



**New Forest District Council and New
Forest National Park Authority**

**Habitats Regulations
Assessment
Fawley Waterside
(19/00365)**

Final report
LUC
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**New Forest District Council and New Forest
National Park Authority**

**Habitats Regulations Assessment
Fawley Waterside (19/00365)**

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10788

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Chapter 1

Introduction

1.1 LUC has been commissioned by New Forest District Council (NFDC) and New Forest National Park Authority (NFNPA) ('the Councils') to carry out a Habitats Regulations Assessment (HRA) of Fawley Waterside (planning application numbers: 19/00365 and 19/10581). This report presents the methodology and findings of the HRA.

The development project

1.2 The project involves the development of Fawley Waterside, a new community on the site of the former Fawley Power Station. Full details of the proposed development are provided within the Revised Development Specification (Deloitte, May 2020)¹ and in the Information for Appropriate Assessment of Proposed Development, Fawley Waterside Ltd, Fawley, Hampshire (5th May 2020)² referred to in this report as the "Shadow HRA".

1.3 The project involves the submission of two outline planning applications with all matters reserved apart from the means of access to the site and primary access through the site:

- **Application 1 (submitted to NFDC):** Land within the New Forest District Council comprising the demolition of ancillary power station buildings and provision of 1,380 new homes, 95,300 square metres of new commercial, civic and employment space (Use Classes A1, A2, A3, A4, B1, B2, B8, C1, C3, D1 and D2), enlargement of the dock and creation of a canal within part of the turbine hall basement, refurbishment of the remainder of the turbine hall basement to create up to 2,100 space car park, surface car parking, a boat stack, public open space, Suitable Alternative Natural Greenspace, primary access road through the site, flood defences / sea wall, raising site level, hard and soft landscaping, associated infrastructure and engineering works.
- **Application 2 (submitted to the New Forest National Park Authority (NFNPA)):** Land within the New Forest National Park Authority comprising the removal of structures on the quarry site and provision of 120 new homes, 1000 square metres of new civic space including provision for Early Years Learning (Use Class D1), 200

¹ Revised Development Specification: Fawley Waterside (May 2020) Deloitte Real Estate.

² Information for Appropriate Assessment of Proposed Development, Fawley Waterside Ltd, Fawley, Hampshire. Version 12 (5th May 2020). Jonathan Cox Associates Ecological Consultancy

square metres of drinking establishments (Use Class A4), a two form entry primary school, early years provision, flood defences / sea wall, public open space and habitat enhancement of existing land, hard and soft landscaping, Suitable Alternative Natural Greenspace, a saline lagoon, tidal creek, reconfiguration of the existing access and creation of a new access from the B3053 and access road through the site, associated infrastructure and engineering works.

1.4 The two planning applications involve considerable overlap and are therefore being considered together as one development project. The two subsequent planning permissions would be linked and implemented as one project under a single Section 106 agreement. For the purposes of clarity and consistency, this HRA report also considers the two applications together and assesses the wider development as a whole, hereafter referred to as the “development project”.

The requirement to undertake HRA

1.5 The requirement to undertake HRA of development projects was confirmed by the amendments to the Habitats Regulations published for England and Wales in 2007³; the currently applicable version of the Habitats Regulations came into force in November 2017⁴. When determining a planning application for a development project with potential to affect European sites, the Councils are 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 determining a planning application is also noted in the Government’s online planning practice guidance.

1.6 HRA refers to the assessment of the potential effects of a development project 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 Directive⁵ 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.

1.7 Potential SPAs (pSPAs)⁶, candidate SACs (cSACs)⁷, Sites of Community Importance (SCIs)⁸ and Ramsar sites should also be included in the assessment.

- 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).

1.8 For ease of reference during HRA, these designations can be collectively referred to as European sites⁹ despite Ramsar designations being at the international level.

1.9 The overall purpose of this HRA is to conclude whether or not the project 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 development project for the ‘qualifying features’ for which the European site was designated, i.e.:

- SACs – Annex I habitat types and Annex II species¹⁰;
- SPAs – Annex I birds and regularly occurring migratory species not listed in Annex I¹¹;
- Ramsar sites – the reasons for listing the site under the Convention¹².

