton	Concept master plan shows areas of *"land compliant with recreational mitigation guidance (SANGS)"* Master planning objectives include: *"Create an integrated network of natural green spaces… to connect new greenspace to existing footpaths and rights of way to Loperwood, Sharves Hill plantation, Wade Hill Drove and Testwood Lakes."* Site specific considerations to be addressed include: *"Effective coordination between multiple land interests to deliver an integrated, whole-site approach to the provision of ...natural recreational greenspace for habitat mitigation."* Supporting text notes that, as set out in the Infrastructure Delivery Plan, infrastructure requirements for the site include *"Provision and in-perpetuity maintenance of…natural recreational greenspace for habitat mitigation"*
SS 2 Land south of Bury Road, Marchwood	Concept master plan shows areas of *"land compliant with recreational mitigation guidance (SANGS)"* Master planning objectives include: *"Creating green corridors…incorporating natural recreational greenspace"* Supporting text notes that, as set out in the Infrastructure Delivery Plan, infrastructure requirements for the site include *"Provision and in-perpetuity*

Strategic housing allocation	Relevant mitigation, master planning objectives and issues to be addressed per Local Plan Part 1 site allocation policy and supporting text
	maintenance of…natural recreational greenspace for habitat mitigation"
SS 3 Land at Cork's Farm, Marchwood	Concept master plan shows areas of *"land compliant with recreational mitigation guidance (SANGS)"* Supporting text notes that, as set out in the Infrastructure Delivery Plan, infrastructure requirements for the site include *"Provision and in-perpetuity maintenance of…natural recreational greenspace for habitat mitigation"*
SS 4 The former Fawley Power Station	Master planning objectives include: *"Integrating planting and design features…to manage and minimise the impacts of development on the Solent foreshore and other areas of habitat value."* Supporting text notes that *"the site of the former power station will be developed as part of a comprehensive and integrated approach with adjoining land in tandem with Policy SP25 of the New Forest National Park Local Plan. Policy SP25 Proposals on land adjoining within the New Forest National Park…include measures that support a comprehensive redevelopment approach including the provision of extensive areas of natural recreational greenspace for habitat mitigation, restoration or enhancement…"*
South Coastal Towns	
SS 5 Land at Milford Road, Lymington	Concept master plan shows areas of *"land compliant with recreational mitigation guidance (SANGS)"* Supporting text notes that, as set out in the Infrastructure Delivery Plan, infrastructure requirements for the site include *"Provision and in-perpetuity maintenance of…natural recreational greenspace for habitat mitigation"*
SS 6 Land to the east of Lower Pennington Lane, Lymington	Concept master plan shows areas of *"land compliant with recreational mitigation guidance (SANGS)"* Master planning objectives include: *"…connecting to…footpath networks to the countryside."* Supporting text notes that, as set out in the Infrastructure Delivery Plan, infrastructure requirements for the site include *"Provision and in-perpetuity maintenance of…natural recreational greenspace for habitat mitigation"*
SS 7 Land north of Manor Road, Milford on Sea	Concept master plan shows areas of *"land compliant with recreational mitigation guidance (SANGS)"* Master planning objectives include: *"Retains boundary tree, hedge and embankment lines and integrates them into a walkable network of recreational greenspace connected to existing footpaths and to the countryside"; and* *"… new development facing onto a main area of accessible natural recreational greenspace to be provided on Green Belt land within the site boundary"* Supporting text notes that, as set out in the Infrastructure Delivery Plan, infrastructure requirements for the site include *"Provision and in-perpetuity maintenance of…natural recreational greenspace for habitat mitigation"*
SS 8 Land at Hordle Lane, Hordle	Concept master plan shows areas of *"land compliant with recreational mitigation guidance (SANGS)"* Master planning objectives include: *"Enhancing land along the stream and tree belt that forms the western boundary of the site…as natural recreational greenspace area…"* Supporting text notes that, as set out in the Infrastructure Delivery Plan, infrastructure requirements for the site include *"Provision and in-perpetuity maintenance of…natural recreational greenspace for habitat mitigation"*
SS 9 Land east of Everton Road, Hordle	Concept master plan shows areas of *"land compliant with recreational mitigation guidance (SANGS)"* Master planning objectives include: *"An area of enhanced natural recreational greenspace…"* Supporting text notes that, as set out in the Infrastructure Delivery Plan, infrastructure requirements for the site include *"Provision and in-perpetuity maintenance of…natural recreational greenspace for habitat mitigation"*
SS 10 Land to the east of Brockhills	Concept master plan shows areas of *"land compliant with recreational mitigation*

Strategic housing allocation	Relevant mitigation, master planning objectives and issues to be addressed per Local Plan Part 1 site allocation policy and supporting text
Lane, New Milton	*guidance (SANGS)"* Master planning objectives include: *"Providing a central north-south greenspace corridor…with the main area of natural recreational greenspace on the southern and eastern boundaries…"* Supporting text notes that, as set out in the Infrastructure Delivery Plan, infrastructure requirements for the site include *"Provision and in-perpetuity maintenance of…natural recreational greenspace for habitat mitigation"*
SS 11 Land to the south of Gore Road, New Milton	Concept master plan shows areas of *"land compliant with recreational mitigation guidance (SANGS)"* Master planning objectives include: *"Concentrating recreational natural greenspace provision on the southern and eastern edges of the development…"* Supporting text notes that, as set out in the Infrastructure Delivery Plan, infrastructure requirements for the site include *"Provision and in-perpetuity maintenance of…natural recreational greenspace for habitat mitigation"*
Avon Valley and Downlands sub area	
SS 12 Land to the south of Derritt Lane, Bransgore	Concept master plan shows areas of *"land compliant with recreational mitigation guidance (SANGS)"* Master planning objectives include: *"Creating…a natural recreational greenspace corridor along the southern and western site boundaries…"* Supporting text notes that, as set out in the Infrastructure Delivery Plan, infrastructure requirements for the site include *"Provision and in-perpetuity maintenance of…natural recreational greenspace for habitat mitigation"*
SS 13 Land at Moortown Lane, Ringwood	Concept master plan shows areas of *"land compliant with recreational mitigation guidance (SANGS)"* Master planning objectives include: *"Providing natural greenspace corridors that connect the new residential areas…to the countryside, linking the greenspace provision to the north of Crow Arch Lane with the recreational greenspace and playing fields area south of Moortown Lane."* Supporting text notes that, as set out in the Infrastructure Delivery Plan, infrastructure requirements for the site include *"Provision and in-perpetuity maintenance of…natural recreational greenspace for habitat mitigation"*
SS 14 Land to the north of Hightown Road, Ringwood	Concept master plan shows areas of *"land compliant with recreational mitigation guidance (SANGS)"* Master planning objectives include: *"incorporating a significant area of recreational greenspace"* Supporting text notes that, as set out in the Infrastructure Delivery Plan, infrastructure requirements for the site include *"Provision and in-perpetuity maintenance of…natural recreational greenspace for habitat mitigation"*
SS 15 Land at Snails Lane, Ringwood	Concept master plan shows areas of *"land compliant with recreational mitigation guidance (SANGS)"* Master planning objectives include: *"Create a broad area of green recreational space along the southern margin of the site with footpaths connecting at strategic points to the existing public rights of way."* Supporting text notes that, as set out in the Infrastructure Delivery Plan, infrastructure requirements for the site include *"Provision and in-perpetuity maintenance of…natural recreational greenspace for habitat mitigation"*
SS 16 Land to the north of Station Road, Ashford	Concept master plan shows areas of *"land compliant with recreational mitigation guidance (SANGS)"* Master planning objectives include: *"to create a well-designed new neighbourhood that…provides a valley corridor of natural recreational greenspace and habitat…to form part of a linked network of green infrastructure around Fordingbridge…"* Supporting text notes that, as set out in the Infrastructure Delivery Plan, infrastructure requirements for the site include *"Provision and in-perpetuity maintenance of…natural recreational greenspace for habitat mitigation"*
SS 17 Land at	Concept master plan shows areas of *"land compliant with recreational mitigation*

Strategic housing allocation	Relevant mitigation, master planning objectives and issues to be addressed per Local Plan Part 1 site allocation policy and supporting text
Whitsbury Road, Fordingbridge	*guidance (SANGS)"* Master planning objectives include: *"Protecting and enhancing the landscape and ecological value of the woodlands, wetlands and watercourse features that make up a central belt of green infrastructure through the site…"* Supporting text notes that, as set out in the Infrastructure Delivery Plan, infrastructure requirements for the site include *"Provision and in-perpetuity maintenance of…natural recreational greenspace for habitat mitigation"*
SS 18 Land at Burgate, Fordingbridge	Concept master plan shows areas of *"land compliant with recreational mitigation guidance (SANGS)"* Master planning objectives include: *"Redefining the rural edge by providing naturally managed areas of recreational mitigation space"*

Conclusions and recommendations

5.110 Prior to consideration of mitigation, the potential exists for recreation pressure to result in adverse effects on the integrity of: Avon Valley SPA and Ramsar site; Dorset Heaths SAC and the Dorset Heathlands SPA and Ramsar site; The New Forest SAC, New Forest SPA, and the New Forest Ramsar site; Solent Maritime SAC, Solent and Southampton Water SPA and Ramsar site.

5.111 As described above, Policy 10 of the Local Plan Part 1 is designed to mitigate these effects. The key features of the approach to mitigation of recreation pressure remain contained in supporting strategies[47] and outlined in the policy remain broadly the same as those accepted for the currently adopted Local Plan and supporting SPD 'Mitigation Strategy for European Sites: Recreational Pressure from Residential Development', namely:

- provision of new areas of *suitable alternative natural greenspace* (SANG) and recreational routes, designed so as to attract residents of new development who might otherwise visit the European sites for recreation;
- *access and visitor management measures* to modify potentially harmful behaviour of visitors to the European sites;
- *monitoring* to gain a better understanding of the impact of development on the European sites and refine future mitigation.

5.112 LUC agrees with the view stated in the Mitigation for Recreational Impacts SPD that it is not realistic in New Forest District for SANG to attempt to replicate the visitor experience offered by the New Forest and coast because of their scale and unique characteristics. Even if desirable and proven to be an effective means of mitigation, the practicalities of identifying and purchasing appropriate land within the Plan area, and creating and maintaining such a large publicly accessible site in the long-term, makes such an approach unrealistic in terms of having a prospect of delivery. Instead convenience and accessibility should encourage use of the alternative recreation areas provided for by Policy 10 and access and visitor management measures will mitigate the residual adverse recreational effects of those who continue to use the European sites for recreation. Uncertainty is addressed by monitoring which will allow early identification of the effectiveness of the mitigation strategy and, if necessary, allow corrective action to be taken. LUC therefore supports continued use of the more diverse package of measures referenced by Policy 10 and set out in detail in the Mitigation for Recreational Impacts SPD and the Solent Recreation Mitigation Strategy and believes that these are capable of continuing to provide effective mitigation of the potential recreational pressure effects of the Local Plan Part 1.

5.113 The Local Plan Part 1 standard for provision of 8 hectares of SANG per 1,000 population has been accepted by Natural England elsewhere (for the Thames Basin Heaths SPA) and also for the currently adopted New Forest District Local Plan Part 2: Sites and Development Management and is judged to remain appropriate. Based on the 8 hectares per 1,000 population standard and an average household size of approximately 2.3 persons per dwelling[48], sites of 50 dwellings will be

[47] New Forest (outside of the National Park) Recreational Mitigation Strategy (Review 1) and the Solent Recreation Mitigation Strategy

[48] ONS Census data 2011 indicate a population in New Forest District of 176,462 and ONS 2011-based household projections (Table 406) indicate 76,951 households

required to provide a new SANG that is just under 1 hectare in area. The Local Plan Part 1 policy approach should therefore avoid providing new SANG smaller than this in most cases, helping to ensure that the new recreational space can be designed to function as recreation mitigation land, while helping to ensure that new SANG can be provided in locations that are easily accessible for the residents it is intended to serve. These factors will help to ensure that the newly provided SANG is effective at helping to avoid additional visits to European sites.

5.114 The effectiveness of new SANG in helping to divert recreational visitors from European sites will be further enhanced by the guidance on *'design considerations for recreation mitigation'* provided by the New Forest outside of the National Park Recreational Mitigation Strategy for European Sites (Review 1) SPD. This guidance responds to evidence on the needs of people currently using the European sites for recreation (as summarised in Appendix 2), for example a significant proportion are dog walkers and the design considerations therefore include the provision of dog waste bins and dog exercise areas and the removal of stiles.

5.115 In addition, the Local Plan Part 1 provides comfort that recreation mitigation will be deliverable in practice via the concept master plans and master planning objectives included in the strategic site allocation policies (as summarised in Table 5.2).

5.116 NFDC's Recreational Mitigation Strategy notes the proximity of the District to all the European sites for which potential adverse effects on integrity due to recreation pressure have been identified by the HRA. However, it states (para. 2.7) that it is only directed towards mitigating recreation impacts on the New Forest and Solent Coast European sites. This raises the question of whether recreation pressure from the Local Plan Part 1 on Avon Valley SPA and Ramsar site and on Dorset Heathlands SAC and SPA are adequately mitigated.

5.117 While the Recreational Mitigation Strategy is not designed to provide specific mitigation for the Avon Valley and Dorset Heaths European sites in the form of access and visitor management or monitoring, the SANG provided by the strategy will serve to mitigate impacts on all European sites. This is judged to be sufficient to avoid adverse effects on the integrity of the Avon Valley and Dorset Heaths European sites. In this regard, it is notable that the Avon Valley European designations have limited accessibility and that both sets of European sites are likely to exert a smaller and more localised visitor draw than the European designations of the New Forest and Solent Coast.

5.118 In summary, it is concluded that reliance can be placed on the mitigation provided by Policy 10, the New Forest (outside of the National Park) Recreational Mitigation Strategy (Review 1), and the Solent Recreation Mitigation Strategy to adequately mitigate potential recreation pressure from development proposed by the Local Plan Part 1 and that **adverse effects on integrity due to recreation pressure can be ruled out for all European sites both alone and in combination.**

Changes in water quantity

5.119 This HRA topic considers the potential effects of the Local Plan Part 1 in terms of water abstraction to supply new development resulting in harmful changes to water levels or flows at European sites.

HRA assumptions

5.120 The potential for adverse effects on the integrity of European sites exists if development would affect the water levels and flows at European sites that are vulnerable to such changes. These sites may be located outside of the District and the 10 km buffer used in the HRA Scoping Report to establish the study area. In this regard, it was noted that Southern Water supplies the eastern half of the New Forest which falls within their 'Hampshire South' Water Resources Zone, much of the water supply for which comes from the River Itchen SAC and this European site was therefore added to the list of European sites scoped into the HRA, as noted in Chapter 3. Based on the New Forest Catchment Abstraction Management Strategy (CAMS)[49], other European site that could

[49] New Forest Abstraction Licensing Strategy, March 2013, Environment Agency

potentially be affected by abstractions within the New Forest include New Forest SAC, SPA and Ramsar sites; Solent Maritime SAC; and Solent and Southampton Water SPA and Ramsar site. It was assumed that the very large, marine extent of Solent and Dorset Coast pSPA means that it is not sensitive to changes in changes in water flows in the rivers draining to the Solent and Southampton Water.

Potential for effects from Local Plan Part 1 prior to mitigation

5.121 The eastern part of the New Forest lies within Southern Water's water supply area whilst the western part lies within Sembcorp Bournemouth Water's (SBW) water supply area.

Regulation of water abstraction by the Environment Agency

5.122 The Environment Agency is responsible for regulating the use of water resources in England and Wales. In 2013 it examined current and future water usage across both countries to provide an indicative assessment of the water stress situation for each water company's supply area[50]. The SBW supply area was assessed as being in low current stress and moderate (under most scenarios) future stress, with an overall designation of stress as 'not serious'. The Southern Water supply area was, however, assessed as being in both current and future water stress and designated as an 'area of serious water stress'. The South Hampshire area of Southern Water takes approximately two-thirds of its water from the River Test (drains to Solent and Southampton Water European sites) and the River Itchen (designated as a SAC and drains to Solent and Southampton Water European sites).

5.123 The Environment Agency uses the Catchment Abstraction Management Strategy (CAMS) process and abstraction licensing to regulate the use of water resources. Where abstractions cause or potentially cause actual flows to fall short of Environmental Flow Indicators (EFIs) and result in environmental damage, the Environment Agency may change or even revoke existing abstractions to achieve a sustainable abstraction regime. The CAMS covering the New Forest[51] reports that there is one water body in which recent actual flows have fallen below the EFI and two waterbodies where fully licensed flows might fall below the EFI. The CAMS covering the Test and Itchen[52] states that the Lower River Itchen and River Anton have recent actual flows which have fallen below the EFI at low flows and the lower River Test has fully licensed flows which might fall below the EFI. The abstraction licences within these water bodies that cause the environmental issues have been identified by the two CAMS and are being investigated as part of the Environment Agency's Restoring Sustainable Abstraction (RSA) programme to better understand the impacts caused by these licences, individually or cumulatively, and to develop mitigation options with licence holders.

5.124 Under the Habitats Regulations the Environment Agency also assesses the effects of existing abstraction licences and new applications to make sure they are not impacting on internationally important nature conservation sites – its 'review of consents' process. A review of consents in the New Forest was undertaken in 2005 and concluded that no licences were having an adverse effect on the riverine and wetland (groundwater dependent) New Forest SAC, SPA and Ramsar sites. The review of the impact of all abstraction licences in the Test and Itchen area on high priority European sites was completed in early 2005 and Site Action Plans published in October 2007 for Solent Maritime SAC, Solent and Southampton Water SPA, and River Itchen SAC, setting out the changes needed to abstraction licences.

Water resources management by the water companies

5.125 Water companies have a statutory duty to service planned development in their area and as noted above, the eastern part of New Forest District lies within Southern Water's supply area whilst the western part lies within SBW's supply area.

5.126 WRMPs are statutory plans that set out how a water supply company intends to secure its water supply over a 25 year plan period to ensure that a balance between supply availability and forecast water demand is maintained. These plans are subject to HRA which will ensure that

[50] Water stressed areas – final classification, 2013, Environment Agency
[51] New Forest Abstraction Licensing Strategy, March 2013, Environment Agency
[52] Test & Itchen Abstraction Licensing Strategy

proposals to increase the amount of water abstracted from existing sources or to develop new sources will not adversely affect the integrity of European sites.

5.127 HRA screening of the Southern Water WRMP 2015-2040 concluded that likely significant effects could not be ruled out due to potential effects of the Candover groundwater scheme for river augmentation on the River Itchen SAC, and of the Ford Wastewater Treatment Works (WwTW) effluent transfer scheme on the Arun Valley SAC, SPA and Ramsar site. In light of legally enforceable abstraction licence conditions, a monitoring programme, and other considerations, Appropriate Assessment of the Candover scheme was able to rule out adverse effects on the integrity of the River Itchen SAC. Appropriate Assessment of the Ford WwTW effluent transfer scheme allayed water quality concerns with the water treatment process as well as potential adverse effects on flows.[53]

5.128 SBW's WRMP 2014-2039 states that, as there is currently a surplus of supply versus demand within the SBW supply area, no proposals for the development of new water resource options are required. It further states that the potential effects of existing water abstraction operation on European sites have been assessed through the National Environment Programme (NEP) developed by the Environment Agency. The NEP assessment concluded that no sustainability reductions were necessary, i.e. reductions in permitted abstraction from surface or groundwater sources where abstraction has been found to be adversely affecting European sites, Sites of Special Scientific Interest (SSSIs), or sites identified under the Water Framework Directive (WFD). The WRMP states that it was screened for potentially significant environmental effects under the Strategic Environmental Assessment (SEA) Regulations and that it was agreed, in consultation with Natural England, the Environment Agency, and English Heritage, that the WRMP was not likely to have a significant effect on the environment. In light of the results of this SEA Screening and the fact that no new abstractions were proposed and no effects were identified from existing abstractions, adverse effects on the integrity of European sites from the SBW WRMP will not arise.[54]

5.129 It is noted that the WRMPs above were completed prior to the increase in housing provision now being contemplated by NFDC and that housing provision targets in other local authority areas within the supply network of Southern Water and Bournemouth Water may also have changed since those WRMPs were prepared. Comfort can, however, be taken from the following:

- Both WRMPs are based on Office for National Statistics (ONS) population projections rather than local authority housing provision targets, the SBW WRMP stating that these have performed well in predicting population growth at local area level.
- Both WRMPs were subject to sensitivity testing, including of population and household projections. For example, sensitivity testing of the SBW WRMP showed that water demand remained below water available for use in a dry year under all tested scenarios, including a 10% increase in the annual growth rate of households and population.
- A 2016 recent update to the SBW WRMP[55] did not identify the need to change any of its forecasts.

5.130 Natural England usually advises that local plan HRAs can rely on the HRA of the agreed WRMP, which will have assessed the potential for adverse effects on European sites. However, as discussed in the following section, more recent evidence creates uncertainty such that reliance cannot be placed on the Southern Water WRMP without further mitigation to address this.

Evidence from PUSH Integrated Water Management Study

5.131 The Partnership for Urban South Hampshire (PUSH) has commissioned an Integrated Water Management Strategy (IWMS)[56] to investigate whether the combined housing growth planned in the PUSH area can be accommodated whilst protecting the water environment. The eastern part

[53] Water Resources Management Plan 2015-40 Habitats Regulations Assessment (Summary), Cascade Consulting for Southern Water, 2014.
[54] Water Resources Management Plan 2014: Para 2.5 and Appendix 6 SEA Position Paper, 2014, Atkins for Sembcorp Bournemouth Water
[55] Water Resources Management Plan annual review and annual data return, Bournemouth Water, June 2016
[56] Integrated Water Management Study, Amec Foster Wheeler for PUSH, May 2018

of New Forest District, roughly corresponding to the Totton and the Waterside sub-area, falls within the study area.

5.132 In relation to potential effects of growth on water resources, the IWMS reviews Southern Water's Water Resource Management Plans (WRMP – discussed above), considers Water Resource Zone (WRZ) supply-demand information gathered from Southern Water, and draws on discussions with the Environment Agency. Southern Water's assessment is that two of its four main WRZs – Hampshire South and Isle of Wight - will be in deficit and a third will have a small deficit. To tackle the deficits, Southern Water has put forward a range of options for delivery in the next 25 years in order to increase their water supply.

5.133 However, the IWMS reports that concerns have been raised with regard to Southern Water's existing WRMP14 and their emerging draft WRMP19 options, in particular with regards to impacts on the River Itchen SAC and River Test SSSI. Changes to abstraction licences on the River Itchen have been imposed by the Environment Agency to remove the risk of adverse effect on integrity to the SAC and remove the risk of serious damage to the River Test SSSI. Southern Water has appealed the limits proposed for three abstraction licences and this is subject to a public inquiry. Until the outcome of this inquiry is known, the HRA for Southern Water's extant WRMP cannot be relied upon to ensure there will be no adverse effects on designated sites arising from future development within Southern Water's area. In addition the risk of adverse effects remains until the gap in public water supply (deficit) resultant from the licence changes is fulfilled by alternative options and/or the compensatory habitat requirements are met. With regard to the Habitats Regulations therefore, there is currently a degree of uncertainty with regard to Southern Water's plan to support the housing growth identified by PUSH.

5.134 Informal consultation with Natural England[57] confirms that uncertainties exist with regard to Southern Water's existing WRMP14 and its emerging Draft WRMP19 water resources options, in particular with regards to potential impacts on the River Itchen SAC. Natural England's advice is that these uncertainties will be resolved by Southern Water in due course but in the interim, Local Plans within the Southern Water supply area should require all development to be built to the higher standard under the Building Regulations of 110 litres per person per day. Natural England also recommends that policies are included that encourage the wise use of water in conjunction with the water companies, for example by developments incorporating grey water recycling systems and efficient appliances.

Existing mitigation

5.135 *Policy 13: Design quality and local distinctiveness* requires development to incorporate measures to reduce environmental impacts wherever they are appropriate and capable of being effective such as greywater recycling.

5.136 *Policy 35: Development standards* requires that all development within the District meets or exceeds the higher water use efficiency standard in accordance with Part 36(2)(b) of the Building Regulations, currently a maximum use of 110 litres per person per day. In line with Natural England's advice[58], supporting text to *Policy 35: Development standards* clarifies that the Council is adopting the most efficient water use standard partly due to the potential risk of water abstraction creating problems for River Itchen SAC. Supporting text also makes clear that further efficiencies are encouraged and notes that Southern Water seeks[59] to achieve a higher efficiency standard of 100 litres per person per day by 2040 to manage demand in Hampshire (affecting the Totton and the Waterside sub-area). It further notes that an equivalent water efficiency mechanism to the Building Regulations is provided by the national BREEAM standard[60].

5.137 Water companies are subject to the Environment Agency's licensing regime which regulates the amount of water that can be abstracted in order to protect the environment via the CAMS process and associated review of existing abstraction licences and granting of new ones. The ongoing operation of these controls, as described above, helps to ensure that water abstractions do not have a detrimental impact on European sites.

[57] Informal comments on Draft (Pre-Submission)local plan review dated 27 April 2018
[58] Informal comments on Draft (Pre-Submission)local plan review dated 27 April 2018
[59] Draft Water Resource Management Plan 2018
[60] BREEAM UK New Construction 2018

Conclusions and recommendations

5.138 In light of the information above, including the mitigation of uncertain effects on River Itchen SAC provided by the Local Plan Part 1's adoption of the higher water use efficiency standard in the Building Regulations, **adverse effects on the integrity of any European site in relation to changes in water quantity can be ruled out both alone and in combination**.

Changes in water quality

5.139 This HRA topic considers the potential likely significant effects of the Local Plan Part 1 in terms of development leading to:

- increased volumes of treated wastewater discharges, resulting in nutrient enrichment of water and potential lowering of dissolved oxygen as well as increased water velocities and levels downstream of outfalls of WwTW or off-sewage-network private septic tanks and small 'packaged' sewage treatment systems;
- overloading of combined sewer networks during storm events, resulting in overflows and contamination of water bodies;
- contaminated surface runoff from urban surfaces and roads.

HRA assumptions

5.140 Effects relating to changes in water quality only need to be considered in relation to the European sites that are potentially vulnerable to a reduction in water quality. Based on their designated features and the pressures and threats facing them (see Appendix 1), these were judged to be:

- River Avon SAC;
- Avon Valley SPA;
- Avon Valley Ramsar site;
- Dorset Heaths SAC;
- Dorset Heathlands SPA;
- Dorset Heathlands Ramsar site;
- The New Forest SAC;
- New Forest SPA;
- The New Forest Ramsar site;
- Solent and Dorset Coast pSPA;
- Solent and Isle of Wight Lagoons SAC;
- Solent Maritime SAC;
- Solent and Southampton Water SPA;
- Solent and Southampton Water Ramsar site.

Capacity in sewer and WwTW infrastructure to accommodate strategic allocations

5.141 A potential for adverse effects on integrity exists if the development proposed is likely to affect water quality at hydrologically connected European sites due to increased volumes of treated wastewater discharged from WwTWs serving the Plan area.

5.142 A potential for adverse effects on integrity exists if any sewer network capacity issues cannot feasibly be addressed.

Discharges from private septic tanks or small sewage treatment plants

5.143 Research commissioned by Natural England[61] has shown that phosphorus originating from septic tank discharges can move laterally through the soil profile for a distance of 20-30 m in a variety of soil types. It therefore concluded that the Building Regulations' legislative value of 10 m for the separation of a septic tank soakaway from a watercourse is probably insufficient to protect that waterbody from phosphorus pollution from this source, even where the local hydrology does not provide a shortcut for the delivery of septic tank discharges to water.

5.144 The HRA therefore assumed that the potential exists for adverse effects on integrity if development is not likely to be connected to a public sewer and is within 30 m of a European site or a watercourse draining to a European site.

Contaminated surface runoff

5.145 The HRA assumed that the potential exists for adverse effects on integrity if development proposed is likely to result in an increase in contaminated surface water runoff in proximity to vulnerable European sites. In the absence of guidance and for consistency with the treatment of septic tank soakaways (above), a zone of influence of 30 m from a European site or a watercourse draining to a European site was assumed.

Potential for effects from Local Plan Part 1 prior to mitigation

Capacity in sewer and WwTW infrastructure to accommodate strategic allocations

5.146 NFDC consulted the Environment Agency and water companies on the proposed strategic locations and a number of capacity or connectivity issues in relation to wastewater treatment or the sewer network were raised which could result in water pollution if not addressed. The individual issues of relevance to potential impacts of development on water quality and the policy requirements in the Local Plan Part 1 that may help to mitigate them are set out in Table 5.3 in the 'Existing mitigation' section below.