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

Stages of HRA

1.11 The HRA of development projects 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.

1.12 The HRA should be undertaken by the ‘competent authority’, in this case NFDC and NFNPA, and LUC has been commissioned to do this on the Council’s behalf. The HRA

³ The Conservation (Natural Habitats, &c.) (Amendment) Regulations 2007 (2007) SI No. 2007/1843. TSO (The Stationery Office), London.

⁴ The Conservation of Habitats and Species Regulations 2017 (2017) SI No. 2017/1012, TSO (The Stationery Office), London.

⁵ 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).

⁶ 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.

⁷ 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.

⁸ SCIs are sites that have been adopted by the European Commission but not yet formally designated as SACs by the UK Government.

⁹ 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.

¹⁰ 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).

¹¹ 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.

¹² As set out in section 14 of the relevant ‘Information Sheet on Ramsar Wetlands’ available on the JNCC website.

also requires close working with Natural England as the statutory nature conservation body¹³ 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) and the RSPB.

Requirements of the Habitats Regulations

1.13 In assessing the effects of a development project 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:

1.14 Step 1: Under Reg. 105(1)(b), consider whether the project is directly connected with or necessary to the management of the sites. If not, proceed to Step 2.

1.15 Step 2: Under Reg. 105(1)(a) consider whether the project 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.

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

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

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

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

1.20 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

1.21 Table 1.1 summarises the stages and associated tasks and outcomes typically involved in carrying out a full HRA, based on various guidance documents¹⁴¹⁵¹⁶.

Table 1.1: Stages of HRA

Stage	Task	Outcome
Stage 1: HRA screening	Description of the development project. 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 project 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 project and European Sites). Impact prediction. Evaluation of development project impacts in view of conservation objectives.	Appropriate assessment report describing the project, European site baseline conditions, the adverse effects of the project on the European site, how these effects will be avoided or adequately mitigated,

¹³ Regulation 5 of the Habitats Regulations 2017.

¹⁴ 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.

¹⁵ DCLG (2006) Planning for the Protection of European Sites: Appropriate Assessment

¹⁶ RSPB (2007) The Appropriate Assessment of Spatial Plans in England. A guide to why, when and how to do it.

Stage	Task	Outcome
	Where impacts are considered to affect qualifying features, identify how these can 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.

1.22 It is normally anticipated that an emphasis on Stages 1 and 2 of this process will, through a series of iterations, help ensure that potential adverse effects are identified and eliminated through sensitive design or through mitigation measures designed to avoid, reduce or abate effects. The need to consider alternatives could imply more onerous changes to a project. 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

1.23 A number of documents and supporting information have been provided to help inform this HRA and should be read in conjunction with the assessment conclusions provided herein. The key sources of information include:

- Information for Appropriate Assessment of Proposed Development, Fawley Waterside Ltd, Fawley, Hampshire. Version 12 (5th May 2020). Jonathan Cox Associates Ecological Consultancy. Referred to in this report as the "Shadow HRA".
- Fawley Nature Park Management Plan. Version 2 (30th April 2020) Jonathan Cox Associates Ecological Consultancy.
- Tom Tiddlers Ground SINC Habitat Compensation & Improvement Plan. Version 4 (28th April 2020). Jonathan Cox Associates Ecological Consultancy.
- An initial round of consultation responses from the NFDC, Natural England, the Environment Agency and the RSPB, provided in 2019.
- A final round of consultation responses from the NFDC, Natural England, the Environment Agency and the RSPB, provided in 2020.
- Various meetings and email correspondence.

1.24 The assessment has also been informed by a site walkover undertaken on 21st August 2019, attended by LUC Associate Director of Ecology David Green, together with Jonathan Cox (Jonathan Cox Associates), Ian Barker (New Forest District Council), Natalie Walter (New Forest National Park Authority), Ian Rayner (New Forest District Council), Dr Richard Black (RSPB) and John Stobart (Natural England).

1.25 The to inform the appropriate assessment conclusions, the consultation responses from key stakeholders and statutory consultees were collated into a review matrix which is provided in **Appendix A**.

Structure of the HRA report

This chapter has introduced the project and the requirement to undertake HRA. The remainder of the report is structured as follows:

- Chapter 2 sets out the approach used and specific tasks undertaken during the HRA;
- Chapter 3 describes the findings of the screening stage of the HRA;
- Chapter 4 describes the assumptions made and assessment findings for the Appropriate Assessment stage of the HRA;
- Chapter 5 summarises the assessment conclusions of the HRA of the proposed Fawley Waterside project.