Water quality issues in Southampton Water and the Solent European sites

5.147 Natural England and the Environment Agency have produced a guidance note[62] on the challenges in the Solent area in managing nutrients and sewage discharges to the marine environment whilst meeting the need for growth. This states that:

- elevated nitrogen levels are contributing to the growth of opportunistic green seaweed mats in many parts of the Solent area and that these mats smother estuarine habitats and restrict the growth, distribution and variety of food available for wetland birds;
- although much of this nitrogen is from agriculture, a smaller but still substantial proportion is from wastewater discharges;
- there is currently little certainty that future development of the scale proposed in the PUSH area can ensure no adverse effect on the integrity of the Solent's European designations without mitigation;
- while various actions to reduce nutrient inputs to the Solent have already been taken, further reductions are required from both agricultural and development growth sources and Natural England and the Environment Agency are keen to work with the PUSH authorities and water companies to develop a strategic solution.

5.148 As described in the section on water quantity effects above, the PUSH IWMS[63] provides evidence relevant to the eastern part of New Forest District with respect to the potential effects of sub regional housing growth on the water environment. In relation to potential effects of growth on water quality, the key findings of the IWMS of relevance to the HRA of the Local Plan Part 1 are summarised below.

[61] May, L., Withers, P.J., Stratford, C., Bowes, M., Robinson, D. & Gozzard, E. 2015. Development of a risk assessment tool to assess the significance of septic tanks around freshwater SSSIs: Phase 1 – Understanding better the retention of phosphorus in the drainage field. Natural England Commissioned Reports, NECR171.

[62] Addressing the needs of housing growth and protecting the Marine Environment in the Solent area, Environment Agency and Natural England, October 2015

[63] Integrated Water Management Study, Amec Foster Wheeler for PUSH, May 2018

5.149 The IWMS notes that where a European site is not in favourable condition and conservation objectives are not being met due to water quality then any further degradation could lead to an adverse effect on the integrity of the site. It identifies two WwTWs serving New Forest District within the PUSH area: Ashlett Creek (Fawley) and Slowhill Copse (Marchwood) and the capacity of these to accommodate planned growth in the PUSH area is assessed, as summarised below.

5.150 Ashlett Creek WwTW in Fawley discharges to Ashlett Creek, a tidal creek that drains to a part of Southampton Water that forms part of Solent Maritime SAC and Solent and Southampton Water SPA and Ramsar site. It is understood that this WwTW would serve strategic allocation SS 4 The former Fawley Power Station. Slowhill Copse WwTW in Marchwood discharges to a part of Southampton Water that forms part of Solent Maritime SAC and Solent and Southampton Water SPA and Ramsar site. It is understood that this WwTW would serve strategic allocations SS 2 Land south of Bury Road, Marchwood and SS 3 Land at Cork's Farm, Marchwood. As set out in Appendix 1, the interest features of these European sites are sensitive to changes in water quality. In addition, the IWMS states that information provided by the Environment Agency and/or Natural England indicates that there is evidence of existing eutrophication within all of these European sites.

5.151 In reviewing the cumulative impacts of growth and its implications for New Forest District and the WwTWs serving it (Ashlett Creek and Slowhill Copse), the IWMS concludes:

"The water quality assessments to date indicate that there are no significant constraints to prevent future housing growth related to these WwTWs. However, there is a degree of uncertainty and gaps in the evidence base and it will be necessary to respond to emerging evidence to determine whether housing development in later stages of the plan period would require mitigation."

5.152 Further information in the 'Action Plan' section of the IWMS clarifies that a key issue behind the uncertainty as to whether growth can be delivered without adverse effects on integrity is that it is not yet known how effective catchment measures (i.e. management of nutrient sources such as agriculture) will be. Such measures take time to make a measureable difference to water quality because of the time taken to travel from sources through groundwater to the receiving environment. To address this uncertainty, the PUSH IWMS states that it is necessary for the PUSH local planning authorities (LPAs), statutory agencies and water companies to work together to consider incoming evidence and assess the water quality impacts at interest feature level as is required in line with the Habitats Regulations. An action plan is recommended to recognise and plan for the uncertainty in both water quality and water resources. The actions of relevance to water quality are:

- PUSH authorities, Natural England, and the Environment Agency should continue to work together, and prioritise the production of a statement making clear their joint position.
- A Water Quality Working Group should be established, involving (at a minimum) each of the PUSH LPAs, Southern Water, Portsmouth Water, Natural England, and the Environment Agency. This group should meet regularly and receive and discuss new evidence as it emerges, taking action where necessary. As a minimum, the remit should include delivery of WwTW improvements listed in appendix to IWMS, refresh the IWMS in 2020, and scope any potential future Nutrient Management Plan.
- To deal effectively with residual uncertainty around water quality, Local Plans must:
    - acknowledge uncertainty as to whether housing development in the later stages of the plan period would require mitigation;
    - acknowledge that effective mitigation may mean development proceeding on a nutrient neutral basis in some catchments;
    - indicate that LPA's will work in partnership to secure timely mitigation if emerging evidence indicates it is needed; and
    - identify where phasing of new development is necessary to ensure that headroom in the most sensitive WwTWs is not exceeded prior to the review of IWMS and any necessary mitigation being identified and secured.

5.153 Informal consultation with Natural England[64] confirms that there are high levels of nitrogen and phosphorus in the water environment of the Solent area, with evidence of eutrophication at some designated sites. It states that the IWMS work has identified uncertainty as to whether housing development in the later stages of the plan period would require mitigation. In light of this uncertainty, Natural England advises that a nutrient budget should be calculated for larger developments in New Forest District (defined as those in excess of approximately 200-300 houses and all EIA developments) and that they should achieve nutrient neutrality.

Evidence of potential water quality effects on the River Avon/Avon Valley European sites

5.154 As noted in Appendix 1, River Avon SAC and Avon Valley SPA and Ramsar site are known to be sensitive to and already suffering from elevated phosphorus levels. This is confirmed by information on the Hampshire Avon catchment within the South West river basin management plan[65] which cites poor water quality, particularly diffuse sources of phosphorus, nitrate and sediment from rural areas.

5.155 A Nutrient Management Plan[66] (NMP) has been published to facilitate reduction and management of phosphorus levels in the River Avon SAC. This is to comply with Habitats Directive obligations since phosphorus is identified as posing the most significant threat to the site's qualifying features. The effects of nitrogen and other pollutants are addressed in a separate plan for the Avon catchment but this is not considered further since it relates to diffuse sources (primarily agriculture) rather than WwTW discharges that are linked to housing growth. In its summary of recommendations affecting housing and development the NMP states that where the existing permitted headroom of a WwTW can accommodate further development, further connections should be allowed without the need for an Appropriate Assessment provided that these would not compromise deliverability of the NMP. Where development would mean that a WwTW reaches its permitted headroom or otherwise require any variation in its discharge consent the change of consent in accordance with permitting regulations will be subject to a full Habitats Regulations Assessment.

5.156 In order to determine whether significant water quality effects on the River Avon/Avon Valley European sites are likely prior to mitigation, therefore, an assessment is first required of whether the housing growth envisaged by the Local Plan Part 1 in the Avon Valley and Downlands sub area can, either alone or in combination with other development, be accommodated by WwTW that discharge to the catchment of the River Avon SAC. No water cycle study is available for New Forest District outside of the PUSH area to inform this judgement although the consultation responses summarised in Table 5.3 indicate that, strategic allocations SS 15 East of Ashford, SS 16 Land to the north of Station Road, Ashford, SS 17 Land at Whitsbury Road, Fordingbridge, and SS 18 Land at Burgate, Fordingbridge could not be accommodated without capacity enhancement.

5.157 Even where further development can be accommodated within existing WwTW discharge consents, the NMP requires a second test: whether the development would compromise deliverability of the Nutrient Management Plan. In this regard, the NMP identifies various constituent water bodies within the Avon Valley SAC and identifies 'Hampshire Avon (Lower)' as one of two where housing growth is most likely to have the potential to compromise the delivery of the NMP. Table D.6 of the NMP indicates that both Ringwood WwTW and Fordingbridge WwTW discharge to the Hampshire Avon (Lower) catchment.

5.158 The NMP states that while development which connects via mains drainage to WwTWs which discharge to the high risk water bodies can be assumed not to compromise the deliverability of the plan until monitoring or modelling of impacts on river water quality results suggest otherwise[67], such development might be required to contribute[68] to phosphorus removal or off-setting during the lifetime of the NMP. It is understood that strategic allocations SS 13, SS 14 and SS 15 would be served by Ringwood WwTW and that strategic allocations SS 16, SS 17 and

[64] Informal comments on Draft (Pre-Submission)local plan review dated 27 April 2018

[65] Part 1: South West river basin district river basin management plan, Environment Agency & Defra, Dec 2015.

[66] River Avon Special Area of Conservation Nutrient Management Plan for Phosphorus, Natural England, the Environment Agency and Wiltshire Council, 2015

[67] Annex 3 to the NMP *Evidence and Monitoring Plan* will describe the arrangements for this monitoring and modelling but it has not yet been published

[68] Annex 2 to the NMP *Supplementary Planning Document* will provide further detail regarding such developer contributions but it has not yet been published

SS 18 would be served by Fordingbridge WwTW. All of these allocations might therefore require mitigation of their potential effects on the deliverability of the Nutrient Management Plan.

5.159 Consultation with Natural England[69,70] has revealed that subsequent to publication of the NMP, Natural England and the Environment Agency have become aware of new evidence that affects two aspects of that plan such that the targets within it are unlikely to be achieved by the planned date of 2021. Firstly, evidence now suggests that discharge concentrations from WwTWs are higher than the NMP assumed. Secondly, new evidence suggests that Catchment Sensitive Farming measures are less effective than assumed. This new evidence will feed into a revised model but recommendations from this further work are not expected to be available until March 2019. The revised model may well conclude that some or all development will need to be phosphate neutral and on a precautionary basis Natural England therefore recommends that new development within the catchment of the Hampshire Avon be phosphate neutral until a long term solution is identified.

Discharges from private septic tanks or small sewage treatment plants

5.160 In line with the methodology described above, the Local Plan Part 1 site allocations were reviewed to determine whether any of them are within 30 m of a European site or a water course draining to a European site. The potentially affected European sites within this zone of influence and the mitigation provided by policy requirements in the Local Plan Part 1 allocation policies are set out in Table 5.5 in the 'Existing mitigation' section below.

Contaminated surface runoff

5.161 In line with the methodology described above, the Local Plan Part 1 site allocations were reviewed to determine whether any of them are within 30 m of a European site or a water course draining to a European site. The potentially affected European sites within this zone of influence and the mitigation provided by policy requirements in the Local Plan Part 1 allocation policies are set out in Table 5.6 in the 'Existing mitigation' section below.

Existing mitigation

General mitigation in relation to water quality

5.162 *Policy 13: Design quality and local distinctiveness* requires development to incorporate measures to reduce environmental impacts wherever they are appropriate and capable of being effective such as Sustainable Drainage Systems (SuDS).

5.163 *Policy 34: Developer contributions* requires that all developments provide, or contribute proportionately to the provision of, any on-site and off-site infrastructure necessary and reasonably required to support the development and mitigate its impacts to achieve a sustainable development. Development that would be unsustainable without the inclusion of necessary but unfunded infrastructure will be refused planning permission.

5.164 The volume and quality of treated wastewater discharges from WwTWs to receiving water courses is subject to regulation by the Environment Agency via the grant and review of environmental permits. This environmental permitting regime operated by the Environment Agency should ensure that any development requiring variation in the discharge consent for a WwTW does not result in deterioration in downstream water quality as a result of that variation.

Capacity in sewer and WwTW infrastructure to accommodate strategic allocations

5.165 Table 5.3 sets out the sewer and WwTW infrastructure capacity/connectivity issues identified through NFDC's consultation with service providers and the Environment Agency. In general, these issues were deemed by the Council to be too detailed to be addressed via the strategic allocation policies of the Local Plan Part 1 and will, instead, be picked up in the Infrastructure Development Plan, where appropriate. Nevertheless, some allocation policy provisions may mitigate the related potential effects on water quality from sewer flooding or overloading of WwTWs and these are also noted in Table 5.3. It was not possible to identify exactly which European sites might be affected by sewer flooding in different areas of the District but almost all

[69] Informal comments on Draft (Pre-Submission)local plan review dated 27 April 2018

[70] Emails, telephone conversations and a letter dated 28/2/2018 provided by Natural England to neighbouring New Forest National Park Authority during consultation on its Submission Draft (Regulation 19) Local Plan

of the District's water courses ultimately drain to the Avon Valley and/or Solent and Southampton Water European sites.

Table 5.3 Infrastructure issues for strategic allocations and related mitigation

Strategic site	Infrastructure issues of relevance to water quality[71]	Mitigation provided by allocation policy
SS 1 Land to the north of Totton	Limited capacity in local public sewers and connection could lead to increased risk of flooding unless network reinforcement is undertaken in advance. Not a constraint to development provided that development is phased to align with delivery of wastewater infrastructure.	Supporting text notes that, as set out in the Infrastructure Delivery Plan, infrastructure requirements for the site include *"A capacity appraisal of the sewage network and enhancements to sewer capacity if required, which will need to match the rate of development."*
SS 2 Land south of Bury Road, Marchwood	Limited capacity in local public sewers and connection could lead to increased risk of flooding unless network reinforcement is undertaken in advance. Not a constraint to development provided that development is phased to align with delivery of wastewater infrastructure.	Supporting text notes that, as set out in the Infrastructure Delivery Plan, infrastructure requirements for the site include *"A capacity appraisal of the sewage network and enhancements to sewer capacity if required, which will need to match the rate of development."*
SS 3 Land at Cork's Farm, Marchwood	Limited capacity in local public sewers and connection could lead to increased risk of flooding unless network reinforcement is undertaken in advance. Not a constraint to development provided that development is phased to align with delivery of wastewater infrastructure.	Supporting text notes that, as set out in the Infrastructure Delivery Plan, infrastructure requirements for the site include *"A capacity appraisal of the sewage network and enhancements to sewer capacity if required, which will need to match the rate of development."*
SS 4 The former Fawley Power Station	The proposer of this site was advised by the Environment Agency to check that Ashlett Creek Fawley WwTW would have capacity to deal with the discharges from the development proposed.[72] The promoter has recently completed a study to investigate this issue and confirmed to NFDC that sufficient capacity exists at this WwTW.	Supporting text notes that, as set out in the Infrastructure Delivery Plan, infrastructure requirements for the site include "Capacity for foul water discharges to Ashlett Creek sewage treatment will require investigation."
SS 7 Land north of Manor Road, Milford on Sea	Limited capacity in local public sewers and connection could lead to increased risk of flooding unless network reinforcement is undertaken in advance. Not a constraint to development provided that development is phased to align with delivery of wastewater infrastructure.	Supporting text notes that, as set out in the Infrastructure Delivery Plan, infrastructure requirements for the site include *"A capacity appraisal of the sewage network and enhancements to sewer capacity if required, which will need to match the rate of development."*
SS 11 Land to the south of Gore Road, New Milton	Limited capacity in local public sewers and connection could lead to increased risk of flooding unless network reinforcement is undertaken in advance. Not a constraint to development provided that development is phased to align with delivery of wastewater infrastructure.	Supporting text notes that, as set out in the Infrastructure Delivery Plan, infrastructure requirements for the site include *"A capacity appraisal of the sewage network and enhancements to sewer capacity if required, which will*

[71] Raised by infrastructure providers or Environment Agency during earlier consultation by NFDC

[72] Stated in Natural England correspondence dated 22 August 2016, following up on various point discussed at a 9 August 2016 stakeholder consultation meeting

Strategic site	Infrastructure issues of relevance to water quality[71]	Mitigation provided by allocation policy
		need to match the rate of development."
SS 12 Land to the south of Derritt Lane, Bransgore	Limited capacity in local public sewers with sewer flooding recorded under storm conditions – developers will need to work with Wessex Water to complete a capacity appraisal; developers will need to demonstrate that capacity can be provided for connection to mains sewer network, e.g. via improvements to Wiltshire Gardens sewage pumping station.	Policy states that site specific considerations to be addressed include *"Additional sewer and pumping station capacity will need to be provided"*. Supporting text notes that, as set out in the Infrastructure Delivery Plan, infrastructure requirements for the site include *"A capacity appraisal of the sewage network and enhancements to sewer capacity if required, which will need to match the rate of development.*
SS 13 Land at Moortown Lane, Ringwood	Limited capacity in public foul sewer systems which pump flows to the treatment works – a dedicated off-site pumped connection will be required prior to upstream development	Policy states that site specific considerations to be addressed include provision of a new connection to the Ringwood sewage treatment works with sufficient capacity to serve this site and to also serve and prove a point of connection for SS 14 Land to the north of Hightown Road, Ringwood. Supporting text notes that, as set out in the Infrastructure Delivery Plan, infrastructure requirements for the site include *"A dedicated off site connecting sewer or pumped connection to Ringwood Sewage Treatment Works"*.
SS 14 Land to the north of Hightown Road, Ringwood	Public foul water sewer system approaching capacity and Ringwood suffers from groundwater induced sewer flooding; foul water strategy may require a dedicated off-site connecting sewer or pumped connection.	Policy states that site specific considerations to be addressed include provision of a new connection to the Ringwood sewage treatment works bypassing the town centre sewer network, to be delivered in conjunction with SS 13 Land at Moortown Lane, Ringwood. East of Ringwood. Supporting text notes that, as set out in the Infrastructure Delivery Plan, infrastructure requirements for the site include *"A dedicated off site connecting sewer or pumped connection to Ringwood Sewage Treatment Works"*.
SS 15 East of Ashford	Issues raised by Wessex Water are the same as for site North West of Fordingbridge. Site promoters have acknowledged to NFDC that the Ashford site would need to cooperate with SS 16- SS 18 to deliver a sewer connection.	Supporting text requires that *"The development will need to provide a connection to the nearest point of adequate capacity in the sewerage network, as advised by the service provider, and/or to work cooperatively with the service provider to deliver a suitable sewer connection to the nearest waste water treatment works with*

Strategic site	Infrastructure issues of relevance to water quality[71]	Mitigation provided by allocation policy
		adequate capacity".
SS 16 North-west of Fordingbridge	No local foul water capacity for development of this scale – capacity appraisal required and phased approach to provide necessary strategic network capacity; Fordingbridge suffers from groundwater-induced sewer flooding; long off-site connecting sewers needed to transfer flows directly to Fordingbridge WwTW; Local Planning Authority (LPA) recommended to secure a foul drainage strategy, including development phasing, with Wessex Water through a SPD along with supporting financial arrangements; proposals will exceed capacity of Fordingbridge WwTW – capacity enhancement works will be needed, phased with development, and it may take several years to secure land and planning consents.	Policy states that site specific considerations to be addressed include that the developers of SS 16, SS 17 and SS 18 *"will be required to work cooperatively with each other and with Wessex Water to deliver a suitable foul sewer connection to the Fordingbridge treatment works".* This point is reiterated in the supporting text.

Water quality issues in Southampton Water and the Solent European sites

5.166 Supporting text to *Policy 10: Mitigating the impacts of development on International Nature Conservation sites* recognises the current uncertainty as to whether or not housing development in southern Hampshire in the later part of the Plan Period would be likely to have a significant adverse effect on the Solent due to nutrient enrichment. It commits the Council to proportionately supporting the Environment Agency, Southern Water and Natural England, water companies and surrounding authorities in the development of any strategic solution to reducing nutrient inputs to the Solent designated sites from wastewater discharges. It also states that, where necessary, based on evidence of harmful impacts or by application of the precautionary principle, additional mitigation measures may be applied to development that directly or indirectly discharges waste water into the Solent.

5.167 Site-specific mitigation is also provided by the allocation policies for sites that would be served by one of the two WwTWs in relation to which the IWMS has highlighted the potential need for mitigation later in the plan period (see para. 5.151 above) as shown in Table 5.4.

Table 5.4 Site-specific mitigation for Solent water quality issues

Strategic site	Slowhill Copse WwTW	Mitigation provided by allocation policy
SS 2 Land south of Bury Road, Marchwood	Slowhill Copse WwTW	Pending completion of their Water Resource Management Plan there is a degree of uncertainty with regard to Southern Water's waste water plans to support planned housing growth. Until this is resolved development proposals for more than 200 houses and for all EIA developments served by Slowhill Copse WwTW (Marchwood) should prepare a nutrient budget and achieve nutrient neutrality.
SS 3 Land at Cork's Farm, Marchwood		
SS 4 The former Fawley Power Station	Ashlett Creek WwTW	Pending completion of their Water Resource Management Plan there is a degree of uncertainty with regard to Southern Water's waste water plans to support planned housing growth. Until this is resolved development proposals for more than 200 houses and for all EIA developments served by Ashlett Creek WwTW (Fawley) should prepare a nutrient budget and achieve nutrient neutrality.

Water quality issues in the River Avon/Avon Valley European sites

5.168 *Policy 10: Mitigating the impacts of development on International Nature Conservation sites* states that development that would have adverse effects on the integrity of the River Avon SAC, Avon Valley SPA, and Avon Valley Ramsar site will not be permitted. For residential development the policy notes that pre-approved mitigation measures will be described in the forthcoming River Avon Nutrient Management Plan (2019 Update) and that currently approved mitigation measures for residential developments within the catchment of the River Avon include a financial contribution or other appropriate mechanisms to achieve phosphorus-neutral development.

5.169 Supporting text to *Policy 10: Mitigating the impacts of development on International Nature Conservation sites* recognises that existing phosphorus concentrations in the River Avon have reached a level where adverse effects on the integrity of River Avon SAC cannot be ruled out and notes Natural England and the Environment Agency's advice that new development be phosphorus neutral until a long term solution is identified. It goes on to state that the Planning Authorities in the River Avon catchment are working with Wessex Water, Natural England and the Environment Agency to identify suitable interim mitigation or off-setting measures to enable development proposals to achieve phosphate neutrality, such as additional phosphorus stripping at waste water treatment works. The full range of measures will be published as an update to the NMP or in an equivalent document.

5.170 As noted at para. 5.158 above, strategic allocation policies SS 13, SS 14, SS 15, SS 16, SS 17, SS 18 related to sites draining to WwTWs that discharge to the Hampshire Avon with potential impacts from phosphate discharges on the River Avon SAC and Avon Valley SPA and Ramsar site. In addition to the mitigation provided by Policy 10, these site allocations provide further mitigation as their supporting text notes that, as set out in the Infrastructure Delivery Plan, infrastructure requirements for the site include *"Measures or contributions to achieve phosphorus neutral development"*.

Discharges from private septic tanks or small sewage treatment plants

5.171 Table 5.5 identifies the Local Plan Part 1 site allocations that are within 30 m of a European site or a water course draining to a European site and any site-specific policy that may mitigate the related potential effects on water quality from private septic tanks or small sewage treatment plants.

Table 5.5 Discharges from private septic tanks or small sewage treatment plants – potential effects and mitigation

Strategic site	European sites/ connected water courses within 30 m	Mitigation provided by allocation policy
SS 1 Land to the north of Totton	Small stream within site draining to River Test and thereby to Solent Maritime SAC, Solent and Southampton Water SPA and Ramsar site	None
SS 2 Land south of Bury Road, Marchwood	Solent Maritime SAC, Solent and Southampton Water SPA and Ramsar site	None
SS 3 Land at Cork's Farm, Marchwood	Solent Maritime SAC, Solent and Southampton Water SPA and Ramsar site	None
SS 4 The former Fawley Power Station	Solent Maritime SAC, Solent and Southampton Water SPA and Ramsar site	None
SS 5 Land at Milford Road, Lymington	Small streams on site boundary and within 30 m of site draining ultimately to Solent Maritime SAC, Solent and Southampton Water SPA and Ramsar site	None
SS 8 Land at Hordle Lane, Hordle	Small streams on site boundary and within 30 m of site draining ultimately to Solent Maritime SAC, Solent and Southampton Water SPA and Ramsar site	None
SS 10 Land to the east of Brockhills Lane, New Milton	Small streams on site boundary and within 30 m of site draining ultimately to Solent Maritime SAC, Solent and Southampton Water SPA and Ramsar site	None
SS 12 Land to the south of Derritt Lane, Bransgore	Small stream on boundary draining to River Avon SAC and Avon Valley SPA and Ramsar site	None

Strategic site	European sites/ connected water courses within 30 m	Mitigation provided by allocation policy
SS 14 Land to the north of Hightown Road, Ringwood	Small stream on site boundary draining to River Avon SAC and Avon Valley SPA and Ramsar site	Provision of a new connection to the Ringwood sewage treatment works bypassing the town centre sewer network, to be delivered in conjunction with Strategic Site 13: Land at Moortown Lane.
SS 15 Land at Snails Lane, Ringwood	Small stream on site boundary draining to River Avon SAC and Avon Valley SPA and Ramsar site	None
SS 16 Land to the north of Station Road, Ashford	Small stream running through site draining to River Avon SAC and Avon Valley SPA and Ramsar site	Work cooperatively to deliver a suitable foul sewer connection to the Fordingbridge treatment works
SS 17 Land at Whitsbury Road, Fordingbridge	Small stream running through site draining to River Avon SAC and Avon Valley SPA and Ramsar site	Work cooperatively to deliver a suitable foul sewer connection to the Fordingbridge treatment works
SS 18 Land at Burgate, Fordingbridge	River Avon SAC and Avon Valley SPA and Ramsar site	Work cooperatively to deliver a suitable foul sewer connection to the Fordingbridge treatment works

5.172 In addition to the site-specific mitigation in Table 5.5, further mitigation for potential discharges from septic tanks/ small sewage treatment plants is provided by the fact that any new discharge to the ground from a septic tank or small sewage treatment plant within 50 m of a European site or new discharge to surface waters within 500 m of a European site requires a permit from the Environment Agency.[73] Granting of such a permit would take into account the requirements of the Habitats Regulations.

Contaminated surface runoff

5.173 Table 5.6 identifies the Local Plan Part 1 site allocations that are within 30 m of a European site or a water course draining to a European site and any site-specific policy that may mitigate the related potential effects on water quality from contaminated surface runoff.

Table 5.6 Contaminated surface runoff in site allocation policy – potential effects and mitigation

Strategic site	European sites/ connected water courses within 30 m	Mitigation provided by allocation policy
SS 1 Land to the north of Totton	Small stream within site draining to River Test and thereby to Solent Maritime SAC, Solent and Southampton Water SPA and Ramsar site	None
SS 2 Land south of Bury Road, Marchwood	Solent Maritime SAC, Solent and Southampton Water SPA and Ramsar site	None
SS 3 Land at Cork's Farm, Marchwood	Solent Maritime SAC, Solent and Southampton Water SPA and Ramsar site	None
SS 4 The former Fawley Power Station	Solent Maritime SAC, Solent and Southampton Water SPA and Ramsar site	Master planning objectives include: *"integrating planting and design features…to manage and minimise the impacts of development on the Solent foreshore and other areas of habitat value."*
SS 5 Land at Milford Road, Lymington	Small streams on site boundary and within 30 m of site draining ultimately to Solent Maritime SAC, Solent and Southampton Water SPA and Ramsar site	Site specific considerations to be addressed include: *"Measures to manage water course flood risks south of Milford Road along the eastern perimeter and in the south-west corner of the site, as part of an integrated site approach to sustainable urban drainage."*
SS 8 Land at	Small streams on site boundary	Master planning objectives include: *"Creating a*

[73] Environment Agency. (2015) *General binding rules: small sewage discharge to the ground*. [Online] Available from: https://www.gov.uk/guidance/general-binding-rules-small-sewage-discharge-to-the-ground

Strategic site	European sites/ connected water courses within 30 m	Mitigation provided by allocation policy
Hordle Lane, Hordle	and within 30 m of site draining ultimately to Solent Maritime SAC, Solent and Southampton Water SPA and Ramsar site	*natural recreational greenspace area …incorporating sustainable drainage measures to manage water course flood risks and surface water run-off."*
SS 10 Land to the east of Brockhills Lane, New Milton	Small streams on site boundary and within 30 m of site draining ultimately to Solent Maritime SAC, Solent and Southampton Water SPA and Ramsar site	Master planning objectives include: *"Providing a central north-south greenspace corridor…buffering…the Danes Stream."*
SS 12 Land to the south of Derritt Lane, Bransgore	Small stream on boundary draining to River Avon SAC and Avon Valley SPA and Ramsar site	Master planning objectives include: *"Creating a new village green…and a natural recreational greenspace corridor …incorporating sustainable urban drainage and improved water course and surface water management…"*
SS 14 Land to the north of Hightown Road, Ringwood	Small stream on site boundary draining to River Avon SAC and Avon Valley SPA and Ramsar site	Supporting text notes that *"SUDs should include measures to reduce the run off silt and diffuse pollutants into the River Avon"*
SS 15 Land at Snails Lane, Ringwood	Small stream on site boundary draining to River Avon SAC and Avon Valley SPA and Ramsar site	Supporting text notes that *"SUDs should include measures to reduce the run off silt and diffuse pollutants into the River Avon"*
SS 16 Land to the north of Station Road, Ashford	Small stream running through site draining to River Avon SAC and Avon Valley SPA and Ramsar site	None
SS 17 Land at Whitsbury Road, Fordingbridge	Small stream running through site draining to River Avon SAC and Avon Valley SPA and Ramsar site	None
SS 18 Land at Burgate, Fordingbridge	River Avon SAC and Avon Valley SPA and Ramsar site	Supporting text notes that *"SUDs should include measures to reduce the run off silt and diffuse pollutants into the River Avon"*

5.174 In addition to the site-specific mitigation in Table 5.5, further mitigation for potential contaminated surface runoff is provided by *Policy 13: Design quality and local distinctiveness*. This requires that all new developments: *"Incorporate design measures that…reduce environmental impacts wherever they are appropriate and capable of being effective, such as…the use of Sustainable Drainage Systems (SuDS)"*.