Chapter 2

HRA Methodology

2.1 HRA of the Fawley Waterside project 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

2.2 A buffer distance of 10 km around the proposed development site 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 proposed development site 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.

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

- Solent and Southampton Water Special Protection Area (SPA);
- Solent and Southampton Water Ramsar;
- Solent Maritime Special Area of Conservation (SAC);
- New Forest SPA;
- New Forest Ramsar Site;
- New Forest SAC;
- Solent and Dorset Coast SPA; and
- River Itchen SAC.

2.4 The designated features and conservation objectives of the European sites, together with current pressures on and potential threats to these are described in **Appendix B**. This information was drawn from the Standard Data Forms for SACs and SPAs and the Information Sheets for Ramsar Wetlands published on the JNCC website¹⁷, Natural England's Site Improvement Plans¹⁸, conservation objectives (only available for SACs and SPAs) published on the Natural

¹⁷ www.jncc.defra.gov.uk

¹⁸ <http://publications.naturalengland.org.uk/category/5458594975711232>

England website¹⁹, and consultation information for potential marine SPAs published by Defra²⁰.

Approach to HRA screening

2.5 As required under Regulation 105 of the Conservation of Habitats and Species Regulations 2017²¹ an assessment was made of the 'likely significant effects' of the development project in the absence of specific mitigation and avoidance measures. 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'

2.6 Relevant case law helps to interpret when effects should be considered as a 'likely significant effect', when carrying out HRA of a development project.

2.7 In the Waddenzee case²², 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).

2.8 Another opinion delivered to the Court of Justice of the European Union²³ 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."

2.9 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

2.10 A screening assessment was undertaken to identify which components of the development project 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 summarised in Chapter 3. Where likely significant effects could not be ruled out for a component of the development project, the component was subject to Appropriate Assessment in Chapter 4, taking into account mitigation, in order to conclude whether adverse effects on integrity can be ruled out.

2.11 The screening assessment was undertaken prior to consideration of the mitigation which may be provided as part of the development proposals or by other policies and regulatory mechanisms. This is consistent with the 2018 European Court of Justice ruling²⁴ 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

2.12 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

¹⁹ <http://publications.naturalengland.org.uk/category/6490068894089216>

²⁰ <https://www.gov.uk/government/consultations/solent-and-dorset-coast-potential-special-protection-area-comment-on-proposals>

²¹ The Conservation of Habitats and Species Regulations 2017 (2017) SI No. 2017/1012, TSO (The Stationery Office), London.

²² ECJ Case C-127/02 "Waddenzee" Jan 2004.

²³ Advocate General's Opinion to CJEU in Case C-258/11 Sweetman and others v An Bord Pleanála 22nd Nov 2012.

²⁴ 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

connected with or necessary to the management of the site”.

2.13 Therefore, as well as considering the likely effects of the development project alone on European sites, it was necessary to consider whether there may be significant effects from the development project in combination with other plans or projects.

2.14 The potential for ‘in combination’ effects need only be considered for those project 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 HRA²⁵.

2.15 The first stage in identifying potential in combination effects involves identifying which other plans and projects in addition to the development project may affect the European sites that are the focus of the HRA.

2.16 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;
- proposals in finalised draft plans formally published or submitted for final consultation or adoption.

2.17 Other plans and projects have been identified in Section 10 of the Shadow HRA: These include the following planning applications references, for which further detail is provided in the shadow HRA:

- 17/10805, 17/11752 and 18/1058;
- 18/11145;
- MLA/2017/00070;
- MLA/2014/00592/1;
- 18/10050;

- 17/10943;
- 18/11145;
- 19/10138;
- 19/10131; and
- 19/00055.

These projects are considered appropriate to inform the HRA of the development project. No other projects of significant scale that could result in in combination effects with the development project were identified as part of this assessment.

Mitigation

2.18 Where a potential effect on a European site has been identified, it is often possible for this to be avoided through the design and implementation of appropriate mitigation. However, in line with current guidance and case law, this mitigation cannot be considered at the screening stage. Therefore, where a likely significant effect in the absence of mitigation has been identified during the screening stage, this was taken forward to the Appropriate Assessment stage. Mitigation was then only taken into consideration in reaching conclusions at the Appropriate Assessment stage.