Conclusions and recommendations

Capacity in sewer and WwTW infrastructure to accommodate strategic allocations

5.175 As described in Table 5.3, a number of capacity issues in WwTWs or the foul sewer network have been identified during NFDC's consultation with infrastructure providers on the proposed strategic allocations. As set out in Table 5.3, these are explicitly addressed by requirements for new connections or additional capacity in the allocation policies. It is therefore **possible to rule out adverse effects on integrity on any hydrologically connected European sites from these allocations in relation to wastewater infrastructure capacity issues and the potential effect of these on water quality**.

Treated wastewater discharges: Solent and Southampton Water European sites

5.176 The PUSH IWMS[74] and the Natural England and the Environment Agency guidance note[75], indicate that there is a eutrophication problem in the European sites of the Solent and Southampton

[74] Integrated Water Management Study, Amec Foster Wheeler for PUSH, May 2018

[75] Addressing the needs of housing growth and protecting the Marine Environment in the Solent area, Environment Agency and Natural England, October 2015

Water. Discharges from WwTWs serving New Forest District will add nutrients to Solent and Isle of Wight Lagoons SAC, Solent Maritime SAC, Solent and Dorset Coast pSPA, Solent and Southampton Water SPA, and Solent and Southampton Water Ramsar site. The in combination assessment contained within the IWMS identifies uncertainty as to whether housing development in later stages of the plan period will require mitigation to avoid adverse effects on the integrity of these European sites.

5.177 The PUSH IWMS action plan and informal consultation with Natural England[76] have recommended mitigation (described above) to address this uncertainty. These recommendations are addressed by supporting text to *Policy 10: Mitigating the impacts of development on International Nature Conservation sites* and by allocation policies SS 2, SS 3 and SS 4, the strategic sites within the catchments of the WwTWs of concern. **Adverse effects on the integrity of Solent and Isle of Wight Lagoons SAC, Solent Maritime SAC, Solent and Dorset Coast pSPA, Solent and Southampton Water SPA, and Solent and Southampton Water Ramsar site in relation to treated wastewater discharges can therefore be ruled out**.

Water quality effects on the River Avon/Avon Valley European sites

5.178 In the absence of mitigation, development served by WwTWs discharging to the Hampshire Avon could result in adverse effects on the integrity of River Avon SAC and Avon Valley SPA and Ramsar site due to the effects of increased phosphorus on water quality. *Policy 10: Mitigating the impacts of development on International Nature Conservation sites* and supporting text recognise this issue, make clear NFDC's involvement in joint working to revise the evidence and actions within the NMP, and require financial contributions or other appropriate mechanisms to achieve phosphorus-neutral development. The effectiveness of this policy is reinforced by reference to the issue in relevant strategic site allocation policies and therefore **adverse effects on the integrity of the River Avon SAC and Avon Valley SPA and Ramsar site due to phosphate discharges from WwTWs serving the development proposed by the Local Plan Part 1 can be ruled out**.

Discharges from private septic tanks or small sewage treatment plants

5.179 As identified in Table 5.5, a large proportion of the strategic allocations are within 30 m of a European site or of a water course upstream of a European site and no mitigation is contained in Local Plan Part 1 policy to avoid potential adverse effects on water quality from private septic tanks or small sewage treatment works. The potential risk to the identified European sites is adequately mitigated by the fact that any new discharge to the ground from a septic tank or small sewage treatment plant within 50 m of a European site or new discharge to surface waters within 500 m of a European site requires a permit from the Environment Agency.[77] Since granting of such a permit would take into account the requirements of the Habitats Regulations, potential **adverse effects on integrity on any European site in relation to water quality from private septic tanks or small sewage treatment works can be ruled out both alone and in combination**.

Contaminated surface runoff

5.180 As identified in Table 5.6, a large proportion of the strategic allocations are within 30 m of a European site or of a water course upstream of a European site. While some of these site allocation policies include a requirement for sustainable urban drainage or a generic requirement for design features to minimise impacts on nearby designated habitat, only three of those identified in Table 5.6 directly addresses the potential for contaminated surface runoff. However, additional mitigation is provided by the requirement in *Policy 13: Design quality and local distinctiveness for* all new developments to: *"Incorporate design measures that…reduce environmental impacts wherever they are appropriate and capable of being effective, such as…the use of Sustainable Drainage Systems (SuDS)"*. **Adverse effects on integrity on any European site in relation to contaminated surface water runoff can therefore be ruled out**, **both alone and in combination**.

[76] Informal comments on Draft (Pre-Submission)local plan review dated 27 April 2018

[77] Environment Agency. (2015) *General binding rules: small sewage discharge to the ground*. [Online] Available from: https://www.gov.uk/guidance/general-binding-rules-small-sewage-discharge-to-the-ground

6 Conclusions and next steps

Conclusions

6.1 The HRA screening of the Proposed Submission Local Plan Part 1, alone and in combination with other relevant plans and projects, was unable to rule the following types of likely significant effect on European sites:

- Direct loss or physical damage to European sites;
- Loss or damage to offsite supporting habitat;
- Urban edge effects;
- Changes in air quality;
- Traffic collision risk;
- Recreation pressure;
- Changes in water quantity; and
- Changes in water quality.

6.2 An Appropriate Assessment was carried to determine whether any of these types of effect would result in adverse effects on the integrity of a European site, either alone or in combination with other plans or projects. This found that effective avoidance and reduction measures have been secured and therefore **the New Forest District Local Plan Part 1 will not have an adverse effect on the integrity of any European site, either alone or in combination with other plans and projects**.

Next steps

6.3 This HRA report is being published alongside Regulation 19 consultation on the Proposed Submission Local Plan Part 1. An addendum to or amended version of the HRA may then be required to consider any modifications to the Local Plan Part 1 proposed by NFDC or to respond to any issues raised by Natural England in relation to the method or findings of the HRA of the Proposed Submission version of the Local Plan Part 1.

LUC

June 2018

Appendix 1
European sites information

This Appendix contains relevant information about the following European sites:

- River Avon SAC;
- Avon Valley SPA;
- Avon Valley Ramsar site;
- Dorset Heaths SAC;
- Dorset Heathlands SPA;
- Dorset Heathlands Ramsar site;
- The New Forest SAC;
- New Forest SPA;
- The New Forest Ramsar site;
- River Itchen SAC;
- Solent and Dorset Coast pSPA;
- Solent and Isle of Wight Lagoons SAC;
- Solent Maritime SAC;
- Solent and Southampton Water SPA;
- Solent and Southampton Water Ramsar site.

River Avon SAC

Site area: 416.57 ha

Overview of site and its location

The River Avon SAC is one of the richest chalk rivers in Europe. It is important for its fish population, invertebrate, which include populations of Desmoulins Whorl Snail and its in-river plant community habitat as well as bankside habitats.

Qualifying Features

H3260 Water courses of plain to montane levels with the *Ranunculion fluitantis* and *Callitricho-Batrachion* vegetation

S1016 *Vertigo moulinsiana*: Desmoulin`s whorl snail

S1095 *Petromyzon marinus*: Sea lamprey

S1096 *Lampetra planeri*: Brook lamprey

S1106 *Salmo salar:* Atlantic salmon

S1163 *Cottus gobio:* Bullhead

Pressures and threats

Physical modification

The Strategic Framework for the Restoration of the River Avon (Halcrow and GeoData 2009) found 59% of the length of the River Avon, 36% Nadder, 33% Wylye, 23% Till, 6% Dockens and 2% Bourne to be partially, significantly or severely modified. Physical habitat modifications have caused simplification of the biotope mosaics (substrate types, variations in flow, channel width and depth, in-channel and side-channel sedimentation features, bank profiles, erosion features, in-channel and bankside vegetation cover and woody debris) and impact both on the SAC chalk stream habitat feature itself and also the levels of populations of the SAC species it supports. The Site Improvement Plan proposes options for the

full restoration, rehabilitation or enhancement covering the majority of the River Avon and associated watercourses.

Siltation

Excessive fine sediment supply can lead to the smothering of coarse substrates and the loss of flora and fauna dependent on them. Sources of silt include run-off from agricultural land, roads, sewage and fish farm discharges.

Water pollution

Elevated levels of phosphate (P) lead to dominance by algae and a loss of characteristic plant species. Organic pollution, reducing dissolved oxygen levels (from microbial breakdown of organic material) effects biota and is also an issue. Water quality can also affect the habitat quality necessary to support Desmoulin's whorl snail. Diffuse pollution from agriculture, small point discharges and WwTW discharges are contributing to elevated levels of nutrients (by 10-50ug/l P) and reduced dissolved oxygen levels in parts of the SAC. Catchment sensitive farming measures (including agri-environment scheme resource protection measures) are estimated to deliver approximately 10% (maximum 20%) reduction in P levels. Whilst nearly all WwTWs within the catchment have been limited to 1mg/l P, and the locations in the Avon catchment that show improving water quality trends generally coincide with improvements to WwTWs in that reach of river, it is likely that further reductions of P will be necessary from WwTWs and also small point sources.

Water abstraction

Water abstraction causes lower than natural river flows that affects a range of habitat factors including current velocity, water depth, wetted area, substrate quality, dissolved oxygen levels and water temperature. The maintenance of both flushing flows and base flows, based on natural hydrological processes, is vital to the sustaining the SAC chalk stream habitat as a whole and to fish species at low flows in particular.

Changes in species distributions

Salmon are declining and the population level is below the critical conservation level. The reason for the decline is not fully understood and may relate to external factors and climate change; however in-channel habitat, flows, siltation and temperature may also be significant contributing factors (refer to the EA River Avon Salmon and Sea Trout Site Action Plan). These factors are being fully or partly addressed through the implementation of various plans; however are limited by budgetary constraints. Desmoulin's whorl snail habitat is fragmented throughout the catchment and of varying quality. The main issue affecting the habitat being site dryness or scrub cover and where hydrologically feasible this is being addressed through agri-environment and Conservation Enhancement Schemes.

Invasive species

Invasive plants cause progressive deterioration of bankside habitats by impoverishing the botanical diversity and causing winter instability due to lack of year round plant cover. This can increase the risk of erosion and siltation and thereby affect fish spawning habitat and gravel habitat supporting characteristic submerged plant communities. Invasive animal species such as Signal crayfish are known to impact on riverine species such as Salmon, but in the Avon their population size, distribution and potential impact is not quantitatively known.

Hydrological changes

Desmoulin's whorl snail is an annual species and requires localities that are stable hydrologically. Changes in the hydrology that may affect the species include flooding or drying out due to low ground water levels which may be linked to either changing climate conditions or over-abstraction.

Inappropriate weed control

Insensitive weed cutting may impact on the chalk stream habitat and the fish species it supports.

Habitat fragmentation

The SAC boundary may not adequately cover the extent of all Annex 1 and Annex 2 features and/or their supporting habitats. Several of the headwaters and the tributaries that are not included within the boundary of the SAC (or underpinning SSSI) are integral to and important to the natural functioning of

the whole river system and also support the habitats and species for which the site is selected and/or notified. The headwaters are also particularly sensitive to abstraction pressures.

Conservation objectives

Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring:

- the extent and distribution of qualifying natural habitats and habitats of qualifying species;
- the structure and function (including typical species) of qualifying natural habitats;
- the structure and function of the habitats of qualifying species;
- the supporting processes on which qualifying natural habitats and the habitats of qualifying species rely;
- the populations of qualifying species; and
- the distribution of qualifying species within the site.

Avon Valley SPA

Site area: 1351.1 ha

Overview of site and its location

The Avon Valley SPA is a wide river valley comprising mostly unimproved wet grassland and has importance for wintering wildfowl with Bewick's Swan and Gadwall as the notified features. The population of Bewick's Swan in the Avon Valley has decreased in line with a national trend of decrease, which is felt to be due to decreased breeding success. At the moment the SPA does not meet the threshold for them.

Qualifying Features

A037(NB) *Cygnus columbianus bewickii*: Bewick swan

A051(NB) *Anas strepera*: Gadwall

Pressures and threats

Water Pollution

Elevated levels of phosphate (P) lead to dominance by algae and a loss of characteristic plant species. Within Blashford Lakes high P levels could switch the system from a macrophyte dominated system to an algal dominated one resulting in poorer feeding conditions for gadwall. Organic pollution, reducing dissolved oxygen levels (from microbial breakdown of organic material) effects biota and is also an issue. Water quality can also affect the habitat quality necessary to support SPA species.

Changes in species distributions

Bewick's Swans are choosing to winter elsewhere even though the habitat in the SPA remains good for them.

Public Access/Disturbance

Dog walkers disturbing wildfowl in areas outside public rights of way is a concern.

Change in land management

Areas of wet grassland may become wetter due to higher river levels in summer. This may increase the difficulty of managing some areas of the floodplain by grazing and cutting in some years potentially impacting on the grazing quality for Bewick swans. This may be in part be linked to reduced weed cutting in the river channel but also changing summer rainfall patterns (e.g. increased summer storminess) related to climate change

Habitat fragmentation

The SAC and SPA boundaries may not adequately cover the extent of all designated features and/or their supporting habitats, e.g. several of the headwaters and the tributaries that are not included within the boundary are integral to and important to the natural functioning of the whole river system and also support the habitats and species for which the site is selected and/or notified. The headwaters are also particularly sensitive to abstraction pressures.

Conservation objectives

Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the aims of the Wild Birds Directive, by maintaining or restoring;

- the extent and distribution of the habitats of the qualifying features;
- the structure and function of the habitats of the qualifying features;
- the supporting processes on which the habitats of the qualifying features rely;
- the population of each of the qualifying features; and
- the distribution of the qualifying features within the site.

Avon Valley Ramsar site

Site area: 1385.1 ha

Overview of site and its location

The site encompasses the lower reaches of the River Avon and its floodplain between Bickton and Christchurch. The River Avon displays wide fluctuations in water level and parts of the valley are regularly flooded in winter. The Avon valley has a greater range of habitats and a more diverse flora and fauna than any other chalk river in Britain. The valley includes one of the largest expanses of unimproved floodplain grassland in Britain, including extensive areas managed as hay meadow.

Qualifying Features

Criterion 1: The site shows a greater range of habitats than any other chalk river in Britain, including fen, mire, lowland wet grassland and small areas of woodland.

Criterion 2: The site supports a diverse assemblage of wetland flora and fauna including several nationally-rare species.

Criterion 6: The site has species/populations occurring at levels of international importance.

Qualifying Species/populations (as identified at designation):

- Species with peak counts in winter: Gadwall, *Anas strepera strepera*

Species/populations identified subsequent to designation for possible future consideration under criterion 6.

- Species with peak counts in winter: Northern pintail, *Anas acuta* and Black-tailed godwit, *Limosa limosa islandica.*

Pressures and threats

Disturbance to vegetation through cutting / clearing

No information available.

Vegetation succession

Major issue arising from decline in traditional pastoral agriculture and lack of maintenance of ditch network.

Drainage/land-claim for agriculture

Management of water levels driven partly by agriculture but also urban flood risk management continues to have adverse effect on habitats.

Sedimentation/siltation

High levels of silt in river continue to degrade its interest, especially aquatic species but also contribute to silting-up ditches and deterioration of grasslands after flood events.

Introduction/invasion of non-native plant species

Crassula helmsii is increasing problem in Blashford Lakes following restoration of gravel pits, not controlled adequately through planning consents and technically difficult to control following withdrawal of herbicide approval.

Pollution – domestic sewage

No information available.

Pollution – agricultural fertilisers

No information available.

Recreational/tourism disturbance (unspecified)

Site is subject to wildfowling and game shooting, and associated activities (e.g. shooting hides, game cover management, pheasant release pens, etc.); full extent/intensity unknown but known to be considerable. Likewise fishing and related activities (e.g. fish stocking, vehicular and pedestrian access, fencing of river banks, vegetation management etc.). Access by people and dogs both on and off public rights of way is also a significant cause of disturbance in some areas.

Reservoir/barrage/dam impact: flow regime

No information available.

Conservation objectives

None available.

Dorset Heaths SAC

Site area: 5719.54 ha

Overview of site and its location

The Dorset heathlands is an extensive lowland heathland area in southern England. Formerly a single tract divided only by river valleys it is now fragmented. The heathlands comprise a wide range of different habitat types related to variation in soils, hydrology, water chemistry and land use history.

Qualifying Features

H4030 European dry heaths

H7230 Alkaline fens

H6410 Molinia meadows on calcareous, peaty or clayey-silt-laden soils (*Molinion caeruleae*)

H4010 Northern Atlantic wet heaths with Erica *tetralix*

H7150 Depressions on peat substrates of the *Rhynchosporion*

H7210 Calcareous fens with *Cladium mariscus* and species of the *Caricion davallianae*

H9190 Old acidophilous oak woods with *Quercus robur* on sandy plains

S1044 *Coenagrion mercuriale*: Southern damselfly

S1166 *Triturus cristatus*: Great crested newt

Pressures and threats

Inappropriate Scrub Control

Invasion of heath by trees and scrub results, over the long term, in the loss of heathland vegetation.

Public Access and Disturbance

Public access and disturbance affect large parts of the site mainly in the area of Poole/Bournemouth. Effects include habitat change from nutrients in dog faeces, and dumping of garden rubbish. On a number of sites the illicit use of heaths for motorcycle scrambling is resulting in disturbance and erosion; however motorcycle use on heathlands has generally declined relative to previous levels in response to site wardening and alternative facilities being made available.

Undergrazing

Generally grazing has now been successfully introduced on most of the larger heathland sites but there remain some ungrazed areas which would benefit from the introduction of an extensive grazing regime.

Forestry and Woodland Management

Several of the heathlands have conifer plantations on former heathland (most planted after notification) or mature conifers (or sometimes birch) that have invaded heathland. Favourable condition requires removal of these plantations for heathland restoration or, at least, management to increase the heath component within the woodland.

Drainage

Drainage is generally the result of ditches made within the site to endeavour to drain wet heath or mire. These drains invariably result in adverse changes to wet heath and mire communities in the vicinity.

Water Pollution

Pollution from different sources affects a number of areas. It comprises of pollution from adjacent agricultural land (run-off causing nutrient enrichment); leaching from adjacent landfill sites (3 sites); pollution from foul drainage (septic tanks, sewage discharge); urban run-off. Poor water quality from the sources listed can also impede the ability to restore the sites' natural hydrology. Silt/sand run-off from adjacent sand/gravel workings and now capped landfill have smothered part of a mire system at Upton Heath. Successful remedial work in the above cases is difficult.

Invasive Species

Various invasive plant and fish species are present, and these have the potential to impact negatively on the site's features.

Habitat Fragmentation

Dorset's lowland heathland is a fragmented remnant of a once extensive landscape. Some 86% of Dorset's heathland has been lost since the 1800s, and the surviving area is broken into many fragments. This curtails the genetic and physical interchange of a number of species and leads to edge effects on smaller sites. Moreover, species populations that are dependent on the wider habitat network of heath and forest beyond the designated site boundaries are vulnerable to changes within that wider network.

Conflicting Conservation Objectives

Heathland management aimed at maintaining open heathland does not cater for a number of rare species that require more specific management measures.

Wildfire/Arson

Fire predominantly affects the urban heaths (about a third of the heathland area in and around Poole and Bournemouth) which are subject to arson. The result is that some heaths are burned too frequently and in spring and summer.

Air Pollution: impact of atmospheric nitrogen deposition

Air pollution impacts on the site's vegetation diversity. As with most lowland heathlands and mires in England N deposition is close to, and in some cases exceeds critical loads (e.g. For Rhynchosporion).

Deer

High deer numbers have affected heathland and mire on Arne Heath, Holton Heath and Stokeford Heath. Deer numbers are now being reduced and the habitats are recovering

Conservation objectives

Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring;

- the extent and distribution of qualifying natural habitats and habitats of qualifying species;
- the structure and function (including typical species) of qualifying natural habitats;
- the structure and function of the habitats of qualifying species;
- the supporting processes on which qualifying natural habitats and the habitats of qualifying species rely;
- the populations of qualifying species; and
- the distribution of qualifying species within the site.

Dorset Heathlands SPA

Site area: 8184.96 ha

Overview of site and its location

The Dorset heathlands is an extensive lowland heathland area in southern England. Formerly a single tract divided only by river valleys it is now fragmented. The heathlands comprise a wide range of different habitat types related to variation in soils, hydrology, water chemistry and land use history.

Qualifying Features

A224(B) *Caprimulgus europaeus*: European nightjar

A246(B) *Lullula arborea*: Woodlark

A302(B) *Sylvia undata*: Dartford warbler

A082(NB) *Circus cyaneus*: Hen harrier

A098(NB) *Falco columbarius*: Merlin

Pressures and threats

Inappropriate scrub control

Invasion of heath by trees and scrub results, in the long term, loss of heathland vegetation which provide habitat for the qualifying bird species.

Public Access/Disturbance

Public access and disturbance affect large parts of the site mainly in the area of Poole/Bournemouth. Disturbance of breeding SPA birds, mostly by dogs, can affect their breeding success, with implications for population level effects e.g. nightjar and woodlark. Other effects include predation by domestic cats and urban foxes. On a number of sites the illicit use of heaths for motorcycle scrambling is resulting in disturbance and erosion, however motorcycle use on heathlands has generally declined relative to previous levels in response to site wardening and alternative facilities being made available.

Forestry and woodland management

Several of the heathlands have conifer plantations on former heathland (most planted after notification) or mature conifers (or sometimes birch) that have invaded the heathland habitat favoured by the SPA's designated bird species.

Habitat fragmentation

Dorset's lowland heathland is a fragmented remnant of a once extensive landscape. Some 86% of Dorset's heathland has been lost since the 1800s, and the surviving area is broken into many fragments. This curtails the genetic and physical interchange of a number of species and leads to edge effects on smaller sites. Moreover, species populations that are dependent on the wider habitat network of heath and forest beyond the designated site boundaries are vulnerable to changes within that wider network.

Wildfire/ arson

Fire predominantly affects the urban heaths (about a third of the heathland area in and around Poole and Bournemouth) which are subject to arson. The increased frequency of fires and the timing of these (in spring and summer) may adversely affect the SPA's designated heathland birds.

Conservation objectives

Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the aims of the Wild Birds Directive, by maintaining or restoring;

- the extent and distribution of the habitats of the qualifying features;
- the structure and function of the habitats of the qualifying features;
- the supporting processes on which the habitats of the qualifying features rely;
- the population of each of the qualifying features; and
- the distribution of the qualifying features within the site.

Dorset Heathlands Ramsar site

Site area: 6730.15 ha

Overview of site and its location

Extensive and fragmented, these heathland areas are centred around the estuary of Poole Harbour and are adjacent to the urban conurbation of Bournemouth and Poole. The heathland contains numerous examples of wet heath and acid valley mire, habitats that are restricted to the Atlantic fringe of Europe. These heath wetlands are among the best of their type in lowland Britain. There are also transitions to coastal wetland and fen habitat types. The wetland flora and fauna includes a large assemblage of nationally rare and scarce species, especially invertebrates.

Qualifying Features

Criterion 1: Contains particularly good examples of (i) northern Atlantic wet heaths with cross-leaved heath *Erica tetralix* and (ii) acid mire with *Rhynchosporion*.

Contains largest example in Britain of southern Atlantic wet heaths with Dorset heath *Erica ciliaris* and cross-leaved heath *Erica tetralix*.

Criterion 2: Supports 1 nationally rare and 13 nationally scarce wetland plant species, and at least 28 nationally rare wetland invertebrate species.

Criterion 3: Has a high species richness and high ecological diversity of wetland habitat types and transitions, and lies in one of the most biologically-rich wetland areas of lowland Britain, being continuous with three other Ramsar sites: Poole Harbour, Avon Valley and The New Forest.

Pressures and threats

Acid rain

Modelling by the relevant air quality authority indicates that the average or minimum deposition from airborne SOx and NOx exceed the maximum critical load for acidity on at least part of the site.

Pollution – unspecified

No information available.

Conservation objectives

None available

The New Forest SAC

Site area: 29213.57 ha

Overview of site and its location

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.

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.

The New Forest is one of the most important sites for wildlife in the UK and recognised as being of exceptional importance for nature conservation throughout the European Union. Over 90% of the SAC comprises the unenclosed land of the Crown Lands and adjacent commons, while the remainder is managed by private owners and occupiers. Of fundamental importance to sustaining the exceptional quality on the open forest is the persistence of commoning- the commoners stock roam freely, maintaining the structural diversity and richness of the habitats complemented by annual heathland cutting and burning programmes.

There are many pressures and threats to the condition of the New Forest SAC the main ones being:

- A significant long term reduction in grazing pressure through loss of commoning. This would lead to a dramatic change in the flora and fauna of the New Forest and the impoverishment of the special features for which is was designated.
- Impacts of recreation including disturbance to qualifying species and compaction, abrasion and other modifications to vegetation, soils and watercourses.
- Historic drainage of wetlands which leads to a loss of extent of wetland habitats such as wet heath, mire, riverine and bog woodland.
- Silviculture plantations with recognisable remnants of SAC Annex 1 habitats such as heathland, mire, lawn, riverine and bog woodland.
- Loss of traditional management practices which can lead to a loss of extent and diversity of open habitats.

The main stakeholders within the New Forest are committed to its protection and as a result there are some key mechanisms already in place:

- Recreational Management Strategy - The Strategy seeks to guide and influence recreation and spatial planning policy and implementation across the whole of the National Park and adjoining areas. The implementation of the Strategy will be overseen by the RMS Steering Group of key statutory bodies this currently consists of the Forestry Commission, the National Park Authority, the Verderers and Natural England.
- Higher Level Environmental Stewardship - currently supports major projects such as restoring wetlands and grasslands, tackling conifer regeneration and restoring plantations, supporting commoning and undertaking surveys of SPA bird populations and other species.
- The Forest Design Plan for the New Forest Inclosures was produced by the Forestry Commission in 2007 and sets out the management proposals for a period of twenty years for the Crown Land inclosure woodlands.

- Commoners Dwelling Scheme - provides a way for commoners to enter into a legal agreement which allows them to apply for planning permission so they can build a home outside the New Forest villages and continue their tradition of commoning in the forest.
- Local Development Plans - both the New Forest National Park and District Council have policies and/or supplementary planning guidance which secures financial contributions (and direct delivery of SANG in the case of larger developments in NFDC) to fund the delivery of new SANG provision, access management initiatives and other management measures in order to ensure the impacts of new residential developments are avoided or mitigated.

Qualifying Features

H7140 Transition mires and quaking bogs

H7150 Depressions on peat substrates of the *Rhynchosporion*

H3110 Oligotrophic waters containing very few minerals of sandy plains (*Littorelletalia uniflorae*)

H3130 Oligotrophic to mesotrophic standing waters with vegetation of the *Littorelletea uniflorae* and/or of the *Isoëto-Nanojuncetea*

H4010 Northern Atlantic wet heaths with *Erica tetralix*

H4030 European dry heaths

H6410 Molinia meadows on calcareous, peaty or clayey-silt-laden soils (*Molinion caeruleae*)

H7230 Alkaline fens

H9120 Atlantic acidophilous beech forests with *Ilex* and sometimes also *Taxus* in the shrub layer (*Quercion roboripetraeae* or *Ilici-Fagenion*)

H9130 *Asperulo-Fagetum* beech forests

H9190 Old acidophilous oak woods with *Quercus robur* on sandy plains

Pressures and threats

Drainage

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.

Inappropriate Scrub Control

Lack of management and grazing, and inappropriate drainage has led to the loss of open habitats through encroachment of scrub and secondary woodland.