²⁵ DTA: The Habitats Regulations Assessment Handbook:
<http://www.dtapublications.co.uk/handbook/browse>

Chapter 3

HRA Screening

3.1 As described in Chapter 2, a screening assessment was carried out to identify which components of the development project have the potential to result in likely significant effects on European sites, and this was carried out prior to consideration of mitigation provided by the development proposals, 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

3.2 The Screening Assessment in Section 3 of the Shadow HRA identified 11 potential effects which could result in likely significant effects on European sites. This assessment is considered to be appropriate and the effects identified are summarised below and in Table 3.1.

3.3 As described in the HRA screening in Chapter 3, the requirement for Appropriate Assessment was identified in relation to the following types of likely significant effect of the development project, either alone or in-combination on European sites:

The New Forest SAC, SPA and Ramsar site

- Recreation disturbance to birds and damage to habitats within the New Forest;
- Reduced air quality from increased traffic; and
- Road traffic accidents to New Forest livestock.

The Solent and Southampton Water SPA and Ramsar Site

- Direct loss of SPA supporting habitat;
- Boat disturbance to wintering waterfowl including recreation and commercial shipping movements;
- Cat predation of wintering waterfowl; and
- Noise disturbance to wintering waterfowl.

The Solent and Southampton Water SPA and Ramsar Site and the Solent Maritime SAC

- Recreation disturbance to birds and damage to coastal habitats in the Solent;
- Reduction in water quality within the Solent; and
- Hydrological impacts on intertidal marine habitats.

The River Itchen SAC, the Solent Maritime SAC and the Solent and Southampton Water Ramsar site

3.4 An Appropriate Assessment was therefore made of these potential effects, as presented in Chapter 4.

- Disturbance to migratory fish from noise and vibration;

Table 3.1: Likely significant effects screened in to the HRA

Effect	European and Ramsar sites impacted	Features to be assessed
1. Recreation disturbance to birds and damage to habitats within the New Forest	New Forest SPA, New Forest SAC and Ramsar Site	Annex I Birds (Dartford warbler, Woodlark, Nightjar, Kingfisher). Migratory birds (Wood warbler, Hobby). Annex I SAC habitats. Ramsar habitats and species
2. Recreation disturbance to birds and damage to coastal habitats in the Solent	Solent and Southampton Water SPA and Ramsar Site and Solent Maritime SAC	Migratory bird species (Brent goose, Black-tailed godwit, Teal, Ringed plover). Migratory bird assemblage (All non-breeding water-birds). Annex I coastal habitat types. Ramsar wetland habitats.
3. Direct loss of SPA supporting habitat	Solent and Southampton Water SPA and Ramsar Site	Migratory bird species (Brent goose, Black-tailed godwit, Teal, Ringed plover). Migratory bird assemblage (All non-breeding water-birds). Annex I Birds (Peregrine falcon).
4. Boat disturbance to wintering waterfowl including recreation and commercial shipping movements	Solent and Southampton Water SPA and Ramsar Site	Migratory bird species (Brent goose, Black-tailed godwit, Teal, Ringed plover). Migratory bird assemblage (All non-breeding water-birds). Annex coastal habitat types. Ramsar wetland habitats.
5. Reduction in water quality within the Solent	Solent and Southampton Water SPA and Ramsar Site and Solent Maritime SAC	Migratory bird species (Brent goose, Black-tailed godwit, Teal, Ringed plover). Migratory bird assemblage (All non-breeding water-birds). Annex I coastal habitat types. Ramsar wetland habitats.
6. Hydrological impacts on intertidal marine habitats	Solent Maritime SAC and Solent and Southampton Water SPA and Ramsar Site	Migratory bird species (Brent goose, Black-tailed godwit, Teal, Ringed plover). Migratory bird assemblage (All non-breeding water-birds). Annex I coastal habitat types. Ramsar wetland habitats.
7. Cat predation of wintering waterfowl	Solent and Southampton Water SPA and Ramsar Site	Migratory bird species (Brent goose, Black-tailed godwit, Teal, Ringed plover). Migratory bird assemblage (All non-breeding water-birds).
8. Disturbance to migratory fish from noise and vibration	River Itchen SAC, Solent Maritime SAC and Solent and Southampton Water Ramsar site	Annex I Estuary habitat. Ramsar Estuary habitat. Annex II species (Atlantic salmon, River lamprey, Sea lamprey)
9. Noise disturbance to wintering waterfowl	Solent and Southampton Water SPA and Ramsar Site	Migratory bird species (Brent goose, Black-tailed godwit, Teal, Ringed plover). Migratory bird assemblage (All non-breeding water-birds).
10. Reduced air quality from increased traffic	New Forest SPA and Ramsar Site and New Forest SAC	Annex I Birds (Dartford warbler, Woodlark, Nightjar, Kingfisher). Migratory birds (Wood warbler, Hobby). Annex I SAC habitats. Ramsar habitats and species
11. Road traffic accidents to New Forest livestock	New Forest SPA and Ramsar Site and New Forest SAC	Annex I Birds (Dartford warbler, Woodlark, Nightjar, Kingfisher). Migratory birds (Wood warbler, Hobby). Annex I SAC habitats. Ramsar habitats and species