Fish Stocking

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.

Deer

High levels of browsing prevent regeneration and cause a decline in the shrub and field layer of woodlands. The Forestry Commission and other land owners are actively managing the deer population and cooperating in existing strategies but levels are still perceived to be high.

Air Pollution: impact of atmospheric nitrogen deposition

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.

Public Access/Disturbance

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 the10 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 regeneration, levels of dead wood, lichens and ground flora.

Change in land management

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.

Water Pollution

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.

Forestry and woodland management

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.

Inappropriate ditch management

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.

Invasive species

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.

Parking

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.

Inappropriate cutting/mowing

Loss of traditional hay cutting, grazing and scrub management in privately owned meadows and heathlands leading to a loss or conversion of habitat.

Direct impact from 3rd party

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 boundaries, and storage of material and equipment.

Conservation objectives

Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring;

- the extent and distribution of qualifying natural habitats and habitats of qualifying species;
- the structure and function (including typical species) of qualifying natural habitats;
- the structure and function of the habitats of qualifying species;
- the supporting processes on which qualifying natural habitats and the habitats of qualifying species rely;
- the populations of qualifying species; and
- the distribution of qualifying species within the site.

New Forest SPA

Site area: 27968.96 ha

Overview of site and its location

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.

Further description of the site is provided under New Forest SAC above

There are many pressures and threats to the condition of the New Forest SPA the main ones being:

- Impacts of recreation including disturbance to qualifying SPA species.
- The pressures and threats described for the New Forest SAC (above), resulting in changes to the flora and fauna of the New Forest and the SPA birds that use these for habitat

This plan does not cover issues where mechanisms are already in place or ongoing management activities which are required for maintenance. Existing mechanisms for protection of the New Forest and its designated features are described under New Forest SAC above.

Qualifying Features

A072(B) *Pernis apivorus*: European honey-buzzard

A082(NB) *Circus cyaneus*: Hen harrier

A099(B) *Falco subbuteo*: Eurasian hobby

A224(B) *Caprimulgus europaeus*: European nightjar

A246(B) *Lullula arborea*: Woodlark

A302(B) *Sylvia undata*: Dartford warbler

A314(B) *Phylloscopus sibilatrix*: Wood warbler

Pressures and threats

Inappropriate scrub control

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.

Air Pollution: impact of atmospheric nitrogen deposition#

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.

Public Access/Disturbance

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.

Change in land management

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.

Inappropriate cutting/mowing

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 effects on the SPA birds that rely on open habitats.

Conservation objectives

Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the aims of the Wild Birds Directive, by maintaining or restoring;

- the extent and distribution of the habitats of the qualifying features;
- the structure and function of the habitats of the qualifying features;
- the supporting processes on which the habitats of the qualifying features rely;
- the population of each of the qualifying features; and
- the distribution of the qualifying features within the site.

The New Forest Ramsar site

Site area: 28002.81 ha

Overview of site and its location

The New Forest is an area of semi-natural vegetation including valley mires, fens and wet heath within catchments whose uncultivated and undeveloped state buffer the mires against adverse ecological change. The habitats present are of high ecological quality and diversity with undisturbed transition zones.

The suite of mires is regarded as the locus classicus of this type of mire in Britain. Other wetland habitats include numerous ponds of varying size and water chemistry including several ephemeral ponds and a network of small streams mainly acidic in character which have no lowland equivalent in the UK. The plant communities in the numerous valleys and seepage step mires show considerable variation, being affected especially by the nutrient content of groundwater. In the most nutrient-poor zones, Sphagnum bog-mosses, cross-leaved heath, bog asphodel, common cottongrass and similar species predominate. In more enriched conditions the communities are more fen-like

Qualifying Features

Criterion 1: 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.

Criterion 2: 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.

Criterion 3: 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 scare wetland species. The whole site complex, with its examples of semi-natural habitats is essential to the genetic and ecological diversity of southern England.

Pressures and threats

Commercial-scale forest exploitation

No information available.

Drainage/land-claim (unspecified)

No information available.

Introduction/invasion of non-native plant species

No information available.

Recreational/tourism disturbance (unspecified)

No information available.

Conservation objectives

None available.

River Itchen SAC

Site area: 303.98 ha

Overview of site and its location

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 river discharges via Southampton Water into the Solent which has a range of habitat designations. The Itchen faces numerous pressures from water abstraction and flow diversions, discharges, agricultural runoff, channel modifications, fisheries management and human impacts associated with the urbanisation alongside much of the river's valley.

Qualifying Features

H3260 Water courses of plain to montane levels with the *Ranunculion fluitantis* and *Callitricho-Batrachion* vegetation

S1044 *Coenagrion mercurial:* Southern damselfly

S1163 *Cottus gobio:* Bullhead

S1092 *Austropotamobius pallipes:* White-clawed (or Atlantic stream) crayfish

S1096 *Lampetra planeri*: Brook lamprey

S1106 *Salmo salar:* Atlantic salmon

S1355 *Lutra lutra:* Otter

Pressures and threats

Water pollution

Numerous issues with diffuse water pollution, in addition to point sources from Waste Water Treatment Works. Pollution causes excessive algal growth, smothering macrophytes, and increased BOD, decreasing oxygen availability for spawning gravels used by salmon and trout.

Physical modification

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, overdeepening, over-widening and straightening of channels, and bank re-sectioning and reinforcement.

Siltation

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 the Annex I river habitat, with consequences for macrophytes, southern damselfly habitat (where in ditches) and spawning gravels for fish.

Overgrazing

Impacts of over-grazing on river banks and wet meadow systems, removing riparian and meadow habitat and causing runoff into watercourses.

Water abstraction

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.

Inappropriate weed control

Management of aquatic weed for fishery activities affects protected habitats e.g. *Ranunculus*. This is 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.

Hydrological changes

Some locations on the floodplains are too dry, with reasons not clear - impacts on ditches (decreased flowing water) for southern damselfly and meadow flora.

Inappropriate water levels

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.

Change in land management

Risk of non-compliance with HLS agreements may be affecting water quality of the river and floodplain carriers.

Inappropriate cutting/mowing

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.

Invasive species

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 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.

Undergrazing

Undergrazing impacts on wet meadow systems, causing degradation of southern damselfly habitat in particular. Bridges are required to access and manage sites and prevent SAC condition to deteriorate. This requires special project funding, which is currently prohibited in HLS agreements.

Inappropriate ditch management

Some ditches are not managed, leading to reed encroachment, reducing flow and therefore prohibiting southern damselfly breeding habitat.

Inappropriate scrub control

Inappropriate scrub control impacts particularly around ditches for southern damselfly, where scrub shades some ditches, preventing growth of marginal plants for egglaying, and reduce flow in ditches.

Forestry and woodland management

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 may benefit from tree planting to reduce water temperatures, particularly in light of climate change, but must again be carefully assessed.

Conservation objectives

Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring:

- the extent and distribution of qualifying natural habitats and habitats of qualifying species

- the structure and function (including typical species) of qualifying natural habitats
- the structure and function of the habitats of qualifying species
- the supporting processes on which qualifying natural habitats and the habitats of qualifying species rely
- the populations of qualifying species, and,
- the distribution of qualifying species within the site.

Solent and Dorset Coast pSPA

Site area: 89,078.02 ha

Overview of site and its location

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.

There are already four Special Protection Areas (SPAs) within the Greater Solent that are designated for breeding terns. 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 potential new SPA covers the principal sea area that the breeding terns use for foraging during April-September. Whilst management measures are already in place in this foraging area due to the existing SPA, the classification of this new site will provide clarity to stakeholders about the areas the terns forage within and the species that require consideration.

Qualifying Features

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:

A193(B) *Sterna hirundo*: Common tern

A191(B) *Sterna sandvicensis*: Sandwich tern

A195(B) *Sterna albifrons*: Little tern

Pressures and threats

Not yet identified for this pSPA.

Conservation objectives

Not yet defined for this pSPA.

Solent and Isle of Wight Lagoons SAC

Site area: 37.93 ha

Overview of site and its location

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 including large populations of three notable species:

the nationally rare foxtail stonewort *Lamprothamnium papulosum*, the nationally scarce lagoon sand shrimp *Gammarus insensibilis*, and the nationally scarce starlet sea anemone *Nematostella vectensis*.

Qualifying Features

H1150 Coastal lagoons

Pressures and threats

Hydrological changes

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 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

Inappropriate weed control

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.

Coastal squeeze

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 Managemen 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 Regional Habitat Creation Project and the New Forest District Council/Channel Coastal Observatory's Solent Dynamic Coast Project.

Invasive species

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.

Air pollution

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.

Conservation objectives

Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring;

- the extent and distribution of qualifying natural habitats
- the structure and function (including typical species) of qualifying natural habitats; and
- the supporting processes on which qualifying natural habitats rely

Solent Maritime SAC

Site area: 11243.12 ha

Overview of site and its location

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.

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.

Qualifying Features

H1110 Sandbanks which are slightly covered by sea water all the time

H1320 Spartina swards (*Spartinion maritimae*)

H1330 Atlantic salt meadows (*Glauco-Puccinellietalia maritimae*)

S1016 *Vertigo moulinsiana*: 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 *Ammophila arenaria* ("white dunes")

H1150 Coastal lagoons

H1310 Salicornia and other annuals colonising mud and sand

Pressures and threats

Public Access/Disturbance

Recreational activities can affect annual vegetation of drift lines (H1210) and the vegetation of stony banks (H1220).

Coastal squeeze

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.

Water pollution

Water pollution affects a range of habitat 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.[78] 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.

Changes in species distributions

Areas of salt-marsh are eroding and decreasing.

Climate change

Climate change has resulted in rising sea level causing flooding to habitats.

Change to site conditions

There is an increasing loss of salt-marsh in much of the Solent for reasons unknown, and this needs to be investigated.

Invasive species

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.

Direct land take from development

Private sea defences are causing disruption to the natural processes of allowing erosion to move sediments around the SAC.

Air Pollution: impact of atmospheric nitrogen deposition

Nitrogen deposition exceeds site relevant critical loads. Locally observed effects are unknown.

Hydrological changes

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.

Direct impact from 3rd party

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.

Extraction: non-living resources

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.

Other

SAC boundary may not cover the extent of all Annex 1 and Annex 2 features and/or supporting habitats.

Conservation objectives

Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring;

- the extent and distribution of qualifying natural habitats and habitats of qualifying species
- the structure and function (including typical species) of qualifying natural habitats
- the structure and function of the habitats of qualifying species

[78] Addressing the needs of housing growth and protecting the marine environment in the Solent area, Environment Agency and Natural England, 2015.

- the supporting processes on which qualifying natural habitats and the habitats of qualifying species rely
- the populations of qualifying species; and
- the distribution of qualifying species within the site.

Solent and Southampton Water SPA

Site area: 5401.12 ha

Overview of site and its location

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 rich intertidal mudflats, saltmarsh, shingle beaches and adjacent coastal habitats, including grazing marsh, reedbeds and damp woodland, support nationally and internationally important numbers of migratory and over-wintering waders and waterfowl as well as important breeding gull and tern populations.

Qualifying Features

A046a(NB) *Branta bernicla bernicla*: Dark-bellied brent goose

A052(NB) *Anas crecca*: Eurasian teal

A156(NB) *Limosa limosa islandica*: Black-tailed godwit

Waterbird assemblage

A176(B) *Larus melanocephalus*: Mediterranean gull

A191(B) *Sterna sandvicensis*: Sandwich tern

A192(B) *Sterna dougallii*: Roseate tern

A193(B) *Sterna hirundo*: Common tern

A195(B) *Sterna albifrons*: Little tern

A137(NB) *Charadrius hiaticula*: Ringed plover

Pressures and threats

Public Access/Disturbance

Many human activities in the area can disturb birds. This includes activities such as walking; dog walking; bird watching; boating; kayaking; kite surfing; hang gliding; paramotors; jet skis; wildfowling; model helicopters/aircraft; boat mooring, and hovercraft usage.

Coastal squeeze

Habitats are being lost as they are squeezed between rising sea levels and hard coastal defences that are maintained. There is an impact on birds due to the loss of habitat for feeding, roosting and breeding. In some areas rising sea levels will result in coastal grasslands being lost to more saline grasslands, thus losing habitat for some breeding waders of the waterbird assemblage. 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.

Fisheries: Commercial marine and estuarine

Towed gear, hand gathering of shellfish, bait digging and aquaculture are the main fishery activities in this site. These have the potential to adversely affect the prey species on which the designated bird species rely in not appropriately managed.

Water pollution

Water pollution affects a range of habitat and bird species 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.[79] 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.

Changes in species distributions

Many waders and wildfowl are decreasing in the Solent probably as they move north and east under national trends. Some fish, such as sand eels, may be moving their breeding grounds resulting in less food availability for breeding terns. Invertebrate populations in the intertidal muds are changing and this may disadvantage some wintering wader species. Areas of salt-marsh are eroding and decreasing resulting in decreasing breeding gulls and terns as their habitat decreases and decreasing plant species of salt-marshes.

Climate change

Climate change has impacts upon coastal species, in that gull and tern colonies are more frequently washed out with rising sea levels when storm surges cause flooding to habitats.

Change to site conditions

There is an increasing loss of salt-marsh in much of the Solent for reasons unknown, and this needs to be investigated.

Invasive species

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.

Biological resource use

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.

Inappropriate pest control

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.

Direct impact from 3rd party

Military helicopters cause disturbance to wintering birds.

Other

SPA boundaries may not cover the extent of all Annex 1 and Annex 2 features and/or supporting habitats.

[79] Addressing the needs of housing growth and protecting the marine environment in the Solent area, Environment Agency and Natural England, 2015.

Conservation objectives

Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the aims of the Wild Birds Directive, by maintaining or restoring;

- the extent and distribution of the habitats of the qualifying features;
- the structure and function of the habitats of the qualifying features;
- the supporting processes on which the habitats of the qualifying features rely;
- the population of each of the qualifying features; and
- the distribution of the qualifying features within the site.

Solent and Southampton Water Ramsar site

Site area: 5346.44 ha

Overview of site and its location

The area covered extends from Hurst Spit to Gilkicker Point along the south coast of Hampshire and along the north coast of the Isle of Wight. 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.

Qualifying Features

Criterion 1: 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 habitats characteristic of the biogeographic region: saline lagoons, saltmarshes, estuaries, intertidal flats, shallow coastal waters, grazing marshes, reedbeds, coastal woodland and rocky boulder reefs.

Criterion 2: 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.

Criterion 5: Assemblages of international importance

- Species with peak counts in winter: 51343 waterfowl (5 year peak mean 1998/99-2002/2003)

Criterion 6: Species/populations occurring at levels of international importance.

Qualifying Species/populations (as identified at designation):

- Species with peak counts in spring/autumn: Ringed plover *Charadrius hiaticula*
- Species with peak counts in winter: Dark-bellied brent goose *Branta bernicla bernicla,* Eurasian teal *Anas crecca,* Black-tailed godwit *Limosa limosa islandica*

Pressures and threats

Erosion

No information available.

Conservation objectives

None available.

Appendix 2
Evidence on recreation pressure in the New Forest

New Forest Visitor Research[80]

Introduction

The Countryside Agency commissioned Tourism South East to undertake a programme of research in 2004-05 to identify the profile of visitors to the New Forest National Park; explore the characteristics of visits; identify the main reasons for visiting; identify access points used, routes taken and activities pursued; and produce estimates of visitor volumes and their economic impact. Although not aimed at identifying potential recreation pressure on biodiversity sites, the study is useful in characterising the scale and pattern of visitors to the New Forest National Park as a whole and is a key source of data for other studies reviewed below, including the PROGRESS Project[81] and the Footprint Ecology study on changing patterns of visitor numbers within the National Park[82]. NFNPA confirmed that there is no visitor survey work that only covers the New Forest European sites.

The two main methods of collecting primary data were:

- A site-based interview and observation survey at 62 locations within the National Park over a 12 month period, to provide a broad spread of users and recreation sites.
- A household telephone interview survey, targeting 2,164 households within the National Park boundary and adjacent areas.

The results of the household survey were broken down into three geographic categories:

- Households within the National Park.
- Households in an area bordering the National Park, within approximately 5 miles (8km) of the Park boundary.
- Households from more distant major urban catchments, including Southampton, Bournemouth and Salisbury.

The study results outlined below relate to the telephone survey of households within the National Park since these provide the best indication of the likely behaviour of occupiers of the residential development proposed by NFNPA's Local Plan.

Household survey results

98% of households in the National Park had a member who had visited it for recreation in the past 12 months, with 93% visiting at least once a month, and 78% visiting at least weekly.

Recreational visits are spread fairly uniformly across the year, with only a small bias towards the Spring and Summer seasons.

The main reasons for householders visiting the National Park were to walk (51%, of whom more than half walk for more than one hour), walk the dog (26%), or go horse-riding (5%).

The places most frequently cited by households located in the National Park as being one of their top three destinations in the New Forest were Lyndhurst (24%), Brockenhurst (19%), Beaulieu (13%) and Lymington (13%).

When planning their visit to the New Forest, households in the National Park rely heavily on local knowledge (57%) or feel no need to use an information source (21%), reducing the need for other sources such as maps (26%), guide books (11%), a visitor information centre (4%) or the internet (2%).

The most commonly cited usual modes of transport for households in the National Park to visit the New Forest for recreation are by car (64%) or walking (28%). The choice of transport mode is influenced mainly by convenience (51%) and ease of access (25%).

[80] Tourism South East (2005) Visitor Survey of the New Forest National Park 2004-2005
[81] Gallagher, Kate; Graham, Michael; Colas, Sarah (2007) PROGRESS Project Handbook
[82] Sharp, J; Lowen, J; Liley, D (2008) Changing patterns of visitor numbers within the New Forest National Park

Implications for mitigation of recreation pressure

The survey results show that there is a high probability that new householders in the National Park will regularly visit the National Park by car or on foot for recreation, to walk with or without a dog for a considerable amount of time, and that their choice of where to visit within the National Park will rely heavily on their own/local knowledge. This suggests that measures such as reducing vehicle access, reducing car parking spaces, regulating verge parking, and enforcing parking restrictions (for example during sensitive breeding seasons) may be more effective than visitor education when it comes to influencing choice of recreation destination within the National Park. The success of such access management in reducing disturbance at New Forest European sites could be limited, however, by the long distances walked by recreational visitors. Education and warden supervision may therefore still play an important role in regulating visitor behaviour so as to reduce potential adverse effects on designated biodiversity assets. The fact that choice of transport mode is heavily influenced by convenience and ease of access suggests that SANGS which are close to residential development or which are well served by public transport may also be successful in diverting recreation visits from New Forest European sites.

PROGRESS Project[83]

Promotion and Guidance for Recreation on Ecologically Sensitive Sites (PROGRESS) was a four year, EU-funded, project. It examined how the needs of conservation and recreation could be reconciled in the New Forest National Park and the Forest of Fontainebleau near Paris, both of which have seen a significant increase in visitor numbers in recent decades, with visible effects on their ecology.

The project's approach was to draw on expert knowledge and extensive surveys (including the visitor survey[84] reviewed above) and studies to create a clear picture of the problems to be tackled, to develop and implement a series of community and on-site actions and to develop partnerships with local tourism providers to promote key conservation messages. Although surveys and actions aimed at mitigating recreational disturbance in the New Forest were not limited to the SPA, project objectives included:

- *"To evolve partnerships that secure sustainable recreation in Natura 2000 sites."*
- *"To enhance visitor/user appreciation of, and greater personal responsibility for, the conservation of natural resources and the specific needs of the two Natura 2000 sites (including targeting users' lack of knowledge)."*

Information gathered by this project about outdoor recreation in the New Forest National Park formed a fundamental part of the evidence for the first Footprint Ecology study[85]; the elements of most relevance to this report are reviewed under that study.

Actions implemented in the New Forest National Park by the Forestry Commission as part of this project which are of particular relevance to mitigating recreational disturbance included:

- Trial closure of selected car parks during March-June to limit recreational access to ground nesting bird sites.
- Permanent closure of a number of lay-bys to limit access to sensitive sites.
- Improving three large fenced off areas of the New Forest ('inclosures') to increase their attractiveness for recreational use by, for example, thinning trees, installing picnic areas and improving accessibility to disabled users and horse riders, to relieve pressure on sensitive areas.
- Making plans to upgrade existing car parks at locations capable of coping with additional visitors.
- Placing information boards in and around car parks located close to sensitive ground nesting bird breeding grounds which encourage visitors to stay out of these areas.

[83] Gallagher, Kate; Graham, Michael; Colas, Sarah (2007) PROGRESS Project Handbook
[84] Tourism South East (2005) Visitor Survey of the New Forest National Park 2004-2005
[85] Sharp, J; Lowen, J; Liley, D (2008) Changing patterns of visitor numbers within the New Forest National Park

Implications for mitigation of recreation pressure

In commenting on work carried out through PROGRESS to manage the impact of recreation within the New Forest, the report states that it is too early to say whether measures such as seasonal car park closures have produced more favourable breeding habitat for birds or led to increased bird numbers, although the RSPB and Forestry Commission planned to monitor this. Similarly, the success of measures designed to relieve visitor pressure on the SPA by offering alternative recreational facilities beyond its boundaries, such as at Watchmoor Wood, was unknown at the time of the report.

Monitoring the effectiveness of access management in the New Forest[86]

The Forestry Commission has carried out bird surveys in areas of New Forest National Park surrounding eight car parks that have undergone seasonal closures each year from 2006 to 2011. As described under the review of the PROGRESS Project (above), these trial car park closures form part of a suite of access management measures undertaken to test their effectiveness in mitigating recreational disturbance on breeding birds in the New Forest. LUC obtained and briefly reviewed copies of the annual survey reports. These reveal that the following wader species were surveyed during the breeding season (March-June): Northern Lapwing, Common Snipe, Eurasian Curlew and Common Redshank. These species were chosen because "*The valley mires and the wetter heathlands have long been recognised as valuable habitats for waders breeding in the New Forest*".

Implications for mitigation of recreation pressure

Since the species chosen are not Annex I bird species for which the New Forest SPA is designated, this monitoring work is of limited use in assessing the likely effectiveness of seasonal car park closures as a tool for mitigating recreational disturbance on the New Forest SPA. In any event, the survey data do not reveal any definitive trends over the period of car park closures, with bird population numbers fluctuating from year to year. This means that the study cannot help to inform strategies for mitigating recreational disturbance in the New Forest European sites and no better evidence from the New Forest is thought to exist.

Changing patterns of visitor numbers within the New Forest National Park[87]

Introduction

This study has two main strands. Firstly, it explores whether current visitor levels to the New Forest are having a detrimental effect on three Annex 1 heathland bird species (nightjar, woodlark and Dartford warbler). These species are used as indicators of the wider health of the National Park's designated interest since research in other areas of southern England has shown that they are sensitive to human disturbance. This strand is explored by reference to Forestry Commission visitor count data from 2004 and 2005 and national bird surveys from 2004 and 2006.

Secondly, the study models the change in visitor patterns to the Park that can be expected as a result of housing development. This is done by reference to visitor data (largely from the PROGRESS research), the current distribution of housing in distance bands around the New Forest boundary and levels of housing growth provided for each district in the South East and South West Regional Spatial Strategies (RSS)[88]. The report ends by making recommendations on monitoring, refinement of visitor models and visitor management options.

[86] Wiseman, E (2011) - PROGRESS Project

[87] Sharp, J; Lowen, J; Liley, D (2008) Changing patterns of visitor numbers within the New Forest National Park

[88] Both revoked in 2013 except for Policy NRM6 of the South East RSS: Thames Basin Heaths Special Protection Area

Existing visitor patterns

This study drew its visitor pattern information largely from the New Forest Visitor Survey[89] conducted as part of the PROGRESS Project. That visitor survey and the most relevant data from it are reviewed separately above and have not been reproduced here.

Evidence for existing disturbance impacts to Annex 1 birds

The modelling failed to find a statistically significant impact from visitor pressure on any of the three indicator bird species studied. The study notes that given this finding and the fact that densities of the indicator Annex I bird species are markedly lower in the New Forest than in similar habitats such as the Dorset Heaths and Thames Basin Heaths, further work is needed to understand these comparatively low densities. There is some evidence that two of the species (nightjar and Dartford warbler) avoid areas of suitable habitat where predicted visitor numbers are very high but this avoidance is not enough to account for the low overall densities. The overarching conclusion is that in the absence of further work it is difficult to determine the extent to which disturbance may have consequences for Annex I bird populations.

Current distribution of housing, likely change and consequences of housing growth for visitor patterns

Based on residential address data, population densities in the New Forest are estimated to be high to the east of the National Park (1,000-2,000 people per km^2), fairly high to the west and south west of the Park (500-1,000 people per km^2) and low to the north of the Park and within it (0-100 people per km^2).

The study estimates that development during 2006-2026 within 50 km of the New Forest National Park (but outside its boundary) will result in an additional 1.05 million visitor days per annum, an increase of 7.9%. It estimates that the bulk of these new visitors (85%) associated with housing development in the South East and South West regions will live within 20 km, and particularly 7 km, of the Park and based on existing visitor patterns, they are likely to visit more frequently than visitors from further afield, visit throughout the year, and be more likely to be dog-walkers and rely on local knowledge to plan their visits.

In reflecting on the accuracy of its predictions, the study notes that although it assumes that the number of residents per dwelling will remain constant into the future, current trends actually show a general decline in household size across the South East. This could result in the study over-estimating visitor growth but this could be offset by increases in the average age of the regional population, since older age groups are more likely to be day-visitors to the Park.

Even in the absence of evidence of significant existing recreation pressure on Annex I birds, the predicted scale of increase in visitor numbers (particularly local day-visitors who are more likely to be dog walkers and to stray of the beaten track) combined with uncertainty over the reasons for current low densities of birds leads the study to conclude that "*it would seem necessary that a package of mitigation measures is implemented to ensure no adverse effects*".

Implications for mitigation of recreation pressure

The study emphasises the need to tailor a package of mitigation measures to the unique nature of the New Forest and its visitor patterns (see above) but also points out that the large area of land, existing expertise in access management, and an infrastructure already geared to cope with large numbers of visitors provide a good starting point. Suggested mitigation measures comprise:

- A monitoring strategy – detailed field work to understand low densities of the three indicator species; regular monitoring of other key species and locations where there are concerns about recreational pressure; annual monitoring of visitor levels; monitoring of changes in visitor patterns associated with access management measures.
- Refinement of visitor models – accounting for the spatial distribution of paths and points of interest within the New Forest; incorporating actual route data; exploring the spatial distribution of other species to predicted visitor pressure.

[89] Tourism South East (2005) Visitor Survey of the New Forest National Park 2004-2005

- Car-parking – managing car parking to re-distribute visitors.
- Access management measures - promotion of less sensitive areas to visitors; provision of interpretation and path enhancement in less sensitive areas; promotion of issues such as the need to keep dogs on leads.
- Alternative green space – the report states that any alternative green space must be very carefully considered in terms of its ability to attract people who would otherwise visit the New Forest. It notes the lack of long term visitor monitoring at green spaces provided as a means of reducing visitor pressure on sites of nature conservation importance elsewhere and cites a Portsmouth recreation survey which suggested that neither country parks nor tourist attractions are regarded as alternatives to visiting the New Forest. It concludes that the visitors who are likely to be the easiest to divert from the New Forest are those who do not stay overnight and that potential alternative green spaces need to be located closer to development areas than the sensitive site to be protected and might be found within parts of the New Forest that currently have no public access. These would need to be located in area of low sensitivity to disturbance. Sites to attract dog walkers should provide safe off-road parking, a range of routes, and be in locations perceived to maximise enjoyment of the dog.

Urban development and the New Forest SPA[90]

Introduction

This report considers the evidence of impacts from urban development on the designated European interest features in the New Forest SPA, whether measures are necessary to avoid likely significant effects and, if so, the measures that might be required. It draws on existing bird survey data for the three indicator species studied in the earlier Footprint Ecology report[91] as well as new interviews with New Forest management and conservation experts.

Views of interviewees

The expert interviews revealed the following views:

- New housing has led to increased numbers of people accessing the New Forest SPA, thereby increasing the potential for habitat damage and species disturbance.
- Access levels have increased over time, particularly cycling, horse riding, dog walking and organised events.
- Many recreational visits originate from close to the SPA (i.e. from within or just outside the National Park), with a particular increase over the past 30 years in people travelling by car for daily dog walks.
- Impacts of recreation are not focused around the New Forest's settlements because of the significant proportion of non-local visitors and because even locals tend to travel a short distance by car rather than walking from their front door; it was therefore thought unlikely that the distribution of birds would show any correlation with housing locations.
- Managing access by local visitors is harder than access by tourists as they are less likely to respond to signs or seek guidance on where to go and what to do.
- Habitat management has changed over time, habitat quality is patchy and bird data are incomplete and sometimes inconsistent, making it harder to isolate the effects of development on bird populations.

Results of bird surveys and relationship to housing locations

Survey data for three Annex I bird species (Dartford warbler, nightjar and woodlark) were examined in relation to information about the distribution of their habitats, differences in management of those

[90] Fearnley, H; Hoskin, R; Liley, D (2012) Urban Development and the New Forest SPA
[91] Sharp, J; Lowen, J; Liley, D (2008) Changing patterns of visitor numbers within the New Forest National Park

habitats and proximity of habitat areas to existing built development. The findings, which need to be interpreted with caution because of the patchy coverage of bird survey data, indicate that:

- The majority of the suitable (dry heathland) habitat for the Annex I bird species lies within 1 km of existing housing.
- No clear relationship existed between bird population density and habitat management for woodlark or nightjar; areas where winter burning is used as a heathland management tool support lower densities of Dartford warbler for seven years following burning.
- There is no evidence that the current distribution of birds is related to the current distribution of housing.

Summary and interpretation of results

The comparatively low densities of Annex I bird species within the New Forest SPA were flagged up by the earlier Footprint Ecology study[92]. This study sought to explain these by examining the potential effects of habitat management (particularly annual burning) and of recreational disturbance but was unable to provide such an explanation. The study concluded that existing data sets on birds and on habitat management are not adequate to determine why densities are low.

The report points out that most of the SPA's dry heath habitat is in relatively close proximity to housing, bringing nesting habitat and recreation together in the same locations. In the absence of any other explanation for the SPA's low densities of Annex I bird species, the study concludes that it is reasonable to suppose that the low densities may, at least in part, be due to recreation pressure. Although other factors, such as variations in habitat quality and habitat management, are likely to be contributing to low bird densities application of the precautionary principle is advised in line with the requirements of the Habitats Regulations until the evidence base is refined.

Implications for mitigation of recreation pressure

The argument above leads the report authors to conclude that the NPA should seek measures to mitigate the potentially significant recreational effects of development. Since recreational disturbance has multiple sources (visitors from within the National Park, day visitors from beyond the Park and overnight tourists from further afield) the NPA is advised to work with partners to seek proportionate contributions to mitigation measures from each source.

In discussing potential mitigation measures, the report finds little merit in establishing a development exclusion buffer zone around the New Forest's existing settlements such as the 400 m zone used for other heathland SPAs in southern England. This reflects, in part, the particular travel patterns of the New Forest's recreational users, as previously discussed. Instead, the report recommends that resources are pooled into a strategic mitigation scheme focused on people management and designed to complement the National Park's existing Recreation Management Strategy. Recommended elements of mitigation include:

- A survey of all parking locations within the National Park to inform management options.
- Heightened ranger presence at key locations during March-August to ensure responsible access.
- Promotion of routes for local residents away from sensitive areas, particularly during the bird breeding season.
- Management of pathways to influence visitor use.
- Community work to communicate issues to local residents.
- Reduction of disturbance around honey buzzard nest sites, for example by providing dedicated bird watching points.
- Further research to identify the factors determining distribution and abundance of Annex I bird species in the New Forest.

[92] Sharp, J; Lowen, J; Liley, D (2008) Changing patterns of visitor numbers within the New Forest National Park

Biodiversity in the New Forest[93]

Introduction

This book has a large number of contributors and provides an overview of biodiversity in the New Forest, focusing on the current status and trends in species of conservation concern, and the habitats with which they are associated. A brief overview is also provided of current management approaches and future challenges. LUC has reviewed Chapter 20 which integrates this information to identify cross-cutting issues with the aim of informing future management decisions.

Evidence of recreational disturbance

Natural England's Common Standards Monitoring (CSM) approach has formed the basis of habitat monitoring in the New Forest since about the year 2000. Results indicate that 463 units out of 576 are in unfavourable condition (including 366 unfavourable recovering, 75 declining, 20 no change, and 1 partially and 1 totally destroyed); this represents 80% of units, or 68% of the total area. For those units for which data are available, the reasons for the condition being unfavourable provide an insight into the main threats currently affecting New Forest habitats. Results indicate that the threats differ between habitat types. In dry heathland and grassland habitats, the principal threat is overgrazing, although inappropriate scrub control is also a significant factor. In wet heathland, wet grassland and mire habitats, the principal threat is drainage. In woodland habitats, inappropriate forestry or woodland management practices are the principal threat, although drainage is also a significant factor accounting for unfavourable condition. In none of the habitats is public access or disturbance cited as a significant factor. For dry heathland and dry grassland habitat classified as in unfavourable condition, for instance, public access/disturbance was only cited as a reason for this condition in 0.72% of the area, with other reasons such as overgrazing (39.7%) and inappropriate scrub control (34.2%) far more commonly cited. These observations need to be treated with some caution since factors other than disturbance may temporarily cause designated bird species to avoid otherwise suitable areas of habitat; as these factors are addressed and habitat condition improves, recreational disturbance may become apparent. A good monitoring protocol is needed to identify such situations.

Species monitoring is more patchy than habitat monitoring, with a number of authors in the book highlighting a lack of systematic survey and monitoring data, making it difficult to ascertain trends in abundance of individual species or species groups with any precision. Available evidence does suggest, however, that at least 170 species have been lost from the New Forest in recent decades. Again, a range of different causes of the decline or loss of species is identified. The widespread damage to ancient woodland habitats caused by forestry operations in the 20th century appears to have had a significant negative impact on groups such as vascular plants, fungi and some invertebrates. Another key issue has been the increase in grazing and browsing pressure in recent decades, particularly in the Inclosures, which accounts for the losses of many invertebrates, especially the Lepidoptera. In common with the assessment of habitat condition (see above), inappropriate habitat management interventions are widely cited, including scrub control, tree felling and heathland burning. The study also notes that the loss or decline of some species may be the result of processes occurring in the wider countryside, including agricultural intensification and land use change in areas adjacent to the New Forest. Causes for declines in bird species such as Dartford warbler, snipe, curlew and redshank are described as 'often unclear' and disturbance from human recreation is mentioned only as one of a range of factors which also includes inappropriate habitat management, climate change and nest predation.

Although there is overlap between the designated features of the New Forest's SSSIs and its European sites, it must be remembered that Natural England's condition assessments relate to SSSIs and caution should therefore be exercised in applying the conclusions above to the state of the habitats and populations of the European designations and the impact of recreational disturbance on these.

The book points out that that effective conservation management depends on adequate monitoring, so that management interventions can be amended and adapted in response to available evidence. Despite this, the current distribution of most species in the New Forest is inadequately known, and even less information is available regarding trends in abundance of individual species, even for those of international conservation concern for which the area was designated.

[93] Newton, Adrian C (2010) 'Chapter 20. Synthesis: status and trends of biodiversity in the New Forest' in Newton, Adrian C (editor) Biodiversity in the New Forest

The conclusion in respect of recreation pressure is that "*Although there are clearly areas of concern in terms of recreation impacts on biodiversity, such as possible disturbance to ground-nesting birds, there is also a great deal of uncertainty regarding what the precise impacts actually are. Such uncertainty can only be addressed by an increased emphasis on research and monitoring in future.*"

Implications for mitigation of recreation pressure

The book does not seek to provide a detailed evaluation of management approaches to conservation management of the New Forest but some cross-cutting issues are briefly considered. The section on recreation notes that much of the evidence of recreational disturbance to wildlife is circumstantial, reports the findings of the PROGRESS project (reviewed separately in this report), and lends support to the New Forest NPA's Recreation Management Strategy. It concludes that "*it is surely appropriate that recreation management should continue to form a central element of any management plan for the New Forest"* whilst noting that restrictions on visitor movements or activities will inevitably be controversial, underlining the need for robust evidence to be gathered to support them. Whilst this conclusion of the study is valid in general terms, in the context of the Habitats Regulations, implementation of such restrictions may be justified even in the absence of robust evidence, on a precautionary basis.

Appendix 3
Review of other relevant plans and projects

District level Local Plans (strategic issues / 'core strategies') providing for development

Bournemouth Local Plan: Core Strategy	
Plan Owner/ Competent Authority:	Bournemouth Borough Council
Related HRA/AA:	Pre-Submission Consultation Document Habitats Regulations Assessment Report (July 2011)[94] Sustainability Appraisal and Habitats and Regulations Assessment: Supplementary Statement based on Proposed Main Modifications (May 2012)[95]
Notes on Plan documents:	Core Strategy (adopted October 2012)

Conclusions on potential effects of relevance to European sites within scope of HRA of New Forest Local Plans

Overall the HRA concluded that there would be no adverse effects on the integrity of any European sites resulting from the Bournemouth Plan either alone or in combination with other plans or projects.

The supporting statement on the proposed modifications also concluded that there would be no likely significant effects on European sites resulting from proposed modifications.

The HRA identifies the following potential risks to European sites:

Physical loss of habitat: Potential adverse effects on the Dorset Heathlands SPA/ Ramsar Site were identified from physical loss of habitat on development sites whose locations are unknown. HRA concludes these effects are ruled out by *CS31*: Heathland.

Pressure on recreation space: Potential adverse effects on Dorset Heathlands SPA/Ramsar complex were identified due to potential for increased pressure on amenity space. These effects were ruled on due to a separate study forecasting lower visitor pressure in inland areas (where heathlands are located), implementation of policies within *CS31, CS29 CS33*, as well as mitigation measures within the Heathland Planning Framework. Potential adverse effects on the River Avon SAC/Avon Valley SPA and Ramsar site were also identified from in combination effects with neighbouring authority plans. However, these effects were ruled out due mitigation measures in other Core Strategies.

Air Pollution: Potential adverse effects on the Dorset Heaths SAC and Dorset Heathlands SPA/Ramsar were identified due to a positive trend of NOx emissions in some parts of the heaths. However these effects where ruled out by the HRA as implementation of mitigation measures outlined in the LTP3 should ensure adverse effects on the integrity of the Dorset Heathlands SPA/Ramsar and SAC are avoided.

Noise pollution: Potential adverse effects were identified for the Dorset Heathlands SPA/Ramsar site from noise caused by new development on development sites whose location are currently unknown, as well as noise generated from vehicle traffic. These effects are ruled out due to policy *CS12, CS14, CS35* and mitigation measures set out in LTP3.

Light pollution: Potential adverse effects on the Dorset Heathlands SPA/Ramsar Site were identified due to potential light pollution from development on sites whose locations are currently unknown. These effects are ruled out due to policy *CS31* which requires mitigation measures where adverse impacts are unavoidable.

In combination effects: HRA concludes that there are unlikely to be adverse effects on European Sites as long as mitigation measures set out in the Bournemouth Core Strategy, Christchurch and East Dorset Core Strategy (2010) and the Bournemouth, Dorset and Poole LTP3 are implemented.

[94] Land Use Consultants (2011). Bournemouth Core Strategy Pre-Submission Consultation Document: Habitats Regulations Assessment Report.

[95] Bournemouth Borough Council (2012). Sustainability Appraisal and Habitats Regulations Assessment: Supplementary Statement on Proposed Main Modifications. [online] Available at: https://www.bournemouth.gov.uk/planningbuilding/PlanningPolicy/PlanningPolicyFiles/H24-Supplementary-Statement-SA-and-HRA.pdf [Accessed 11 Aug. 2017].

Christchurch and East Dorset Joint Core Strategy	
Plan Owner/ Competent Authority:	Christchurch Borough Council and East Dorset District Council
Related HRA/AA:	Christchurch and East Dorset Joint Core Strategy Habitats Regulations Assessment
Notes on Plan documents:	Plan adopted April 2014. Development provided for include 8,490 new homes and 80 ha of employment land between 2013 and 2028.

Conclusions on potential effects of relevance to European sites within scope of HRA of New Forest Local Plans

The HRA Appropriate Assessment ruled out any adverse effects on European sites. The following types of potential likely significant effect were identified:

Habitat loss: *Policy KS9* and *KS10*: There was an element of uncertainty at the screening stage, in regards to these policies and whether proposed development and inclusion of cycle and walking routes would result in habitat loss at Dorset Heath SAC, Dorset Heathlands SPA/Ramsar, River Avon SAC, and Avon Valley SPA/Ramsar. It is recommended that habitat loss does not occur from proposals and if that is unavoidable then appropriate compensation should be implemented.

Physical disturbance/damage: *Policy CN3*: proposes development directly adjacent to the Avon SPA/Ramsar and within close proximity to the Avon Valley SPA/Ramsar, Dorset Heaths SAC and Dorset Heathlands SPA/Ramsar are likely to result on significant effects, as a result of recreational pressure. Equally, *Policy KS10:* proposes improvements to the A35, which could have an adverse impact on the River Avon SAC and Avon Valley SPA/Ramsar, due to physical disturbance and damage. Policies relating to gypsy and traveller sites and rural exception sites also haves the potential to cause significant adverse impacts as a result of development within 500m of the Dorset Heaths SAC, Dorset Heathlands SPA/Ramsar site, River Avon SAC and/or Avon Valley SPA/Ramsar site. It has been concluded that there will be no significant impacts to the European sites, as long as mitigation proposed in *Policies ME1 and ME2*.

Recreational disturbance: *Policy CN3:* the close proximity of proposed development to Dorset Heaths SAC, Dorset Heathlands SPA/Ramsar site, the River Avon SAC, Avon Valley SPA/Ramsar site and the New Forest SAC/SPA/Ramsar were considered to have adverse effects, in regards to increased visitor pressure. The provision of mitigation from *Policies ME1, ME2 and ME3* was considered adequate in preventing adverse effects on the European sites.

Noise, vibration and light pollution: New Forest SAC/SPA/Ramsar site, Dorset Heathlands SPA and Avon Valley SPA/Ramsar site are all vulnerable to significant adverse effects. However, the provision of mitigation from *Policies ME1 and ME2* can rule out any significant effects on European sites.

Air pollutions: Dorset Heaths SAC, Dorset Heathlands SPA/Ramsar site, the River Avon SAC, Avon Valley SPA/Ramsar site and the New Forest SAC/SPA/Ramsar site were considered to be affected by likely significant effects. It was concluded that it was unlikely for there to be significant adverse effects, as long as appropriate mitigation was implemented.

In combination plans: It is concluded that there will be no adverse effects on European sites, including Dorset Heaths SAC and Dorset Heathlands SPA/Ramsar site if recommendations made within the HRA are implemented.

Isle of Wight Island Plan Core Strategy	
Plan Owner/ Competent Authority:	Isle of Wight Council
Related HRA/AA:	Habitats Regulation Assessment for the Isle of Wight Core Strategy Appropriate Assessment Report April 2011[96]
Notes on Plan documents:	Plan adopted March 2012. Development provided for include 8320 dwellings and 42 ha of new economic development land between 2011 and 2027.

Conclusions on potential effects of relevance to European sites within scope of HRA of New Forest Local Plans

The HRA concluded that there would be no likely significant effects as a result of strategic-level Core Strategy policies.

Further assessment will be required when identifying site allocations for Area Action Plan DPDs. For example *AAP1:*

[96] https://www.iwight.com/azservices/documents/2782-FA4-HRA-of-the-IW-Core-Strategy-Appropriate-Assessment-Report.pdf

Isle of Wight Island Plan Core Strategy

Medina Valley and AAP2: Ryde both have the potential to cause likely significant effects to the Solent and Southampton Waters SPA, as a result of recreational disturbance from increased visitor pressure. To further understand the impacts project level HRA's will be required for each site allocation.

Further work is also necessary to provide evidence that appropriate mitigation will be delivered from the GI strategy. This strategy, along with Council's Open Space, Sport and Recreation Audit will be able to identify more spaces for recreation.

The HRA assessment has also recommended that certain housing development site allocations are not progressed due to adverse impacts on European sites.

New Forest National Park Authority Core strategy and Development Management Policies

Plan Owner/ Competent Authority:	New Forest National Park Authority
Related HRA/AA:	Core Strategy and Development Management Policies Habitats and Regulations Assessment (January 2010)
Notes on Plan documents:	Core Strategy and Development Management Policies DPD (adopted December 2010)

Conclusions on potential effects of relevance to European sites within scope of HRA of New Forest Local Plans

The HRA concluded that there would be no adverse effects on designated European sites. It was considered that polices in place would enable delivery of measures necessary to mitigate any adverse effects.

The following potential risks to the designated European sites were identified and subsequently ruled out:

Recreation: Potential adverse effects on the Solent & Southampton Water SPA and Ramsar from recreational disturbance was identified as increased recreational access to the New Forest (facilitated by improved access and facilities associated with Policy *CP19*) could lead to increased visitor numbers on the adjacent Solent sites contributing to disturbance of bird species. The HRA notes the impact from the Core Strategy itself is likely to be minor. However, any adverse effect would arise from an 'in combination' impact within the context of increased populations across the South Hampshire sub-region. Adverse effects from recreational pressure on the Solent and Southampton Water SPA were also identified from development of facilities on sports pitches and farmland away from the SPA used by Brent Geese for feeding under Policy *CP16*. However, the HRA rules out the adverse effects on the Solent and Southampton Water SPA from recreation due to mitigation provided through policies *CP16, CP19, CP1, CP2, DP1, CP3, DP3, DP18, DP23* and *DP21*.

Water Resources, Flows and Quality: A potential risk to all Solent designated sites were identified due to policy *CP13,* pertaining to gypsy and traveller site provision, not specifying the need for water and sewerage provision for gypsy and traveller communities. An increase in visitor numbers was also identified to increase demand on waste water and sewerage facilities within the National Park. However, these adverse effects were ruled out as the HRA deemed hydrological issues were taken into account through a number of policies, particularly DP2 which will not permit development that will harm quality or yield of water sources.

Air Quality: Recreational access the New Forest (facilitated by improved access and facilities associated with Policy *CP19*) could lead to increase visitor numbers to adjacent designated Solent that are sensitive to nutrient enrichment from aquatic and atmospheric pollution. However, it is concluded that *CP19, CP16, DP1, CP6, CP18, CP1* would mitigate against this risk.

Poole Site Specific Allocations and Development Management Policies	
Plan Owner/ Competent Authority:	Borough of Poole
Related HRA/AA:	Poole Site Specific Allocations and Development Management Policies Sustainability Appraisal (July 2011)[97]
Notes on Plan documents:	The Poole Local Plan, once completed, will set a new plan for Poole to meet needs and guide development to 2033

Conclusions on potential effects of relevance to European sites within scope of HRA of New Forest Local Plans

The SA (including HRA screening) concluded that screening did not identify any significant adverse impacts on European sites that could not be resolved through the application of appropriate avoidance measures taken forward to Submission.

Potential adverse effects were identified at the following sites at Appropriate Assessment stage:

Policy SSA 16 Talbot Village – Houses in Multiple Occupation: SA identifies potential recreational disturbance from proposed residential housing. However, Appropriate Assessment concluded the likely adverse effect on Dorset Heathlands SPA to be minimal given the limited number for HMO properties in Talbot Village.

Policy SSA 19 Bourne House, Langside Avenue: Although within close proximity to the Dorset Heathland SPA/Ramsar, HRA concluded that the nature of development would not have an adverse impact on SPA/Ramsar.

Policy SSA 20 Wallisdown Road: Land to the south of Wallisdown Road is located in the Dorset Heathlands SPA Ramsar site. However, HRA concluded that mitigation measures put in place would result in no adverse impacts on the SPA/Ramsar.

Policy SSA 21 Facilities for Park and Ride: Site identified as having potential adverse effects on the Dorset Heathlands SPA. However, Appropriate Assessment deemed it would not result in any potential adverse impacts on designated sites.

Poole Local Plan Pre submission draft 2017	
Plan Owner/ Competent Authority:	Borough of Poole
Related HRA/AA:	Poole Local Plan Submission Stage Habitats Regulations Assessment (2017) [98]
Notes on Plan documents:	The Poole Local Plan, once completed, will set a new plan for Poole to meet needs and guide development to 2033

Conclusions on potential effects of relevance to European sites within scope of HRA of New Forest Local Plans

At Appropriate Assessment stage, the HRA could not rule out the following significant effects:

Recreation: HRA concluded that it is not possible to rule out adverse effects on the integrity of Dorset Heathlands SPA, SAC and Ramsar site owing to absence of housing phasing and work to secure further SANGs. Both phasing of housing and a review of SANGs is recommended.

Habitat loss/interference: HRA concludes that the plan could have significant adverse effects on the Dorset Heathlands SPA due to direct loss of foraging habitat for Nightjars. The HRA recommends that the local plan to recognise the importance of this issue and protect critical habitat corridors.

Air Quality: HRA could not rule out adverse effects on Dorset Heathlands SPA and Ramsar Site owing to the general increase in traffic along existing routes as a result of new employment and housing development sites. It is recommended that the preparation of the Local Transport Plan and its HRA should include ensuring adequate protection for Dorset Heathlands.

[97] http://www.poole.gov.uk/planning-and-buildings/planning/planning-policy/site-specific-allocations-and-development-management-policies/

[98] Hoskin, R., Liley, D. & Underhill-Day, J. (2017). Habitat Regulations Assessment of the Poole Local Plan, Publication Stage

Southampton Core Strategy Partial Review and City Centre Action Plan	
Plan Owner/ Competent Authority:	Southampton City Council
Related HRA/AA:	Core Strategy Habitats Regulations Assessment Summary Report
Notes on Plan documents:	Plan adopted January 2010; partial review adopted March 2015. Development provided for includes 16,300 new homes, 110,000 sq m of office development and 97,000 sq m of industrial/warehouse development between 2006 and 2026.

Conclusions on potential effects of relevance to European sites within scope of HRA of New Forest Local Plans

The following likely significant effects were identified:

Coastal Squeeze: this is likely to have a significant effect on the Solent and Southampton Water SPA/ Ramsar site and Solent Maritime SAC. The forthcoming North Solent Shoreline Management Plan is expected to be addressed and mitigate for the impacts of coastal squeeze.

Recreational disturbance: an increase in visitor numbers could potentially cause significant impacts on Solent and Southampton Water SPA/ Ramsar site, Solent Maritime SAC and the New Forest SAC/SPA/Ramsar site. A Solent Disturbance and Mitigation Study will be undertaken to identify the potential impacts of recreation. Appropriate mitigation measures can be devised from this.

Air pollution: could potentially cause significant impacts on Solent and Southampton Water SPA/ Ramsar site and Solent Maritime SAC and the New Forest SAC/SPA/Ramsar. There is potential for in combination effects with Draft South East Plan and Southampton Airport.

Tall buildings and flight/view lines: there is potential for likely significant effects Solent and Southampton Water SPA/ Ramsar, however there is insufficient information to assess this.

Increased effluent discharge: has potential likely significant impact on Solent and Southampton Water SPA/ Ramsar, Solent Maritime SAC, the New Forest SAC/ SPA/ Ramsar. There is potential for in combination effects with Draft South East Plan.

Increased water demand: this could cause likely significant effects on Solent and Southampton Water SPA/ Ramsar, Solent Maritime SAC, the New Forest SAC/ SPA/ Ramsar. This is also considered to be an adverse effect of the Draft South East Plan.

Noise/Light pollution: impacts are currently uncertain.

Test Valley Borough Revised Local Plan DPD 2011-2029	
Plan Owner/ Competent Authority:	Test Valley Borough Council
Related HRA/AA:	Revised Local Plan DPD 2011 – 2029 Regulation 22, July 2014 HRA Assessment for Revised Local Plan DPD, June 2014
Notes on Plan documents:	Plan adopted January 2016. Development provided for includes 10,584 new homes and allocation of 63,000 sq m of employment land between 2011 and 2029.

Conclusions on potential effects of relevance to European sites within scope of HRA of New Forest Local Plans

Recreational disturbance was identified as a likely potential threat to European designated sites. The policies relating to this include:

- *COM1 Housing Provision 2011 – 2029*
- *COM3 New Neighbourhood at Whitenap, Romsey;*
- *COM4 New Neighbourhood at Hoe Lane, North Baddesley*

These policies are likely to cause disturbance to species in the New Forest SPA/ Ramsar and Solent and Southampton Water SPA/ Ramsar through increased visitor numbers from new housing developments. *COM1* recognises the necessity to identify any impacts to European sites from any future development plans. The potential impacts of strategic allocations provided for by *COM3* and *COM4* are mitigated by the requirement within these policies to provide 8.0 Ha of alternative recreation space per 1,000 population at Beggarspath Wood and Luzborough Plantation. *Policy E5* requires developments to comply with the Habitats Regulations, including provision of measures to mitigate adverse effects; supporting text states that the Council will seek developer contributions towards a range of mitigation measures, including securing access to new areas of land for informal recreation. In this regard, the supporting text

Test Valley Borough Revised Local Plan DPD 2011-2029
also notes partnership work to mitigate recreational pressures on the New Forest and Solent European sites. In the short term, the Council has approved interim mitigation packages in respect of both of the New Forest[99] and Solent Coast[100]. Potential in combination effects from the Test Valley Revised Local Plan are therefore considered to have been fully mitigated.

Wiltshire Core Strategy	
Plan Owner/ Competent Authority:	Wiltshire Council
Related HRA/AA:	Wiltshire Core Strategy Updated Habitats Regulations Assessment[101]
Notes on Plan documents:	Plan adopted January 2015. Development provided for include at least 42,000 new homes and 178 ha of new employment land.
Conclusions on potential effects of relevance to European sites within scope of HRA of New Forest Local Plans The following likely significant impacts in combination with other plans were identified: Water abstraction and pollution: additional housing from policies *CP2 – Delivery Strategy, CP4 – Amesbury, CP17 – Mere, CP24 – Southern Wiltshire, Cp26 – Tidsworth and Ludgershall and CP31 – Warminster* had the potential to contribute to likely significant impact. However, Wessex Water and Thames Water have confirmed that the increased housing numbers can be supplied within licensed abstraction headroom and sewage discharge accommodated for at the Sewage Treatment Works. It was concluded that there would be no adverse effect on the River Avon SAC Recreation: proposed housing within the South Wiltshire CA was considered to marginally increase recreational pressure to the New Forest SAC. *CP50: Biodiversity and Geodiversity* and Recreational Management Strategy were found to be valid and effective. Air pollution: there is potential for likely significant effects for any European designated site as a result of increased traffic. The existing mitigation described in *CP55: Air Quality* is considered valid and that it will remain effective.	

County level plans providing for development

Hampshire Minerals and Waste Plan[102]	
Plan Owner/ Competent Authority:	Hampshire County Council and its partner authorities, Southampton City Council, Portsmouth City Council, New Forest National Park Authority and South Downs National Park Authority
Related HRA/AA:	Hampshire Minerals & Waste Plan Assessment Under the Habitats Regulations, July 2013[103]
Notes on Plan documents:	Adopted October 2013 The Minerals and Waste Local Plan replaces the Minerals and Waste Core Strategy and comprises of strategic approach and policies, strategic sites allocations considered necessary to deliver the Plan objectives and general and site-specific development management policies.
Conclusions on potential effects of relevance to European sites within scope of HRA of New Forest Local Plans The HRA concludes that there are no likely significant effects on any European sites, as a result of Hampshire's proposed policies on their own and in combination with other plans, as long as recommended measures to avoid and	

[99] New Forest Interim Mitigation Framework 2014 requires mitigation where there would be a net gain in dwellings within 13.6 km of New Forest SPA

[100] Requires mitigation where there would be a net gain in dwellings within 5.6 km of Solent and Southampton Water SPA

[101] http://www.wiltshire.gov.uk/planninganddevelopment/planningpolicy/wiltshirecorestrategy/wiltshirecorestrategyexamination.htm

[102] http://www3.hants.gov.uk/mineralsandwaste/planning-policy-home.htm

[103] http://www3.hants.gov.uk/mineralsandwaste/planning-policy-home.htm

Hampshire Minerals and Waste Plan[102]
mitigate are implemented.

Hampshire Local Transport Plan 2011-2031[104]	
Plan Owner/ Competent Authority:	Hampshire County Council
Related HRA/AA:	Habitats Regulations Assessment for the Hampshire Local Transport Plan 3, March 2011[105]: Screening Statement for Part A 20 Year Strategy
Notes on Plan documents:	Approved February 2011 Transport priorities for Hampshire are: • Supporting the economy through resilient highways; • Management of traffic; • The role of public transport; • Quality of life and place; • Transport and growth areas.
Conclusions on potential effects of relevance to European sites within scope of HRA of New Forest Local Plans The HRA considers it unlikely that the proposed LTP3 Strategy will generate significant effects at any European site included in the assessment, either alone or in combination with other plans and projects. A stage 2 Appropriate Assessment was not considered necessary.	