Chapter 4

Appropriate Assessment

4.1 This chapter considers each of the likely significant effects identified as part of the screening stage, and concludes whether adverse effects on the integrity of European sites can be ruled out in light of proposed avoidance and mitigation measures.

4.2 The information and conclusions within this Appropriate Assessment should be considered in conjunction with the suite of information and measures proposed as part of the 'Shadow HRA' and in conjunction with the review matrix provided in Appendix A of this report.

The New Forest SAC, SPA and Ramsar site

Recreation disturbance to birds and damage to habitats within the New Forest

Background

4.3 Section 9.2 of the Shadow HRA identifies that the development project will result in an increased number of visitors to the New Forest SAC, SPA and Ramsar Site. This increased number of visitors is likely to result in an increase in visitor pressure. In particular, this visitor pressure can take the form of recreational disturbance to the qualifying bird species of the SPA (nightjar, Dartford warbler and woodlark) and damage to the qualifying habitat features of the SAC and Ramsar through activities such as dog fouling, fly-tipping and fires. In the absence of mitigation, these impacts could result in adverse effects on the integrity (AEoI) of these European sites.

Mitigation and Avoidance

4.4 Key elements of the mitigation and avoidance measures proposed by the applicant include:

- The provision of Suitable Alternative Natural Greenspace (SANGs) in close proximity to the proposed development, to direct visitors away from the New Forest SAC, SPA and Ramsar Site and Ramsar site.
- The implementation of the Fawley Nature Park Management Plan (FNPMP) (April 2020) which covers an area of 275 hectares, including the SANGs and provides opportunities for recreation. The FNPMP also

sets out additional measures to manage recreational disturbance, such as fencing and habitat management.

- The provision of a team of rangers to deliver the FNPMP and manage visitor access.
- A financial contribution to the New Forest Management Scheme, as part of a Section 106 agreement.
- A financial contribution towards the on-going monitoring of the New Forest SAC, SPA and Ramsar Site and Ramsar site, as part of a Section 106 agreement.

Conclusion

4.5 The information provided is sufficient for the competent authority to conclude no AEoI of the New Forest SAC, SPA and Ramsar Site, either alone or in combination with other plans and projects, as a result of recreation, subject to the following matters outlined below. The proposals involve a high degree of reliance on the combined effectiveness of a suite of mitigation and avoidance measures acting in parallel. Therefore, it will be necessary for each component of the mitigation and avoidance package to function as intended, and for this suite of measures to be secured, delivered and monitored successfully for the lifetime of the impact to ensure that a conclusion of no AEoI can be reached. Further information is provided below.

SANGs

4.6 The proposals for SANG creation and management within the FNPMP are considered to be sufficient to mitigate for adverse effects on integrity, either alone or in-combination with other plans and projects, provided that an appropriate level of funding and number of ranger staff are provided, as outlined below. Given the ecological sensitivities within the site and the surroundings, the SANGs have been designed to be more naturalistic than would normally be required and some areas of habitat are intended to be managed as wildlife refuges with limited public access. This reduces the amount of easily accessible open space; and for this reason it is considered important that the SANGs form part of the wider Fawley Nature Park, rather than being provided in isolation, to ensure that they are effective in mitigating adverse effects on integrity.

4.7 In addition, concerns have been raised by Natural England over the phasing of the SANGs delivery and the impact that the on-going development and quarry works may have on the attractiveness and accessibility of the Phase 1 SANG provision for visitors. In response to this, additional areas of SANGs have been brought forward for delivery in

Phase 1, to provide improved connectivity and provision, as shown in drawing D2502-L214 rev 04.