Bournemouth, Dorset and Poole Minerals Strategy[106]	
Plan Owner/ Competent Authority:	Dorset County Council, Bournemouth Borough Council and Borough of Poole
Related HRA/AA:	Bournemouth, Dorset & Poole Minerals Core Strategy Pre-Submission Draft Conservation Regulations Assessment, January 2013[107]
Notes on Plan documents:	Adopted May 2014 The Minerals Core Strategy replaces a number of saved minerals policies of the Dorset Minerals and Waste Local Plan (1999). The Minerals Core Strategy is part of the Minerals and Waste Development Framework, which also includes the Minerals Site Allocations Document and the Adopted Policies Map.
Conclusions on potential effects of relevance to European sites within scope of HRA of New Forest Local Plans The HRA screening assessment finds all policies to be unlikely to have significant effects on European sites. Providing recommended additions and alterations in wording to policy, criteria and text are included, the Minerals Core Strategy is compliant with Habitat Regulations.	

Bournemouth, Dorset and Poole Draft Waste Plan[108]	
Plan Owner/ Competent Authority:	Dorset County Council, Bournemouth Borough Council and Borough of Poole
Related HRA/AA:	Bournemouth, Dorset & Poole Draft Waste Plan Conservation Regulations Assessment

104 http://www3.hants.gov.uk/transport/local-transport-plan.htm
105 http://www3.hants.gov.uk/transport/local-transport-plan.htm
106 https://www.dorsetforyou.com/mcs
107 https://www.dorsetforyou.com/mcs/examination-library
108 https://www.dorsetforyou.com/waste-plan

Bournemouth, Dorset and Poole Draft Waste Plan[108]	
	Screening Report, July 2015[109]
Notes on Plan documents:	Consultation on the Draft Waste Plan took place from 15 July to 23 September 2015 The Waste Plan sets out policies and identifies locations to guide development proposals during the Plan period.
Conclusions on potential effects of relevance to European sites within scope of HRA of New Forest Local Plans The HRA screening report concluded there were no likely significant impacts to European sites. However, there was an element of uncertainty with policies 1-8 and 10. To ensure there are no likely significant impacts to European sites the report recommends that text is incorporated in policies regarding specific allocation of sites for waste development or allow for waste development in general.	

Bournemouth, Dorset and Poole Local Transport Plan[110]	
Plan Owner/ Competent Authority:	Dorset County Council, Bournemouth Borough Council and Borough of Poole
Related HRA/AA:	Bournemouth, Poole & Dorset Local Transport Plan 2011-2026 Habitats Regulations Assessment Report, April 2011[111]
Notes on Plan documents:	Covers the period 2011-2026 and came into effect April 2011 Transport priorities for Bournemouth, Dorset and Poole: • Enhanced quality of life and sense of place • Meeting the needs of children and young people • Meeting the needs of an ageing population • A thriving and prosperous economy • Safer and stronger communities • Inclusive neighbourhoods promoting equality of opportunity • Protect, respect and enhance the environment • Improved health and wellbeing
Conclusions on potential effects of relevance to European sites within scope of HRA of New Forest Local Plans It is unlikely that the Local Transport Plan will have a significant effect on European designated sites, as long the recommendations provided the report are incorporated. The report recommends the addition of policies in section 9 regarding public transport alternatives to cars and the impacts of air pollution. Other recommendations include project level HRA for projects identified in the HRA screening to avoid or mitigate for impacts. Equally, the report suggests monitoring commitments from the Strategic Environmental Appraisal should be adhered to.	

Wiltshire Minerals Core Strategy[112]	
Plan Owner/ Competent Authority:	Wiltshire Council
Related HRA/AA:	Wiltshire & Swindon Aggregate Minerals Site Allocations DPD Pre-Submission Habitats Regulations Assessment Screening Report, January 2012
Notes on Plan documents:	The Minerals Core Strategy (adopted June 2009) sets out the spatial vision, key objectives and overall principles for development covering minerals provision up to 2026.
Conclusions on potential effects of relevance to European sites within scope of HRA of New Forest Local Plans The HRA identified three proposed extraction sites to lie in close proximity to European sites that may have potential significant effects. A detailed assessment concluded that these sites would not have a significant effect alone or in	

[109] https://www.dorsetforyou.com/waste-plan
[110] https://www.dorsetforyou.com/article/417819/View-the-Local-Transport-Plan
[111] https://www.dorsetforyou.com/article/402212/Strategic-Environmental-Assessments
[112] http://www.wiltshire.gov.uk/planninganddevelopment/planningpolicy/mineralsandwastepolicy.htm#minerals_core_strategy

Wiltshire Minerals Core Strategy[112]
combination with other plans on the European designated sites. Appropriate site level mitigation should be considered in regards to mineral extraction sites. It is recommended that individual extraction sites should undergo project level HRA.

Wiltshire Waste Core Strategy[113]	
Plan Owner/ Competent Authority:	Wiltshire Council
Related HRA/AA:	Habitats Regulations Assessment of the Wiltshire and Swindon Minerals and Waste Development Framework, December 2011
Notes on Plan documents:	The Waste Core Strategy (adopted July 2009) sets out the spatial vision, key objectives and overall principles for development covering the provision of sustainable waste management facilities up to 2026.
Conclusions on potential effects of relevance to European sites within scope of HRA of New Forest Local Plans The HRA identified two of the 35 proposed sites were situated within a distance to the River Avon SAC and other European sites to have an adverse effect. The implementation of robust site management plan and restricting the operation of facilities to daylight hours, were identified for waste development at the sites are considered to prevent significant adverse impacts. To address concerns about water pollution from Natural England, it is recommended that surface water management strategy that specifically considers the integration of surface water drainage systems is accompanied by any proposals for the two sites.	

Wiltshire Local Transport Plan[114]	
Plan Owner/ Competent Authority:	Wiltshire Council
Related HRA/AA:	Wiltshire Local Transport Plan 2011 – 2026 Habitat Regulations Assessment Screening, October 2010[115]
Notes on Plan documents:	The Wiltshire LTP sets out the council's objectives, plans and indicators for transport in Wiltshire. The third Wiltshire Local Transport Plan (LTP3) covers the period from March 2011 to March 2026.
Conclusions on potential effects of relevance to European sites within scope of HRA of New Forest Local Plans The overall conclusion of the HRA is that there no significant effects on European sites, as long as recommended avoidance and mitigation measures are including in the LPT3 plan/daughter documents. The HRA for the local transport plan of Wiltshire originally could not rule out the following significant effects: Water quality: the HRA was unable to rule out significant affects to water quality of the River Avon SAC as a result of sedimentation from roads and bridleways. However, the implementation of a robust construction method statement for all works of any nature on roads adjacent to the SAC would remove any significant adverse effects on the features of the SAC.	

Significant projects

None identified.

[113] http://www.wiltshire.gov.uk/planninganddevelopment/planningpolicy/mineralsandwastepolicy.htm#minerals_core_strategy

[114] http://www.wiltshire.gov.uk/council/howthecouncilworks/plansstrategiespolicies/transportpoliciesandstrategies/localtransportplan3.htm

[115] http://www.wiltshire.gov.uk/council/howthecouncilworks/plansstrategiespolicies/transportpoliciesandstrategies/localtransportplan3.htm

Appendix 4
Policy screening matrix

Element of Local Plan Part 1	HRA screening conclusion	**Justification** (see key in Chapter 2)	Types of likely significant effect not ruled out
Chapter 1. Introduction			
Introduction	Screened out	**F** - Describes the process for developing and consulting on the Local Plan, the role of companion documents that will support its implementation and its relationship to Neighbourhood Plans. Does not contain any policies and will not lead to development or change.	N/A
Chapter 2. Area profile and context			
Area profile and context	Screened out	**F** - Describes the geography of and conditions within the Local Plan area. Does not contain any policies and will not lead to development or change.	N/A
Chapter 3. Vision, key issues and strategic objectives			
Key issues	Screened out	**F** - Local expression of the requirements and objectives for plan-making set out in national guidance, drawing on the SA, other evidence and officer experience. Does not contain any policies and will not lead to development or change.	N/A
Vision and strategic objectives	Screened out	**A** – The vision and objectives contain elements that will shape development in the District and which could theoretically lead indirectly to a significant effect on a European site. For example, the vision for Totton and the Waterside includes *"Provision of significant new communities and supporting infrastructure at Totton, Marchwood, and through the regeneration of the former Fawley power station"*, these areas being close to the European designations of the Solent and Southampton Water. However, such general aspirations would not lead to development on their own but are instead implemented through the Local Plan's policies, each of which is subject to HRA screening below.	N/A
Chapter 4. The spatial strategy			
Policy 1: Achieving sustainable development	Screened out	**A, F** – Policy will not lead to development but is a general statement of sustainable development principles.	N/A
Policy 2: Protection of the countryside, Cranborne Chase Area of Outstanding Natural Beauty and the adjoining New Forest National Park	Screened out	**D, F** – Policy seeks to protect the natural beauty of the landscape and will not lead to development.	N/A
Policy 3: The strategy for locating new development	Screened in	Policy summarises the spatial strategy, directing most development to existing towns and villages and restricting development in rural locations away from these settlements. Whilst the policy is mostly implemented through other, more detailed policies, it combines with the Settlement Hierarchy, Meeting our Housing Needs, and	Direct loss or physical damage to European sites Loss or damage to offsite

Element of Local Plan Part 1	HRA screening conclusion	Justification (see key in Chapter 2)	Types of likely significant effect not ruled out
		Strategic Site Allocation policies to define where most development will go and which uses are appropriate in which locations. The potential effects of these policies are considered via the HRA of the strategic site allocations in Chapter 5 or via lower tier HRA, as described below under the initial screening of the *Meeting our housing needs* policy.	supporting habitat Urban edge effects Changes in air quality Traffic collision risk Recreation pressure Changes in water quantity Changes in water quality
Policy 4: The settlement hierarchy	Screened in	Policy establishes a hierarchy of settlements and describes the broad types or scale of development appropriate at each level. While the policy will not, by itself, lead to development, it combines with the Strategy for Locating New Development, Meeting our Housing Needs, and Strategic Site Allocation policies to define where most development will go and which uses are appropriate in which locations. The potential effects of these policies are considered via the HRA of the strategic site allocations in Chapter 5 or via lower tier HRA, as described below under the screening of the *Meeting our housing needs* policy.	Direct loss or physical damage to European sites Loss or damage to offsite supporting habitat Urban edge effects Changes in air quality Traffic collision risk Recreation pressure Changes in water quantity Changes in water quality
Policy 5: Meeting our housing needs	Screened in	Policy establishes the total amount of housing to be provided in the District in the Local Plan period (around 10,500 homes). The components of this total are subject to HRA as follows: • 6,000 homes via strategic allocations in the Local Plan, including 1,380 homes at former Fawley Power Station – effects are assessed together with those of the Settlement Hierarchy, Spatial Strategy, and Strategic Site Allocation policies in Chapter 5; • 800 homes to be allocated in the Local Plan Part 2 and Neighbourhood Development Plans for New Milton and Lymington - these plans will be subject to their own HRAs, as appropriate; • 2,700 committed developments which the Local Plan cannot influence and which will already have been subject to HRA, as appropriate; • 1,000 windfalls, the effects of which will be assessed through the development management process via site-specific HRAs, as appropriate.	Direct loss or physical damage to European sites Loss or damage to offsite supporting habitat Urban edge effects Changes in air quality Traffic collision risk Recreation pressure Changes in water quantity Changes in water quality

Element of Local Plan Part 1	HRA screening conclusion	Justification (see key in Chapter 2)	Types of likely significant effect not ruled out
Policy 6: Sustainable economic growth	Screened in	Policy establishes the total amount of employment land to be provided in the District in the Local Plan period (18 hectares). The employment land is within the residential-led mixed-use Strategic Site Allocations at Totton (SS1), Fawley (SS4) and East Ringwood (SS14) and the effects of this employment provision are assessed alongside those of housing provision in Chapter 5. Policy also provides more general support for economic growth but these other aspects of the policy will not lead directly to development.	Direct loss or physical damage to European sites Loss or damage to offsite supporting habitat Urban edge effects Changes in air quality Traffic collision risk Recreation pressure Changes in water quantity Changes in water quality
Policy 7: Strategic transport proposals	Screened out	**C** - Policy seeks to facilitate strategic transport improvements proposed by other documents (e.g. the Hampshire Local Transport Plan 3) but does not itself propose development. Site-specific transport interventions are addressed in site allocation policies.	N/A
Policy 8: Community services, infrastructure and facilities	Screened out	**A, C** – Policy provides broad strategy for infrastructure provision and retention but infrastructure development will be brought forward through other plans or more specific policies in the Local Plan (e.g. policies on port development, open space, and strategic site allocations).	N/A
Chapter 5. Protecting our special environment			
Policy 9: Nature conservation, biodiversity and geodiversity	Screened out	**D** - Policy seeks to protect, retain and, where possible, enhance sites, species and features of importance for nature conservation, including European sites.	N/A
Policy 10: Mitigating the impact of development on international nature conservation sites	Screened out	**D** - Subject to the Habitats Regulations' IROPI test, policy states that development will only be permitted where adverse effects (alone or in combination) on the integrity of the following European sites can be ruled out: New Forest SAC, SPA, Ramsar site; Solent Maritime SAC; Solent and Isle of Wight Lagoons SAC; Solent and Southampton Water SPA and Ramsar site; River Avon SAC and Ramsar site; River Itchen SAC. Policy also refers to pre-approved measures for residential development set out in the policy itself and in the Mitigation for Recreational Impacts SPD, the Solent Recreation Mitigation Strategy, and to be set out in the forthcoming River Avon Nutrient Management Plan.	N/A
Policy 11: Heritage and conservation	Screened out	**D** – Policy provides for protection of the historic environment and does not include any proposals that could harm European sites.	N/A
Policy 12: The South West	Screened	**A** - Policy supports the continued protection of the openness of existing Green Belt areas and will not lead to development. Supporting text acknowledges that some	N/A

Element of Local Plan Part 1	HRA screening conclusion	Justification (see key in Chapter 2)	Types of likely significant effect not ruled out
Hampshire Green Belt	out	Green Belt land making a weaker contribution to Green Belt purposes that is also in an appropriate location for strategic housing development has been removed from the Green Belt. The related development is allocated via the Strategic Site policies and the assessment of potential effects on European sites is therefore delegated to the HRA of those policies.	
Policy 13: Design quality and local distinctiveness	Screened out	**F** – Policy promotes high quality design that contributes positively to local distinctiveness, quality of life and enhances the character and identity of the locality and will not lead to development.	N/A
Policy 14: Landscape character and quality	Screened out	**D** - Landscape protection policy that will not lead to development.	N/A
Policy 15: Open spaces, sport and recreation	Screened out	**A** - Policy establishes requirements for open space but new open spaces will be co-located with housing developments or subject to individual open space allocation policies, both of which are subject to separate assessment in this HRA. Also establishes the principle that formal open space (e.g. sports pitches) will be required at selected locations but those locations are the subject of separate policies/allocations that are separately assessed.	N/A
Chapter 6: Providing for our housing needs			
Policy 16: Housing type, size and choice	Screened out	**F** - Policy sets targets for the proportion of the total housing provision to be provided in different size categories and different tenures. Also provides for a diversity of housing types within strategic site allocations. As such the policy will not itself lead to development.	N/A
Policy 17: Affordable housing	Screened out	**F** – Policy seeks to secure provision of a proportion of housing as affordable but will not itself lead to development.	N/A
Policy 18: Residential accommodation for older people	Screened out	**F** - Policy encourages housing design that responds to local ageing population but will not lead to development.	N/A
Policy 19: Gypsies, travellers and travelling showpeople	Screened out	**B** – Policy provides criteria for testing the acceptability of development proposals that come forward (including ecological impact) but will not itself lead to development	N/A
Policy 20: Rural housing exception sites and community led housing schemes	Screened out	**B** - Affordable housing developments may be permitted as exceptions on sites in rural areas to meet the identified needs of local people in these areas. While the policy allows for rural housing development in exceptional circumstances, the general principle of that housing development is established in Policy 5 and assessed in Chapter 5. More detailed assessment is not possible until individual proposals come forward and these will be subject to project level HRA, if relevant, as part of the development management process.	N/A
Chapter 7. Supporting the			

Element of Local Plan Part 1	HRA screening conclusion	Justification (see key in Chapter 2)	Types of likely significant effect not ruled out
local economy			
Policy 21: Employment land and development	Screened out	**B** – Policy provides general support for intensification of existing employment and other suitable sites within town centres, criteria for employment development in other parts pf built-up areas and criteria for unallocated sites and sites outside built-up areas. No site-specific development proposals.	N/A
Policy 22: Retention of employment sites and consideration of alternative uses	Screened out	**B** – Policy protects existing employment use and sets exception criteria for conversion to other uses.	N/A
Policy 23: Marchwood Port	Screened in	The policy safeguards the site for port and port-related uses, including commercial, economic and local employment generating purposes, as well as effective use of the port rail connection. It also sets criteria to govern future proposals. The foreshore of Marchwood Port lies immediately to the north of part of Solent and Southampton Water SPA and Ramsar site and development at this location has the potential to have a significant effect on the site. Should proposals trigger the NSIP process, the Council's Local Impact Report would address local matters, similarly to the 'Port development: Dibden Bay' policy. The potential effects of this policy are considered further in Chapter 5.	Direct loss or physical damage to European sites; loss or damage to offsite supporting habitat; urban edge effects; changes in water quantity; changes in water quality Changes in air quality; traffic collision risk
Policy 24: Port development at Dibden Bay	Screened out	**C, D** - Solent and Southampton Water SPA and Ramsar site includes the Dibden Bay foreshore. However, this policy does not propose or support port development at Dibden Bay but sets out the main considerations to be taken into account by the Council in the preparing a Local Impact Report should an application be made for port development, which would be likely to be under the National Significant Infrastructure Project (NSIP) process and hence be subject to project-specific HRA. The matters required to be addressed in a Local Impact Report are listed in supporting text and include HRA of effects on the Solent and Southampton Water Ramsar Site and SPA, on the Solent Maritime SAC, and on the New Forest SPA and SAC.	N/A
Policy 25: Retail development and other main town centre uses	Screened out	**A** - Policy supports the renewal of and investment in town centres and large villages by applying a 'town centres first' approach in determining development proposals for retailing and the other Main Town Centre Uses but does not make any specific development proposals.	N/A
Policy 26: Primary, secondary and local shopping frontages	Screened out	**B, F** - Policy sets out how changes of use in shopping areas other than those subject to permitted development rights will be managed, seeking to safeguard the retail character, vitality and viability of shopping frontages.	N/A
Policy 27: Tourism	Screened out	**A, D** - Policy provides strategy for supporting the local tourism industry but does not make any specific development proposals; also supports measures which would relieve tourist pressures on the most sensitive areas of the New Forest National Park and	N/A

Element of Local Plan Part 1	HRA screening conclusion	Justification (see key in Chapter 2)	Types of likely significant effect not ruled out
		protect and enhance vulnerable habitats.	
Policy 28: Rural economy	Screened out	**A** - Policy provides strategy for supporting the rural economy but does not make any specific development proposals.	N/A
Chapter 8. Addressing community safety and climate change			
Policy 29: Safe and healthy communities	Screened out	**D, F** - Policy seeks to protect human health and safety. Requirements include avoiding pollution or hazards in new development; taking opportunities offered by development to remediate existing hazards; restricting development within hazardous military or industrial areas; avoiding vulnerable developments within the Climate Change Management Area at Barton-on-Sea to Milford-on-Sea.	N/A
Policy 30: Coastal Change Management Areas	Screened out	**F** - Policy restricts vulnerable types of development within a defined coastal erosion zone on the south coast of the District from the District boundary west of Barton on Sea to Milford on Sea. Whilst the policy states that certain types of less vulnerable development may be permitted it does not promote these and therefore would not lead to development by itself. Appropriate types of development that do come forward would be subject to HRA through the development management process, if required. Development that is deemed appropriate in this zone could increase the need to maintain coastal protection and flood defences. Whilst these could potentially result in coastal squeeze and subsequent loss or damage to coastal habitats in European sites, these measures are subject to Shoreline Management Plans (SMP). The coast of New Forest District falls within the North Solent SMP[116], a lower tier plan that establishes more detailed and spatially specific policy for coastal protection and identifies opportunities for establishing replacement habitat to mitigate that lost through coastal squeeze due to the maintenance of sea defences. The Appropriate Assessment of the SMP confirms that the vast majority of the north Solent defences are fronted and/or backed by European designated sites or by non-designated sites that support the function of designated sites. European sites scoped into the HRA of the Local Plan Part 1 for which adverse effects were identified were Solent and Southampton Water SPA and Ramsar site and Solent Maritime SAC. These effects could not be adequately mitigated but the plan was approved for Imperative Reasons of Overriding Public Interest (IROPI) and compensation secured to maintain the integrity of the affected European sites.	N/A
Policy 31: Safe and sustainable travel	Screened out	**A** – Policy addresses in general terms how new development is accessed including parking and servicing arrangements, and how the development is connected to the road network, public transport services, footpaths and cycle ways. Pedestrian access is prioritised. The Strategic Site Allocation Policies set out site specific requirements	N/A

[116] New Forest District Council (2010) North Solent Shoreline Management Plan

Element of Local Plan Part 1	HRA screening conclusion	Justification (see key in Chapter 2)	Types of likely significant effect not ruled out
		for transport measures identified to be necessary to support the proposed development and these are assessed separately.	
Policy 32: Development generating significant freight movement	Screened out	**E, F** - Policy requires that developments generating significant freight movements be located close to the main road network, that links from developments to main roads are capable of accommodating the extra movements, and that appropriate measures are taken to mitigate any adverse impacts of additional movements along these links. As such the policy will not lead to development and may help to avoid the need for road schemes to enhance the capacity of minor roads which could in turn have adverse effects on sensitive European sites.	N/A
Policy 33: Renewable and low carbon energy generation	Screened out	**A, D** – Whilst the policy provides support for renewable energy schemes and these could potentially have adverse effects on European sites, this general policy statement would have to come forward through more specific proposals which would be subject to HRA through the development management process. In addition, the general policy support is subject a variety of criteria including avoidance of unacceptable impacts on European sites.	N/A
Implementation and monitoring			
Policy 34: Developer contributions	Screened out	**D, F** – Policy requires provision of any on-site and off-site infrastructure, facilities, public open space and habitat mitigation measures that are necessary and reasonably required to support the development and mitigate its impacts to achieve a sustainable development. It will not lead to development.	N/A
Policy 35: Development standards	Screened out	**D, F** - Policy identifies issues where higher development standards than those set by Building Regulations are appropriate in the plan area and sets related standards. In general these will have no effect on European sites with the exception of the two requirements that will help to mitigate potential adverse effects of development: - a higher water use efficiency standard (110 litres per person per day) that will help to avoid water quantity effects; and - a requirement to enable the convenient installation of electric vehicle charging points that will help to reduce air pollution from road traffic.	N/A
Policy 36: Monitoring	Screened out	**F** – Policy establishes monitoring framework for Local Plan policies and will not lead to development.	N/A
Strategic site allocation policies			
Multiple site allocation polices (SS 1-SS 18)	Screened in	Policies allocate strategic sites for 6,005 homes. Three of these sites, Totton (SS 1), Fawley (SS 4) and East Ringwood (SS 14), are allocated for mixed use. These policies combine with the Strategy for Locating New Development, Settlement Hierarchy, and Meeting our Housing Needs, and Sustainable Economic Growth policies to define where	Direct loss or physical damage to European sites Loss or damage to offsite

Element of Local Plan Part 1	HRA screening conclusion	Justification (see key in Chapter 2)	Types of likely significant effect not ruled out
		most development will go and which uses are appropriate in which locations. The potential effects of these policies are considered together in Chapter 5.	supporting habitat Urban edge effects Changes in air quality Traffic collision risk Recreation pressure Changes in water quantity Changes in water quality

Appendix 5

Consultation responses on HRA at earlier stages of plan development

Consultation on April 2016 joint HRA Scoping document for New Forest Local Plans

Consultee	HRA Scoping Report ref.	Summary of comment	LUC response & discussion points
Natural England	Paras. 2.7-2.9: European sites to be included in the HRAs.	Mottisfont Bats SAC planning protocol establishes a buffer distance of 7.5 km beyond which likely significant effects on the designated bat population are unlikely; LUC encouraged to check whether the buffer overlaps with the NFDC boundary before scoping it into the HRA of the New Forest District Local Plan.	NFDC boundary lies just beyond a 7.5 km buffer around Mottisfont Bats SAC therefore potential for likely significant effects will be ruled out for HRA of the New Forest District Local Plan. Mottisfont Bats SAC remains in scope for HRA of the New Forest NPA Local Plan as the National Park is within approximately 6.0 km of the SAC at its closest point.
Natural England	Page 11: New Forest NPA's Development Standards SPD calls for developer contributions towards mitigation measures where developments are located within 400 m of the New Forest SPA. The NPA reports that since adopting the SPD it has become apparent that impacts can occur over greater distances and that mitigation is therefore normally sought for all development within the National Park, including visitor accommodation.	Natural England supports this change in approach which is consistent with that applied by NFDC.	No further action required.
Natural England	Para. 2.25: The need to review NFDC's adopted Mitigation Strategy SPD in light of higher housing numbers. Table 3.2: Section on potential mitigation for recreation pressure.	Natural England would welcome consideration of the emerging 'Green Halo' project led by NFNPA in terms of how this could tie in with mitigation for recreational impacts on the New Forest European designations within both LPA areas.	Emerging 'Green Halo' project envisages a strategic approach to the provision of green infrastructure and the management of natural capital in a ring around the outer boundary of the National Park. It is recommended that NFDC and NFNPA give consideration to the potential contribution of this project to their respective recreation pressure mitigation strategies. The HRAs will take account of all proposed mitigation in the round.
Natural England	Paras. 3.23-3.24 The need for the two local planning authorities to review their existing recreation mitigation strategies in discussion with Natural England and other stakeholders to ensure that they will remain effective in light of the revised housing figures being proposed.	Natural England would be happy to be involved in such discussions.	Noted.
Natural England	Appendix 2 Review of other plans and projects: Section on potential recreational disturbance of New Forest European sites from development proposed in Southampton Core Strategy.	Natural England is working with Southampton City Council to develop a mitigation package.	Noted.

Consultee	HRA Scoping Report ref.	Summary of comment	LUC response & discussion points
Hampshire and Isle of Wight Wildlife Trust	Paras. 2.7-2.9: European sites to be included in the HRAs.	Natural England have recently been holding a public consultation in relation to a proposed new SPA along the Dorset and Hampshire coast for the common, sandwich and little terns. We note that this pSPA is not included within the list of European sites in the scoping document.	The pSPA will be scoped into the assessment.
Hampshire and Isle of Wight Wildlife Trust	Paras. 2.7-2.9: European sites to be included in the HRAs.	We question the exclusion of the River Itchen SAC from the scoped-in list of European sites, recognising that whilst largely located outside of the 10km buffer established for the study zone, impact upon the Itchen is a significant concern in relation to water supply to new developments. Southern Water supply the eastern half of the New Forest which falls within their 'Hampshire South' Water Resources Zone; much of the water supply for which comes from the River Itchen SAC. Increased development within this zone puts at risk the planned 'sustainability reductions' which will see reduced abstraction from the Itchen in order to ensure that conservation objectives are achieved. We therefore consider it important that, (in the context of water supply), impacts upon the River Itchen SAC are considered during the HRA of relevant local plans.	Agreed. River Itchen SAC will be scoped into the HRA for both authorities' Local Plans in relation to their potential to have adverse effects in relation to water supply/changes in water quantity.
Hampshire and Isle of Wight Wildlife Trust	Mitigation of potential effects of development of water quantity.	Important that local plans encourage adoption of the fullest range of water efficiency measures by new developments; whilst basic measures such as efficient appliances, fixtures and fittings make a valuable contribution, Local Authorities should aspire to see developments in their areas incorporating more substantial solutions such as rainwater harvesting and grey-water recycling. As well as significantly reducing the use of treated drinking water, such interventions can deliver additional benefits for localised water management by reducing volumes of runoff or discharges of waste water from a site.	It is recommended that NFDC and NFNPA take this into account when preparing their Local Plans.
Hampshire and Isle of Wight Wildlife	Table 3.2 Section relating to proposed approach to screening for water quality effects.	Need to consider the potential impacts of private sewerage as well as WwTWs as these are highlighted by the Site Improvement Plan	Noted - the assessment of potential effects of development on water quality will include the potential impacts of private sewerage on New

Consultee	HRA Scoping Report ref.	Summary of comment	LUC response & discussion points
Trust		for New Forest SAC and SPA.	Forest SAC and SPA. Avoidance may be more appropriate than mitigation in light of the conclusions of research document NECR179[117]. This finds that the most effective measures are use of low-P detergents, which are beyond the control of a Local Plan, or chemical precipitation, which is *"not appropriate for widespread use due to personal & environmental safety issues"*. At a HRA stakeholder meeting on 9/8/16, NFDC confirmed that its Local Plan will state that all major allocations must be connected directly to the public mains sewer network. Natural England provided advice subsequent to the meeting which is reflected in the notes below. Research commissioned by Natural England[118] has shown that phosphorus originating from septic tank discharges can move laterally through the soil profile for a distance of 20-30m in a variety of soil types. The study therefore concluded and that the current legislative value of 10 m for the separation of a septic tank soakaway from a watercourse (The Building Regulations, 2000) is probably insufficient to protect that waterbody from P pollution from this source, even where the local hydrology does not provide a shortcut for the delivery of septic tank discharges to water. The HRA screening will therefore assume that, prior to mitigation, likely significant effects on water quality cannot be ruled out where development is not likely to be connected to a public sewer and is within 30 m of a European site. In this regard, it is notable that the Environment Agency will not allow a new discharge from a septic tank or small sewage treatment plant if the property is within 30 m of

[117] May, L. & Woods, H. 2015. A review of the effectiveness of different on-site wastewater treatment systems and their management to reduce phosphorus pollution. Natural England Commissioned Reports, Number 179.
[118] MAY, L., WITHERS, P.J., STRATFORD, C., BOWES, M., ROBINSON, D. & GOZZARD, E. 2015. Development of a risk assessment tool to assess the significance of septic tanks around freshwater SSSIs: Phase 1 – Understanding better the retention of phosphorus in the drainage field. Natural England Commissioned Reports, NECR171.

Consultee	HRA Scoping Report ref.	Summary of comment	LUC response & discussion points
			a public sewer; this distance is multiplied by the number of properties, e.g. if there are 3 properties then the distance will be 3 x 30 metres = 90 metres. Exceptions may be permitted if the Environment Agency judges that connection to a public sewer is not feasible, e.g. because there is a physical barrier in the path of the connection route. Reliance can be placed on the fact that any new discharge to the ground from a septic tank or small sewage treatment plant within 50 metres of a European site or to surface waters within 500 metres of a European site requires a permit from the Environment Agency.[119]
Hampshire and Isle of Wight Wildlife Trust	Table 3.2 Section relating to proposed approach to screening for water quality effects.	Suggest cross-referencing the list of sites listed in Table 3.2 as vulnerable to changes in water quality against Natural England's Site Improvement Plans and including all those with actions for water-dependent features.	European sites listed in the Scoping Report as vulnerable to changes in water quality already takes account of information provided in Natural England's Site Improvement Plans, as set out in Appendix 1. Features identified as under current pressure or potential threat from water pollution do not include those for which Dorset Heaths SPA or New Forest SPA are designated; all other in-scope European sites are identified in Table 3.2 for consideration of water quality effects.
Hampshire and Isle of Wight Wildlife Trust	Other relevant plans and projects.	Natural England is currently holding pre-consultation discussions with regard to the proposed route of the coastal path in Hampshire and on the Isle of Wight as required under the Coastal Access Act (2009). There is the potential for significant areas of previously inaccessible land, that form part of or lie adjacent to European sites, to be opened up for public access. There is the potential for increased recreational pressure and as such significant effects to occur in on parts of the European sites in affected areas. As such, we consider that these proposals and the potential impacts should be included within this HRA	It is accepted that opening up coastal access in Hampshire and the Isle of Wight within or adjacent to European sites could increase recreation pressure on those European sites. The approach to HRA screening set out in Table 3.2 will result in identification of likely significant recreation pressure effects on relevant coastal European sites from the New Forest Local Plans alone, necessitating a mitigation strategy. Provided that the additional recreational pressures arising from the Local Plans are fully mitigated by the Councils' respective mitigation strategies it will not be necessary for HRA screening to consider whether other plans and

[119] Environment Agency. (2015) General binding rules: small sewage discharge to the ground. [Online] Available from: https://www.gov.uk/guidance/general-binding-rules-small-sewage-discharge-to-the-ground

Consultee	HRA Scoping Report ref.	Summary of comment	LUC response & discussion points
		scoping document.	projects could result in an in combination recreation pressure effect. Nevertheless, it is recommended that the Councils consider how measures proposed by the mitigation strategies for their Local Plans can be designed to integrate with likely measures required to mitigate recreation pressure arising from any specific proposals for new coastal Rights of Way.
New Forest NPA	Several references throughout the scoping document (e.g. paras. 2.13, 2.21) to "open space" provision as a form of habitat mitigation.	The report may need to clarify the use of this term, as the existing planning policies for both the National Park and the District require the provision of public open space and habitat mitigation measures. In short, the requirement for development to provide public open space is independent of any requirement for habitat mitigation.	This will be clarified in future HRA documents.
New Forest NPA	Page 11 Text box on New Forest NPA's Development Standards SPD: Summary of key features of the NPA's existing mitigation package contained in its Development Standards SPD.	The summary is slightly misleading. There is no reference, for example, to "public open space" in Annex 5 of the NPA's Development Standards SPD – a point emphasised by the fact that the SPD has two separate chapters on open space and habitat mitigation. The separate nature of the mitigation and open space requirements is highlighted in paragraph 6.3.6 of the SPD which clarifies that, *"Policy DP3 of the Core Strategy also requires new development to contribute towards the provision of public open space in the National Park. It should be noted that this open space contribution – to be directed towards providing open space, sports pitches and children's play areas – is quite separate from mitigation for the impact of new development on protected habitats. The habitat mitigation contribution does not duplicate other open space contributions".*	The summary of the NPA's existing mitigation package will be amended in future HRA documents to reflect the measures described in Annex 5 of the Development Standards SPD, namely access management; education and awareness of the impacts; and promoting and enhancing alternative recreation areas.
New Forest NPA	References to New Forest NPA Core Strategy Policy CP1 on pages 11 and 17 of HRA Scoping Report.	Policy CP1 in the Authority's adopted Core Strategy reflects the Habitats Regulations and applies to all development throughout the National Park. The HRA undertaken for the Core Strategy by Scott Wilson in 2009/10 commented that, *"All development will need to*	The extract from the 2009/10 HRA of the New Forest NPA Core Strategy appears to suggest that all types of impacts on European sites were ruled out provided that developments were more than 400 m from a European site. We have not placed blanket reliance on the previous

Consultee	HRA Scoping Report ref.	Summary of comment	LUC response & discussion points
		conform with Policy CP1, and thus development should be sited so as to avoid any adverse impacts on internationally designated sites." Mention in Policy CP1 to housing development within 400 metres of the SPA reflected the conclusions of the HRA at the time and the low quantum of development proposed in the Core Strategy. Given the likelihood of an increase in the level of development in the National Park to be delivered through this Local Plan, the approach taken to habitat mitigation from all development in the National Park will need to be re-assessed as part of the Local Plan Review. The HRA needs to look forward at the new planning context within the National Park, rather than referring back to existing policy positions.	position of Policy CP1; based on the evidence outlined in the Scoping Report, the proposed approach to HRA screening set out in Table 3.2 of the HRA Scoping Report only uses a distance of 400 m in relation to 'disturbance and other urban edge effects from construction or occupation of buildings' such as the visual presence of buildings, noise, light pollution and pet predation. Natural England's comments on the HRA Scoping Report do not object to the use of a 400 m assumption in this context. It is suggested that the justification text in Table 3.2 be amended to read: *"A distance of 400 m was chosen based on the acceptance of this distance by Natural England in the HRA of New Forest NPA's Core Strategy and the fact that similar distance buffers have been used elsewhere when considering the potential for effects of residential development on ground nesting birds."* Natural England confirmed at an HRA stakeholder meeting on 9/8/16 that it is happy with the use of a 400 m distance when screening for potential 'disturbance and other urban edge effects from construction or occupation of buildings' on heathland sites.
New Forest NPA	Para. 2.25 Key issues for the HRAs of the new Local Plans	The comments made in Paragraph 2.25 that: (i) the existing mitigation package was prepared in the context of the lower housing figure in the adopted Local Plan; and that (ii) it will be necessary for the HRA to include an assessment of the adequacy of the mitigation provided by the SPD in light of higher housing numbers; applies equally to the NPA's Habitat Mitigation Scheme as well as NFDC's Mitigation Strategy.	Agreed. The HRA of the New Forest NPA Local Plan will also include an assessment of the adequacy of the mitigation provided by the NPA's latest Habitat Mitigation Scheme, including amendments in light of higher housing numbers.

Consultation on 9 August 2016 HRA Discussion Document

Stakeholder comment	LUC response
Hampshire & Isle of Wight Wildlife Trust – HIWWT (letter dated 31/8/16)	
Potential strategic housing and mixed use development sites The Wildlife Trust owns and manages several sites in and around the district, some in close proximity to potential development sites. Whilst some of these sites do not form part of the network of designated sites, they do support a selection of designated bird species and as such should be treated as part of the supporting habitat that is functionally linked to the SPA. In addition, accessible parts of these sites will be subjected to increased recreational pressure, yet there are no mechanisms in place to help us manage these impacts. As mentioned in the meeting of 9th August, we would welcome the opportunity to discuss with the District Council a mechanism whereby partnership working could help address the increase in recreational pressure on our sites that will likely arise as a result of this plan review. Consideration should be given to the existing usage of the green belt sites for recreation. It is acknowledged that some of these sites will have no public access, whereas others may have established informal access. The development of these sites could displace existing users onto the designated sites.	As set out in the HRA Discussion Document (9/8/16), the HRA will assess the potential for development outside of European site boundaries to result in loss of or damage to habitats that support the designated bird populations of European sites by reference to Hampshire Biodiversity Information Centre (HBIC) Desk Study Reports commissioned by NFDC. These habitats may be within or outside of sites managed by the Wildlife Trust. NFDC has indicated that all new housing development within the District will be required to contribute to SANG provision and access management and monitoring unless project-specific Appropriate Assessment demonstrates that this is not necessary. This should adequately mitigate additional recreational pressure regardless of whether it arises at supporting habitat or within European sites. However, LUC does not believe that there is any information to suggest that increased recreation pressure on supporting habitat beyond European site boundaries could have a significant effect on any European site and therefore, no separate assessment will be made of this potential effect; this approach has been agreed with Natural England[120]. The HIWWT request for partnership working has been forwarded to NFDC and NFNPA for consideration as this could nevertheless help to mitigate adverse effects on biodiversity sites which do not have a European designation.
Direct loss or physical damage Paragraph 4.5 summarises the features of interest that will be considered under the topic, which includes "habitats on which designated species rely or direct mortality of designated species". During the meeting of 9th August we mentioned that whilst carrying out survey work for the BTO Bird Atlas[121] a Trust staff member recorded reasonable numbers of woodlark Lullula arborea in cereal fields around Bransgore. The sightings were all made from footpaths or roads and the area was noted as being on the south-west side of Bransgore and west of Godwinscroft. This data is not available in a separate report but was submitted to inform the BTO Atlas, unfortunately the resolution of records within the Atlas is not of sufficient detail to identify these sites. As we mentioned in the meeting of 9th August, the wintering locations of woodlark are often documented as being similar to those during the breeding	A revised approach to assessing the potential for loss of or damage to supporting habitat for designated bird populations of European sites will be forwarded to Natural England in due course, along with a pilot assessment for one potential development location. In relation to potential increases in recreation pressure on sites outside of Avon Valley European site boundaries, LUC does not believe that there is any information to suggest that this could be capable of having a significant effect on any European site; this has been agreed with Natural England[123]. However, the HIWWT suggestion of contributions to ranger/visitor education at this European site has been forwarded to NFDC for consideration.

[120] Email dated 4 November 2016

[121] Balmer, D.E, Gillings, S., Caffrey, B.J., Swann, R.L., Downie, I.S. & Fuller, R.J. 2013. Bird Atlas2007 – 11: the breeding and wintering birds of Britain and Ireland. BTO Books, Thetford.

Stakeholder comment	LUC response
season, which is because birds return to their breeding sites in late winter/early spring to set up territories; at which point they are more obvious since they start to sing. The majority of winter records for the Hampshire Bird Atlas[122] refer to birds back on their breeding grounds in February, outside of this period there are relatively few winter records, which is surprising given the breeding population in the Forest. As such it is possible that important wintering sites/habitats that the species relies on in winter could be present on or adjacent to some sites identified for potential development in the Local Plan Review document. We consider that further targeted wintering surveys will be required through the period November to January in order to identify and protect important wintering areas for this species. Table 4.1 Habitat preferences of designated bird species – broad habitat types of potential importance for Black-tailed godwit are detailed as coastal wetlands, which is not strictly accurate. As the winter progresses, and depending on rainfall levels, birds tend to move from coastal locations to wet grassland. The largest concentrations of birds occur on the Beaulieu Estuary and between the Lymington River and Hurst, but also around the Avon Valley, downstream of Ringwood, between Sopley and Bisterne and around Blashford. Similarly, for nightjar the broad habitat types are detailed as heathland and woodland, but nightjar are known to forage up to 7 km from their breeding sites and have been recorded over open pasture. Therefore consideration should also be given to how they might be using supporting habitats outside of the SPA, particularly where proposed sites are located near to locations with a high density of breeding nightjars. Paragraph 4.1, point 4 – data hosted on the Solent Forum website is not the most up-to-date information relating to waders and brent geese. Updated GIS and raw data would need to be purchased from HBIC if it hasn't already been sourced. The Wildlife Trust is currently working in partnership with other organisations to deliver a new and significantly updated Solent Wader and Brent Goose Strategy. This new strategy will include the most up-to-date survey data and adopt a new approach that seeks to remove areas of uncertainty that exist in the current document, whilst protecting the primary network of sites used by waders and brent geese across the Solent. We are in the process of collating records that have been gathered since the 2010 strategy document, which will provide more up-to-date information about the current usage of coastal areas by waders and brent geese. We are currently looking for organisations to support the project and would be happy to discuss the proposals in detail with LUC and NFDC.	

[123] Email dated 4 November 2016

[122] Eyre, J. (Eds) (2015). Hampshire Bird Atlas 2007 – 2012. Hampshire Ornithological Society, Hampshire.

Stakeholder comment	LUC response
Interim conclusions and recommendations Paragraph 4.30 and 4.31 - we consider that contributions to ranger/visitor education should form part of the mitigation package in relation to the Avon Valley European designated sites. Whilst the designated sites themselves may not be easily accessible, areas of supporting habitat linked to the designated sites could be and therefore recreational disturbance could still be an issue in these areas. Areas could be ground-truthed by the recreation mitigation officer or a desk top study backed up by a site visit could be used to assess the degree of likely impact.	
Changes in water quality Paragraph 4.43 - For site B, the maximum housing number given to infrastructure providers was more than 300 houses less than the number contained in the draft local plan – if higher numbers are indeed envisaged, infrastructure providers should be asked for fresh comment. (Similarly numbers for sites F, G, H, I and L were all lower than those indicated in the plan, although by lesser amounts than for site B). Where issues were raised by the infrastructure providers these relate mainly to capacity of the network (particularly in relation to storm overflows). Whilst these infrequent pollution events are a concern and we welcome the measures to deal with this as set out in the Local Plan, it is unclear whether the providers have also considered the impacts of treated discharges, experienced continually, from WwTW upon the receiving watercourses. In relation to Phosphate pollution in particular, as well as WFD targets for all WFD waterbodies, Common Standards Monitoring Guidance targets are being put in place for SAC rivers by NE & EA, and these should also be considered in the assessment. This is to some extent dealt within s4.46 which states that 'The Environment Agency's environmental permitting regime should ensure that any changes to the volume or quantity of discharges from WwTWs will not have an adverse effect on any European site'. However, it would be useful if an assessment of headroom (for example, current phosphate concentration in effluent shown as a percentage of consented levels, perhaps with an accompanying estimate of the number of additional residences that could be accommodated within that headroom) could be provided by the Water Companies or Environment Agency to demonstrate that this aspect has been considered up-front. *Interim conclusions and recommendations* Paragraph 4.46 - We are pleased to see the assumption that all development sites identified in the draft Local Plan Part 1 will be connected to the public sewer network and will not require septic tanks or PTPs. Paragraph 4.47 - We welcome the recommendation that SuDS should be implemented to deal with surface run-off from the strategic development sites. Consideration should be given to the specific pollutants likely to be contained	LUC has requested that NFDC approach the water companies and Environment Agency to confirm that the final housing numbers to be included in the Local Plan do not present any additional water supply or water quality issues to those already identified in the HRA Discussion Document. It was further requested that NFDC request a schedule from the appropriate body setting out for each WwTW that serves New Forest District or New Forest National Park: - the main settlements served; - the number of additional dwellings that could be accommodated within existing discharge consents; and - any existing plans for or technical barriers to expansion of the existing capacity/headroom. HRA policy recommendation re. the potential effects of surface run-off is revised to read (changes underlined): - *"either implement an appropriate series of Sustainable Drainage Systems (SuDS) components to reduce the risk that pollutants <u>likely to be contained in surface run-off</u> will enter watercourses via runoff from developed sites; or* - *demonstrate that any surface run-off from the development will not adversely affect any of the European sites listed above."*

Stakeholder comment	LUC response
in surface run-off, and how SuDS features could be designed to be most effective at entraining those particular pollutants.	
Natural England (emails to LUC during August 2016)	
Potential loss of supporting habitat to Avon Valley SPA and Ramsar site qualifying bird populations There is not really any suitable habitat for the SPA species (Bewick's Swan and Gadwall) outside the Avon Valley SPA, apart from a few fields on the west side of the valley at Harbridge (a bit north of Ringwood), that a Bewick's Swan has been using in some recent winters.	HRA screening will assume that supporting habitat for Avon Valley SPA and Ramsar site qualifying bird populations only exists in the Harbridge area to the west of the European site and north of Ringwood.
Water quality of Avon We just want to flag to you that we understand that discussions are ongoing between Wiltshire and NE around nutrient management (phosphates) in the Avon. If we hear any more we will let you know, but for the meantime, please refer to the Nutrient Management Plan already in place to deal with impacts.	Noted. The Nutrient Management Plan is already referenced in the HRA Scoping Report.
Water quality of Solent The Partnership for Urban South Hampshire (PUSH) has recently appointed AMEC Foster Wheeler to carry out a review and update of the South Hampshire Integrated Water Management Strategy (IWMS). This will take a closer look at the environmental capacity, the proposed growth in the PUSH area and mitigation options. This IWMS should be finished by March 2017 at the latest and maybe earlier. NFDC will need to recognise that there is an issue and that it is being investigated. In the meantime the LP should include a policy to adhere to the mitigation that the IWMS will recommend. We are expecting a draft report sooner. I would advise that someone from the NFDC contacts David Bibby from Test Valley for an update on the report in December.	Natural England advice has been forwarded to NFDC and NFNPA for consideration of the recommendation re. Local Plan policy. HRA screening will reference any emerging findings that are available from the PUSH IWMS.
Water quality of Solent I have attached the guidance note we issued last Autumn *("Addressing the needs of housing growth and protecting the Marine Environment in the Solent area, Environment Agency and Natural England, October 2015"*). I am awaiting an update from a colleague and will let you know if there is any more recent work we can share with you.	Noted. The guidance note is already referenced in the HRA Scoping Report.
Fawley development We understand that the proposer of this site has been advised by the EA to check that Ashlett Creek waste water treatment plant would have capacity to	Site U. Former Fawley Power Station will be added to the list of strategic development sites where potential water quality issues have been flagged through consultation.

Stakeholder comment	LUC response
deal with the discharges from the development proposed.	
Increased traffic using Roger Penny Way (B3078) across New Forest Whilst we haven't responded formally to the NFDC sites consultation, the responsible officer for the New Forest has raised initial concerns with me about the impact that increased housing numbers in Fordingbridge could have on the amount of traffic using the Roger Penny Way across the Forest, especially as there is already a high collision risk along that road. She is particularly concerned that the increase in traffic using the road could result in it being unsafe for grazing animals, with a knock on effect on the need to fence, and thus changing the grazing pattern in the Forest, having large implications for management of the forest. She has similar concerns about the roads near Hordle.	'Traffic collision risk' will be added to the types of potential effect of the NFDC and NFNPA Local Plans identified in the joint HRA Scoping Report. LUC has requested that NFDC quantifies through its transport modelling work the increase in Annual Average Daily Traffic (AADT) that is expected in the Local Plan period on roads passing through the New Forest European sites under 'do nothing' (as a result of committed development in the District and surrounding areas) and 'do something' (do nothing + Local Pan development proposals) scenarios. In the absence of any other benchmark, HRA screening will assume that likely significant effects due to traffic collision risk cannot be ruled out where transport modelling identifies that under a 'do something' scenario, a road running through the New Forest European designations would exceed a threshold level of road traffic which would not be exceeded under a 'do nothing' scenario. In the absence of any directly applicable guidance, the threshold will be set at 8,000 AADT (the figure provided by the Design Manual for Roads and Bridges, volume 11, to indicate a scale of traffic flows on a new road that would begin to result in moderate severance of a community). Appropriate Assessment would then be required to assess traffic collision risk on that road segment in more detail, taking account of factors such as local presence of habitats where grazing animals are likely to be used for conservation management and traffic speed. This approach has been agreed with Natural England[124].
Private sewerage systems Whilst I have been able to locate NECR171 entitled "Development of a risk assessment tool to assess the significance of septic tanks around freshwater SSSIs: Phase 1 – Understanding better the retention of phosphorus in the drainage field" on our publications page, I have not been able to find the report referred to on page 5 of your discussion document. I have made contact with a member of our water team and will let you know if we have a date for when that report will be publicly available. In the absence of further evidence on the matter I would refer you to any recommendations made in NECR171 regarding buffer distances. You can also rely on the need for EA to permit such discharges when in close proximity to designated sites.	Avoidance may be more appropriate than mitigation in light of the conclusions of research document NECR179[125]. This finds that the most effective measures are use of low-phosphorus detergents, which are beyond the control of a Local Plan, or chemical precipitation, which is *"not appropriate for widespread use due to personal & environmental safety issues"*. At a HRA stakeholder meeting on 9/8/16, NFDC confirmed that its Local Plan will state that all major allocations must be connected directly to the public mains sewer network. Natural England provided advice subsequent to the meeting which is reflected in the notes below. Research commissioned by Natural England[126] has shown that phosphorus originating from septic tank discharges can move laterally through the soil profile for a distance of 20-30 m in a variety of soil types. The study therefore concluded and that the

[124] Email dated 4 November 2016

[125] May, L. & Woods, H. 2015. A review of the effectiveness of different on-site wastewater treatment systems and their management to reduce phosphorus pollution. Natural England Commissioned Reports, Number 179.

[126] MAY, L., WITHERS, P.J., STRATFORD, C., BOWES, M., ROBINSON, D. & GOZZARD, E. 2015. Development of a risk assessment tool to assess the significance of septic tanks around freshwater SSSIs: Phase 1 – Understanding better the retention of phosphorus in the drainage field. Natural England Commissioned Reports, NECR171.

Stakeholder comment	LUC response
	current legislative value of 10 m for the separation of a septic tank soakaway from a watercourse[127] is probably insufficient to protect that waterbody from phosphorus pollution from this source, even where the local hydrology does not provide a shortcut for the delivery of septic tank discharges to water. The HRA screening will therefore assume that, prior to mitigation, likely significant effects on water quality cannot be ruled out where development is not likely to be connected to a public sewer and is within 30 m of a European site. In this regard, it is notable that the Environment Agency will not allow a new discharge from a septic tank or small sewage treatment plant if the property is within 30 m of a public sewer; this distance is multiplied by the number of properties, e.g. if there are 3 properties then the distance will be 3 x 30 metres = 90 metres. Exceptions may be permitted if the Environment Agency judges that connection to a public sewer is not feasible, e.g. because there is a physical barrier in the path of the connection route. The HRA screening will rely on mitigation provided by the fact that any new discharge to the ground from a septic tank or small sewage treatment plant within 50 metres of a European site or to surface waters within 500 metres of a European site requires a permit from the Environment Agency[128]; an approach agreed with Natural England[129]. This will allow likely significant effects to be ruled out post-mitigation.
New Forest NPA (email to LUC 23/8/16)	
Welcome the aim of the discussion document in providing a link between the HRA Scoping Report (April 2016) and the full Habitats Regulations Assessment (HRA) that will be undertaken for the Submission draft Local Plan in 2017.	Noted.
Chapter 3 focuses on the proposed development sites in the district as set out in the Council's consultation draft Local Plan. These amount to around 7,000 additional greenfield dwellings on strategic sites in the district. To put this into context, within the New Forest National Park the Authority is looking through its own Local Plan review at a target of around 700 – 800 additional dwellings over the Plan period (2016 – 2036), with around 170 dwellings on greenfield sites within the Park. None of the proposed sites amount to more than 100 dwellings.	Noted.
Chapter 4 highlights potential effects on European sites and is helpful in taking things forward from the Scoping Report to the full HRA due in 2017. In terms of developing an equivalent discussion document for the NPA Local Plan, as you will be aware the Authority's existing mitigation measures are set out in	Noted.

[127] The Building Regulations, 2000

[128] Environment Agency. (2015) General binding rules: small sewage discharge to the ground. [Online] Available from: https://www.gov.uk/guidance/general-binding-rules-small-sewage-discharge-to-the-ground

[129] Email dated 4 November 2016

Stakeholder comment	LUC response
our Development Standards SPD which will be reviewed as part of our own Local Plan review. In addition, the Authority works with other planning authorities in the Solent to seek financial contributions from residential development to mitigate impacts on the Solent habitats.	
Note the interim conclusions and recommendations in relation to changes in air quality (paragraphs 4.16 – 4.17). For LUC's information, the NPA has not commissioned any transport modelling work for its own Local Plan due to the low level of development.	Noted.
Note the interim conclusion and recommendations in relation to changes in water quality (paragraphs 4.46 – 4.47). For LUC's information, the NPA has not formally consulted the water companies and the Environment Agency, but will do so as part of the upcoming consultation on the Authority's own draft Local Plan, due to commence in October 2016.	Noted.
The Discussion Document outlines in Paragraph 4.29 that "…it is not a realistic prospect to create new accessible natural greenspace of a scale and character that would effectively deflect all potential visits away from the New Forest or Solent coast." It is been generally acknowledged that mitigation in the New Forest needs to include a range of measures, including new SANG areas, ranger provision and education. It is noted that the majority of the mitigation proposed in Table 4.2 for each of the strategic development sites appears to heavily rely on new accessible natural greenspace provision. The HRA will therefore need to consider how effective the use of new accessible greenspace will be in the New Forest.	The HRA of the NFDC Local Plan will consider this.
The total scale of proposed housing provision (10,040 dwellings, plus further potential sites at Eling and Fawley Power Station) is substantially higher than in the current Core Strategy. We are aware that New Forest District Council has sought confirmation that this scale of development can be effectively mitigated, and the HRA will need to clarify that this is indeed the case.	The HRA of the NFDC Local Plan will clarify this

Appendix 6

Potential for loss of supporting bird habitat at strategic sites

Site ID	SS1	Site Name	North of Totton	Plan Sub-area	Totton and the Waterside

Review of aerial imagery
Field enclosures comprised of pasture may provide potential feeding resources for geese and gull species and may also provide feeding opportunities for lapwing. Marshy/wet grasslands / mire appear to occur in field enclosures in the vicinity of Bog plantation and may provide suitable nesting conditions for nesting wader species including curlew and lapwing, although their relatively small size, and lack of openness due to woodland proximity is likely to reduce suitability for these species. Woodland habitats are considered unlikely to be of importance for foraging heathland species due to distance from New Forest heathlands, setting within the landscape, and abundance of similar habitat types within the wider landscape.

Consideration of HBIC Data	
Priority Habitat Affected?	Yes - Lowland mixed deciduous woodland. This habitat type, given setting in landscape and distance from heathland habitat to the west (c.1.5km) is unlikely to be of importance to any of the SPA/Ramsar heathland or wetland bird species.
Relevant HBIC SPA/Ramsar bird records within allocation?	No - although numerous records of such species close to the east of the site at Testwood Lakes.
Solent Wader and Brent Goose Strategy?	No.
Undesignated Solent Strategy Site?	No.
HBIC Potential Wildlife Site?	Kilnyard Copse comprises deciduous woodland unlikely to support the target bird species due to geographic isolation from heathland/woodland mosaic associated with the New Forest Annex 1 birds. Bog Plantation appears to support areas of marshy grassland/mire within the south of the site but the absence of open water and proximity of
Statutory wildlife designation?	No.
Non-statutory wildlife designation?	No - but proximity of Testwood Lakes to east may increase likelihood of geese and gulls utilising pasture within allocation.

Consideration of Natural England and National Park data	
Breeding Wader Survey - records of target wader species?	No - cross checked against listed records outside of the HLS survey area
Nightjar Survey	No - cross checked against listed records outside of the HLS survey area
Dartford Warbler	No - cross checked against listed records outside of the HLS survey area

Conclusion
Suitability of allocation for coastal SPA birds is greatly reduced by the small size of individual field enclosures and the presence of negative edge factors. Pasture within the allocation may be utilised by geese, lapwing and dunlin on occasion for foraging but unlikely to support notable numbers or be of importance for maintaining populations of SPA. Small areas of potential marshy grass/mire habitat in the vicinity of Bog Plantation has potential to provide suitable habitat for nesting lapwing, curlew and

dunlin but given small extent of habitat parcels, lack of openness and proximity of woodlands and trees, together with an absence of historic records, this habitat is unlikely to be important for these species. In summary, habitats within the allocation are unlikely to represent an important offsite foraging habitat upon which these birds rely or support notable numbers of breeding waders which contribute to the maintenance of the SPA/Ramsar sites.
Further site level survey required?
No further survey required.

Site ID	SS 2	Site Name	West of Marchwood	Plan Sub-area	Totton and the Waterside

Review of aerial imagery
Northern part of site comprises arable fields. Central part and majority of site comprises active mineral workings and historic imagery suggests regular disturbance and extent of open water and ephemeral habitat has reduced considerably compared to historic extent. Southern part of site comprises a large area of pasture which supports a solar farm and is therefore unsuitable for supporting SPA birds. Pastoral field enclosures in south west and north west are thinly shaped and therefore likely to be of low suitability for SPA birds due to proximity of edge features. Open water and adjacent areas of wet, bare and ephemeral habitat may provide suitable habitat for supporting SPA birds including during winter foraging (dunlin, curlew, lapwing) and summer (gull species and ringed plover).

Consideration of HBIC Data	
Priority Habitat Affected?	No
Relevant HBIC SPA/Ramsar bird records within allocation?	Yes- records of 250 lapwing on site.
Solent Wader and Brent Goose Strategy?	No
Undesignated Solent Strategy Site?	No
HBIC Potential Wildlife Site?	Yes - Tavells Farm Gravel Pits. HBIC report states that 2006 survey showed active gravel workings. 2013 aerial photos show eastern pits now with water and western pits still active. Potential wildlife value, especially for birds. Not identified as a priority area for survey.
Statutory wildlife designation?	No
Non-statutory wildlife designation?	No - but several Copse SINCs located adjacent to SW boundary

Consideration of Natural England and National Park data	
Breeding Wader Survey - records of target wader species?	No - cross checked against listed records outside of the HLS survey area
Nightjar Survey	No - cross checked against listed records outside of the HLS survey area
Dartford Warbler	No - cross checked against listed records outside of the HLS survey area

Conclusion
The majority of the site is unsuitable for SPA birds due to the current land use (including solar farm and active minerals site) and/or the small size of individual field enclosures. In addition, much of this site has been subject to ongoing change and disturbance as part of active mineral workings and as a result the extent of habitat with potential to support SPA birds as indicated by historic maps, including open water and marshy ground is now significantly reduced. Nevertheless, the site is located close to Solent SPA/Ramsar and wetland habitats still occur within the site and the open water and ephemeral habitat of the site are such that it has potential to support foraging and breeding SPA birds, albeit in light of the reasons above, not in numbers considered significant. Furthermore, this site allocation is not recognised as being important by the SWBGS. Therefore, for the reasons

provided above, this site is not considered to be important in maintaining SPA bird populations either alone or in-combination.
Further site level survey required?
No further survey required

Site ID	SS 3	Site Name	North of Marchwood	Plan Sub-area	Totton and the Waterside

Review of aerial imagery
Site is located immediately to south of Solent SPA and comprises a number of relatively small field enclosures formed of pastoral grassland interspersed and enclosed by prominent edge features including treelines and woodlands which are likely to significantly reduce suitability for SPA wader species.

Consideration of HBIC Data	
Priority Habitat Affected?	Yes - northern part of site within SINC designation supports lowland meadow. North west part of site within the potential wildlife sites of Slowhill Copse (east and west) supports woodland habitat.
Relevant HBIC SPA/Ramsar bird records within allocation?	No
Solent Wader and Brent Goose Strategy?	No - but salt marsh located close to NW of site is included in strategy
Undesignated Solent Strategy Site?	No
HBIC Potential Wildlife Site?	Yes - Slowhill Copse (East) and Slowhill Copse (West) support woodland in the northwest part of the site.
Statutory wildlife designation?	No - but adjacent to Solent and Southampton Water SPA/Ramsar and Eling Bury Water SSSI
Non-statutory wildlife designation?	Yes- the northern part of site is a SINC (Land at Cork's Farm, Marchwood) designated for coastal grassland

Consideration of Natural England and National Park data	
Breeding Wader Survey - records of target wader species?	No relevant data identified
Nightjar Survey	No relevant data identified
Dartford Warbler	No relevant data identified

Conclusion
Despite the sites proximity to the Solent SPA, the small size of individual field enclosures and presence of negative edge factors is likely to significantly reduce suitability for SPA birds by reducing the openness they typically prefer for offsite foraging. Distance from New Forest SPA and severance from site by major roads and existing urban areas results in negligible importance for New Forest SPA species.

Further site level survey required?
No further survey required

Site ID	SS 4	Site Name	The former Fawley Power Station	Plan Sub-area	Totton and the Waterside

Review of aerial imagery
Site located adjacent to Solent SPA and supports large areas of bare ground where public access is prevented. The bare ground may support a range of ephemeral, stony or muddy habitats suitable for foraging birds from adjacent Solent SPA such as dunlin, curlew, redshank and lapwing, whilst stony ground may provide suitable habitat for nesting Mediterranean gull and black-headed gull.

Consideration of HBIC Data	
Priority Habitat Affected?	Yes - Lowland mixed woodland occurs in NW of site, and coastal floodplain grazing marsh in SE.
Relevant HBIC SPA/Ramsar bird records within allocation?	Yes- records of a single black-head grebe at Grid Ref. SU4702. Numerous records occur in close proximity to the site associated with coastal habitat.
Solent Wader and Brent Goose Strategy?	Yes – part of the southeast corner is included in the SWBGS as a primary support area (ref. NF156)
Undesignated Solent Strategy Site?	No
HBIC Potential Wildlife Site?	Yes - HBIC reports identifies large areas of potential acid or coastal grassland within the site.
Statutory wildlife designation?	No - SSSI adjacent to east of site
Non-statutory wildlife designation?	Yes - Semi-improved coastal grassland adjacent to SSSI with Notable Species Bembecia ichneumoniformis [Nationally scarce], Polypogon monspeliensis [Nationally Scarce]. Close proximity to Tom Tiddlers SINC to south of site which supports reedbed, grassland and scrub habitats.

Consideration of Natural England and National Park data	
Breeding Wader Survey - records of target wader species?	No relevant data identified
Nightjar Survey	No relevant data identified
Dartford Warbler	No relevant data identified

Conclusion
Given the sites proximity to the Solent SPA, its lack of existing public disturbance and the presence of large areas of open ground which may provide suitable foraging and breeding habitat for SPA birds, there is potential for open areas of grassland to support qualifying bird species of Solent and Southampton Water SPA/Ramsar, which in combination with other site allocations may contribute to maintaining the populations of the SPA/Ramsar species. There is also potential for in-combination effects together with site allocation SP25 (land adjacent to Former Fawley Power Station) specified in the New Forest National Park Authority Local Plan, which is immediately adjacent to the site and which also occupies part of the SWBGS site NF156. Given that the majority of the site is unsuitable for such birds, and is located close to Tom Tiddlers SINC and coastal habitat, if mitigation was required, it would likely be possible to provide appropriate mitigation within the site boundary, or through provision of strategic site enhancement in close proximity, if further survey identified

such a need.
Further site level survey required?
No further survey required for purposes of plan because the size of site relative to areas of potential suitability for qualifying bird species provides sufficient certainty that any mitigation requirements would be feasible and could be delivered within the site. Nevertheless, wintering and breeding bird surveys will be required as part of project level HRA to inform site masterplanning to provide certainty that in combination/cumulative adverse effects on integrity will be avoided.

Site ID	SS 5	Site Name	South-west of Lymington	Plan Sub-area	South Coastal Towns

Review of aerial imagery
The site comprises a network of pastoral field enclosures. Field sizes are relatively small and are typically interspersed and enclosed by landscape features such as treelines and woodlands which are likely to reduce their feel of openness and subsequent suitability for SPA bird species. In addition, the site is bordered to east by urban edge of Lymington and dissected by main roads running north-south and east-west.

Consideration of HBIC Data	
Priority Habitat Affected?	No
Relevant HBIC SPA/Ramsar bird records within allocation?	Historic records of 1074 Dunlin and 175 black-tailed godwit, 73 grey plover, 14 greenshank, 970 brent geese, 99 redshank, 467 lapwing, and 285 curlew in grid ref. SZ3194 but detailed resolution not available.
Solent Wader and Brent Goose Strategy?	No
Undesignated Solent Strategy Site?	No
HBIC Potential Wildlife Site?	No - Crewkerne copse located adjacent to north of site.
Statutory wildlife designation?	No
Non-statutory wildlife designation?	No - Newbridge Copse meadow and Newbridge Copse located adjacent to west of Site.

Consideration of Natural England and National Park data	
Breeding Wader Survey - records of target wader species?	No relevant data identified
Nightjar Survey	No relevant data identified
Dartford Warbler	No relevant data identified

Conclusion
Small field sizes and presence of negative factors including prominent edge features, proximity to urban area and distance from SPA of >1km is likely to significantly reduce suitability for SPA birds. Nevertheless, records of large numbers of black-tailed godwit, curlew and dunlin occur in the vicinity and therefore the fields may be of some importance for these species. Furthermore, this site allocation is not recognised as being important by the SWBGS. Therefore, for the reasons provided above, this site is not considered to be important in maintaining SPA bird populations either alone or in-combination.

Further site level survey required?
No further survey required

Site ID	SS 6	Site Name	South of Lymington	Plan Sub-area	South Coastal Towns

Review of aerial imagery
The site is comprised of relatively small pastoral field enclosures interspersed and surrounded by woodlands and tree lines. The site is located <1km from the Solent and Southampton Water SPA/Ramsar and may provide suitable foraging habitat for waders and gull species. Nevertheless, the site is largely enclosed by residential development. These factors are likely to limit the feeling of openness and suitability for SPA/Ramsar bird species.

Consideration of HBIC Data	
Priority Habitat Affected?	No
Relevant HBIC SPA/Ramsar bird records within allocation?	Historic records of 1074 Dunlin and 175 black-tailed godwit, 73 grey plover, 14 greenshank, 970 brent geese, 99 redshank, 467 lapwing, and 285 curlew in grid ref. SZ3194 but detailed resolution not available.
Solent Wader and Brent Goose Strategy?	No
Undesignated Solent Strategy Site?	No
HBIC Potential Wildlife Site?	No
Statutory wildlife designation?	No
Non-statutory wildlife designation?	No

Consideration of Natural England and National Park data	
Breeding Wader Survey - records of target wader species?	No relevant data identified
Nightjar Survey	No relevant data identified
Dartford Warbler	No relevant data identified

Conclusion
Small field sizes and presence of negative factors including prominent edge features, proximity to urban area and distance from SPA of >1km is likely to significantly reduce suitability for SPA birds. Nevertheless, records of large numbers of black-tailed godwit, curlew and dunlin occur in the vicinity and therefore the fields may be of some importance for these species. Furthermore, this site allocation is not recognised as being important by the SWBGS. Therefore, for the reasons provided above, this site is not considered to be important in maintaining SPA bird populations either alone or in-combination.

Further site level survey required?
No further survey required

Site ID	SS 7	Site Name	North-east of Milford- on-Sea	Plan Sub-area	South Coastal Towns

Review of aerial imagery
The site comprises a network of pastoral field enclosures. Field sizes are relatively small and are typically interspersed and enclosed by landscape features such as treelines and woodlands which are likely to reduce their feel of openness and subsequent suitability for coastal SPA bird species. The site is located over 1.5km from the western end of the Solent SPA and is separated from the SPA by the urban area of Milford-on-Sea. As a result the likelihood of the site being of importance for SPA birds is low.

Consideration of HBIC Data	
Priority Habitat Affected?	No
Relevant HBIC SPA/Ramsar bird records within allocation?	Historic records of curlew (max count 19) in wider area (grid ref SZ2892) but records lack detailed location reference.
Solent Wader and Brent Goose Strategy?	No
Undesignated Solent Strategy Site?	No
HBIC Potential Wildlife Site?	No
Statutory wildlife designation?	No
Non-statutory wildlife designation?	No

Consideration of Natural England and National Park data	
Breeding Wader Survey - records of target wader species?	No relevant data identified
Nightjar Survey	No relevant data identified
Dartford Warbler	No relevant data identified

Conclusion
The site is likely to be of low importance for SPA birds due to habitat severance and distance from SPA and presence of negative factors including small field size, presence of edge factors such as woodland and urban areas, and irregular shape of field enclosures which reduces distance to edges.

Further site level survey required?
No further survey required

Site ID	SS 8	Site Name	Central Hordle	Plan Sub-area	South Coastal Towns

Review of aerial imagery
The site comprises relatively small field enclosures of irregular shape, which significantly reduces the distance to negative edge factors such as woodlands. In addition, much of the site is enclosed by the urban area of Hordle. Furthermore, the site is located c.4km from the Solent SPA and New Forest SPA.

Consideration of HBIC Data	
Priority Habitat Affected?	Lowland mixed woodland located in NW of site but not affected by development
Relevant HBIC SPA/Ramsar bird records within allocation?	No
Solent Wader and Brent Goose Strategy?	No
Undesignated Solent Strategy Site?	No
HBIC Potential Wildlife Site?	Yes - Hordle Wood located in NW of site but not directly affected.
Statutory wildlife designation?	No
Non-statutory wildlife designation?	No - Breakhill Copse located adjacent to west of site

Consideration of Natural England and National Park data	
Breeding Wader Survey - records of target wader species?	No relevant data identified
Nightjar Survey	No relevant data identified
Dartford Warbler	No relevant data identified

Conclusion
Site is likely to be of low importance for SPA birds due to its location within the urban area of Hordle, small size of field, presence of negative edge factors and distance from SPA.

Further site level survey required?
No further survey required

Site ID	SS 9	Site Name	North Hordle	Plan Sub-area	South Coastal Towns

Review of aerial imagery
The site comprises relatively small field enclosures of irregular shape, which significantly reduces the distance to negative edge factors such as woodlands. Distances from centre to edge of fields are <50m. In addition, much of the site is enclosed by the urban area of Hordle. Furthermore, the site is located c.4km from the Solent SPA and 3km from New Forest SPA and separated from both by interspersing settlements.

Consideration of HBIC Data	
Priority Habitat Affected?	Lowland mixed woodland located in centre of site but not affected by development
Relevant HBIC SPA/Ramsar bird records within allocation?	No
Solent Wader and Brent Goose Strategy?	No
Undesignated Solent Strategy Site?	No
HBIC Potential Wildlife Site?	No
Statutory wildlife designation?	No
Non-statutory wildlife designation?	No

Consideration of Natural England and National Park data	
Breeding Wader Survey - records of target wader species?	No relevant data identified
Nightjar Survey	No relevant data identified
Dartford Warbler	No relevant data identified

Conclusion
Site is likely to be of low importance for SPA birds due to its location within the urban area of Hordle, small size of field, presence of negative edge factors and distance from SPA.

Further site level survey required?
No further survey required

Site ID	SS 10	Site Name	North-east of New Milton	Plan Sub-area	South Coastal Towns

Review of aerial imagery
Site is comprised of pastoral field enclosures surrounded by woodland, urban areas and a caravan park. Surrounding habitats likely to be of low value for foraging nightjar due to severance by urban areas and roads, and grazed horse pasture within site is likely to be of low value for this species. The site supports a relatively large field of potential suitability for SPA wader and wildfowl species, but the site is located c.4km from the Solent SPA and therefore unlikely to be an important resource for its SPA bird populations.

Consideration of HBIC Data	
Priority Habitat Affected?	a small area of lowland mixed woodland located in NE of site but not affected by development
Relevant HBIC SPA/Ramsar bird records within allocation?	No
Solent Wader and Brent Goose Strategy?	No
Undesignated Solent Strategy Site?	No
HBIC Potential Wildlife Site?	Yes - a small part of Stanley Copse East is located in the NE corner of site.
Statutory wildlife designation?	No
Non-statutory wildlife designation?	No - Danewod and Stanley Copse located adjacent to west of site.

Consideration of Natural England and National Park data	
Breeding Wader Survey - records of target wader species?	No relevant data identified
Nightjar Survey	No relevant data identified
Dartford Warbler	No relevant data identified

Conclusion
Site is likely to be of low importance for SPA birds due to its distance from SPAs, location within the urban area, small size of fields, and presence of negative edge factors such as woodland and residential development..

Further site level survey required?
No further survey required.

Site ID	SS 11	Site Name	South-west New Milton	Plan Sub-area	South Coastal Towns

Review of aerial imagery
The site supports an extensive areas of arable crop in the north of the site, and a similarly large expanse of pastoral habitat in south of site. Nevertheless, the site is located c.7km from the Solent SPA and is therefore unlikely to be of importance in maintaining SPA bird populations.

Consideration of HBIC Data	
Priority Habitat Affected?	No.
Relevant HBIC SPA/Ramsar bird records within allocation?	No.
Solent Wader and Brent Goose Strategy?	No.
Undesignated Solent Strategy Site?	No.
HBIC Potential Wildlife Site?	No.
Statutory wildlife designation?	No.
Non-statutory wildlife designation?	No.

Consideration of Natural England and National Park data	
Breeding Wader Survey - records of target wader species?	No relevant data identified
Nightjar Survey	No relevant data identified
Dartford Warbler	No relevant data identified

Conclusion
The site provides suitable foraging habitat for SPA waders and wildfowl but is located c.7km from Solent SPA and is therefore considered to be of negligible importance for populations of SPA birds.

Further site level survey required?
No further survey required.

Site ID	SS 12	Site Name	West of Bransgore	Plan Sub-area	Avon Valley and Downlands

Review of aerial imagery

The site is comprised of three large arable field enclosures surrounded by tree lines. Located approximately 2km to southwest of New Forest SPA and 1.5km east of Avon SPA.

Consideration of HBIC Data	
Priority Habitat Affected?	No.
Relevant HBIC SPA/Ramsar bird records within allocation?	No.
Solent Wader and Brent Goose Strategy?	No.
Undesignated Solent Strategy Site?	No.
HBIC Potential Wildlife Site?	No.
Statutory wildlife designation?	No.
Non-statutory wildlife designation?	No.

Consideration of Natural England and National Park data	
Breeding Wader Survey - records of target wader species?	No relevant data identified
Nightjar Survey	No relevant data identified
Dartford Warbler	No relevant data identified

Conclusion

The site provides extensive areas of arable habitat in a location close to where HIWWT has recorded notable numbers of wintering woodlark. The arable habitats within the site provide suitable habitat for supporting this species during winter and therefore has potential to be important in contributing to the maintenance of the New Forest SPA woodlark population during winter in combination with other similar habitat types in local area. Given the extent of proposed development relative to the site area, it would likely be possible to provide appropriate mitigation within the site boundary if further survey identified such as requirement at the project level.

Further site level survey required?

No further survey required for purposes of plan, but wintering woodlark surveys will be required as part of project level HRA to provide certainty that cumulative/in combination adverse effects on integrity will be avoided via provision of mitigation if required.

Site ID	SS 13	Site Name	South of Ringwood	Plan Sub-area	Avon Valley and Downlands

Review of aerial imagery
The site supports several large pastoral and arable fields located in close proximity to the Avon Valley SPA and Ramsar. Field enclosures are relatively large and field boundaries are of minimal prominence including low level fencing and hedging, which is likely to increase the feeling of openness.

Consideration of HBIC Data	
Priority Habitat Affected?	No.
Relevant HBIC SPA/Ramsar bird records within allocation?	No.
Solent Wader and Brent Goose Strategy?	No.
Undesignated Solent Strategy Site?	No.
HBIC Potential Wildlife Site?	Yes - Upper Kingston Arable Field Margins occurs in SW of site but is outside affected area.
Statutory wildlife designation?	No.
Non-statutory wildlife designation?	No.

Consideration of Natural England and National Park data	
Breeding Wader Survey - records of target wader species?	No relevant data identified
Nightjar Survey	No relevant data identified
Dartford Warbler	No relevant data identified

Conclusion
The site is located in close proximity to the Avon Valley SPA and Ramsar site, and supports several large field enclosures, including arable and pastoral land uses which may provide foraging habitat for Bewick's swan, black-tailed godwit and lesser black backed gull. As a result, there is potential for parts of the site to be used by these species and be important in contributing to the availability of offsite foraging habitat. Whilst the loss of this area would not alone result in adverse effects on integrity, it may combine to result in adverse effects on integrity in combination or cumulatively with other losses. Given the extent of proposed development relative to the site area, and the extent of retained greenspace, it would likely be possible to provide appropriate mitigation within the site boundary if further survey identified such as requirement at the project level.

Further site level survey required?
No further survey required for purposes of plan, but wintering and breeding bird surveys will be required as part of project level HRA to provide certainty that cumulative/in combination adverse effects on integrity will be avoided via provision of on-site mitigation if required.

Site ID	SS 14	Site Name	East of Ringwood	Plan Sub-area	Avon Valley and Downlands

Review of aerial imagery
The site comprises large open pastoral fields. The site lacks functional connectivity to the Avon Valley SPA and Ramsar site, being enclosed by the urban area of Ringwood, and therefore the suitability for supporting qualifying bird species of the Avon Valley is low. The site supports some ecological connectivity to the New Forest SPA to the east but the habitat types present are of low importance for the qualifying bird species.

Consideration of HBIC Data	
Priority Habitat Affected?	No.
Relevant HBIC SPA/Ramsar bird records within allocation?	No.
Solent Wader and Brent Goose Strategy?	No.
Undesignated Solent Strategy Site?	No.
HBIC Potential Wildlife Site?	No.
Statutory wildlife designation?	No.
Non-statutory wildlife designation?	No.

Consideration of Natural England and National Park data	
Breeding Wader Survey - records of target wader species?	No relevant data identified
Nightjar Survey	No relevant data identified
Dartford Warbler	No relevant data identified

Conclusion
The site is enclosed by the urban area of Ringwood and lacks functional connectivity with the Avon Valley SPA/Ramsar. The site is of low value for qualifying species of the New Forest SPA. Therefore, the sites importance for qualifying bird species is considered to be low.

Further site level survey required?
No further survey required.

Site ID	SS 15	Site Name	North of Ringwood	Plan Sub-area	Avon Valley and Downlands

Review of aerial imagery

The site comprises several fields of pasture. A review of historic aerial imagery indicates that the site has been utilised for mineral extraction within the last decade and has since been restored to grassland. The site is located in close proximity to the Avon Valley SPA/Ramsar with component sites in the form of large lakes located close to the site to the north and east. The suitability of the site for supporting significant numbers of SPA/Ramsar birds is restricted by its enclosure by woodland and treelines around much of the site periphery. Nevertheless, pasture is likely to provide some opportunity for foraging Bewick's swan and black-tailed godwit.

The site supports some ecological connectivity to the New Forest SPA to the east but the habitat types present are of low importance for those qualifying bird species.

Consideration of HBIC Data	
Priority Habitat Affected?	No.
Relevant HBIC SPA/Ramsar bird records within allocation?	No.
Solent Wader and Brent Goose Strategy?	No.
Undesignated Solent Strategy Site?	No.
HBIC Potential Wildlife Site?	No.
Statutory wildlife designation?	No.
Non-statutory wildlife designation?	No.

Consideration of Natural England and National Park data	
Breeding Wader Survey - records of target wader species?	No relevant data identified
Nightjar Survey	No relevant data identified
Dartford Warbler	No relevant data identified

Conclusion

The suitability of the site for supporting significant numbers of SPA/Ramsar birds is restricted by its recent establishment/restoration, and its enclosure by woodland and treelines around much of the site periphery. Nevertheless, grassland habitat is likely to provide some opportunity for foraging Bewick's swan and black-tailed godwit, qualifying species of the Avon Valley SPA and/or Ramsar site, albeit unlikely to comprise significant numbers alone.

Further site level survey required?

No further survey required for purposes of plan because the size of site relative to areas of potential suitability for qualifying bird species provides sufficient certainty that any mitigation requirements would be feasible and could be delivered within the site. Nevertheless, bird surveys will be required as part of project level HRA to inform site masterplanning to provide certainty that in

combination/cumulative adverse effects on integrity will be avoided.

Site ID	SS 16	Site Name	East of Ashford	Plan Sub-area	Avon Valley and Downlands

Review of aerial imagery
The site comprises grasslands with scattered trees which is likely to be of low value for bird species associated with the Avon Valley SPA and Ramsar and the New Forest SPA and Ramsar. The site also lacks functional connectivity with European sites, being enclosed by the urban areas of Fordingbridge and Ashford.

Consideration of HBIC Data	
Priority Habitat Affected?	No.
Relevant HBIC SPA/Ramsar bird records within allocation?	No.
Solent Wader and Brent Goose Strategy?	No.
Undesignated Solent Strategy Site?	No.
HBIC Potential Wildlife Site?	No.
Statutory wildlife designation?	No.
Non-statutory wildlife designation?	No.

Consideration of Natural England and National Park data	
Breeding Wader Survey - records of target wader species?	No relevant data identified
Nightjar Survey	No relevant data identified
Dartford Warbler	No relevant data identified

Conclusion
The site is considered likely to be of low importance for qualifying bird species due to distance from the Avon Valley SPA and a lack of functional connectivity with the New Forest SPA.

Further site level survey required?
No further survey required.

Site ID	SS 17	Site Name	North-west of Fordingbridge	Plan Sub-area	Avon Valley and Downlands

Review of aerial imagery
This site supports a network of field enclosures centred around Sweatford's water, a tributary of the River Avon. The scheme design has sought to retain and protect the riparian corridor and given that it is located c.3km to the north of the Avon Valley SPA/Ramsar, the site is considered likely to be of low importance for qualifying bird species.

Consideration of HBIC Data	
Priority Habitat Affected?	Yes - HBIC report identifies floodplain grazing marsh and wet woodland in centre of site.
Relevant HBIC SPA/Ramsar bird records within allocation?	No.
Solent Wader and Brent Goose Strategy?	No.
Undesignated Solent Strategy Site?	No.
HBIC Potential Wildlife Site?	No.
Statutory wildlife designation?	No.
Non-statutory wildlife designation?	Yes - the central part of site supports 3 SINCs. Arch Farm Meadow, Arch Farm Woodland and Meadow West of Whisbury Road.

Consideration of Natural England and National Park data	
Breeding Wader Survey - records of target wader species?	No relevant data identified
Nightjar Survey	No relevant data identified
Dartford Warbler	No relevant data identified

Conclusion
The site is considered likely to be of low importance for qualifying bird species due to distance from the Avon Valley SPA and a lack of functional connectivity with the New Forest SPA.

Further site level survey required?
No further survey required.

Site ID	SS 18	Site Name	North of Fordingbridge (Burgate)	Plan Sub-area	Avon Valley and Downlands

Review of aerial imagery
The site supports large pastoral fields located close to the River Avon. Whilst the site provides suitable habitat for qualifying species associated with the Avon Valley SPA and Ramsar, the site is unlikely to be important due to a distance of over 3km from the SPA/Ramsar and separation from the SPA by the town of Fordingbridge.

Consideration of HBIC Data	
Priority Habitat Affected?	No.
Relevant HBIC SPA/Ramsar bird records within allocation?	No.
Solent Wader and Brent Goose Strategy?	No.
Undesignated Solent Strategy Site?	No.
HBIC Potential Wildlife Site?	No.
Statutory wildlife designation?	No.
Non-statutory wildlife designation?	No.

Consideration of Natural England and National Park data	
Breeding Wader Survey - records of target wader species?	No relevant data identified
Nightjar Survey	No relevant data identified
Dartford Warbler	No relevant data identified

Conclusion
Whilst the site provides suitable habitat for qualifying species associated with the Avon Valley SPA and Ramsar, it is unlikely to be important as an offsite foraging resource due to a distance of over 3km from the SPA/Ramsar and separation from the SPA by the town of Fordingbridge.

Further site level survey required?
No further survey required.