4.8 This additional information provides sufficient certainty that the SANGs will, in principle, function as intended in its role in avoiding and mitigating recreational effects which could otherwise lead to AEoI, subject to agreement of further details on design and phasing at the detailed design stage. This will need to include information on how the Phase 1 SANGs will be designed/managed to ensure that their attractiveness to visitors is not significantly compromised by the ongoing development and quarry work.

The FNPMP

4.9 The information provided in the FNPMP provides sufficient certainty that it will, in principle, function as intended in its contributory role in avoiding and mitigating recreational impacts which could otherwise lead to AEoI, subject to agreement of further details on design and phasing at the detailed design stage, subject to the matters raised below.

The Provision of Rangers

4.10 Concerns have been raised by Natural England, the NFDC and the RSPB over the proposed number of rangers who will be responsible for implementing the mitigation. A primary concern is that ranger teams work best in pairs and therefore a team of three reduces the effectiveness significantly. Furthermore, there is uncertainty as to whether this number of rangers would provide sufficient resources for delivering all relevant aspects of the mitigation to a standard that enables certainty in a conclusion of no adverse effects on integrity.

4.11 Following further correspondence between NFDC and the applicant²⁶, the following additional resources have been proposed, in addition to the three full-time rangers:

- The employment of a full-time apprentice ranger to work with the other three rangers making a four-person ranger team to operate across the Nature Park and Marine Management Plan area.
- Employment of a temporary seasonal ranger to assist the permanent ranger team.

4.12 The new proposals also include a commitment to ongoing monitoring and review of the level of staff, in consultation with the Nature Park Steering Group, as described in the Nature Park Management Plan.

4.13 These updated proposals are considered to provide sufficient staff resources, to ensure that the proposed

²⁶ Jonathan Cox (3rd July 2020) Note on wardening and peregrine nesting compensation.

mitigation role that they are intended to provide in avoiding AEoI as a result of recreational disturbance, either alone or in combination with other plans and projects, will be successfully delivered.

Section 106 financial contributions

4.14 The New Forest National Park Authority and New Forest District Council have policies in place which require new housing developments to make a strategic financial contribution towards the New Forest Management Scheme, due to the increase in recreational pressure on New Forest SAC, SPA and Ramsar that will result from these developments. These planning policies have been implemented with agreement from the Councils, relevant stakeholders and statutory consultees as a necessary mitigation measure to avoid AEoI, as a result of recreational impacts. Any deviation from this approach would therefore need to be fully justified and evidence-based.

4.15 The applicant has proposed to provide 75% of the standard rate of contribution for the new Forest recreational disturbance strategy. This is on the basis that SANGs will be provided within the scheme and that the provision and management of these SANGs exceeds the minimum requirements set by the Councils.

4.16 However, in line with the precautionary principle, a reduction in the contribution amount would not provide sufficient certainty that this crucial element of mitigation and avoidance would be adequately provided to avoid AEoI, as a result of recreational activity. The primary reasons for this are:

- The information provided to support this proposal²⁷ lacked evidence to support the figures and rationales as to why and to what extent the proposed mitigation would offset the recreational impact on the New Forest SAC, SPA and Ramsar Site.
- The Fawley Nature Park is not located within or adjacent to the New Forest European sites and the above mitigation measures do not involve the direct management of these sites.
- Much of the land within the Fawley Nature Park is currently already accessible to the public and used for informal recreation, either via the Public Rights of Way, or due to a lack of physical barriers preventing access.
- Given the ecological sensitivities within and around the development site, the provision of natural greenspace would be expected to significantly exceed the minimum SANG requirement, and therefore it does not follow that

this provision should be offset against strategic financial contributions.

4.17 In line with the precautionary principle, where there is no certainty beyond reasonable scientific doubt that AEoI can be avoided, it must be concluded that AEoI will occur. Therefore, in order to provide sufficient certainty that AEoI can be avoided, either 100% of the contribution must be paid, or additional evidence presented to provide sufficient certainty in the acceptability of a reduced contribution.

4.18 The applicant has confirmed that they would be willing to pay the full contribution amount, if this was deemed to be justified by this HRA²⁸. Therefore, provided that this is paid in full, it can be concluded that no adverse effects on integrity of the New Forest SAC, SPA and Ramsar Site will occur, either alone or in-combination with other plans and projects, as a result of recreational activity.

Reduced air quality from increased traffic

Background

4.19 The construction and operational phases of the development project are expected to generate an increase in traffic, particularly in close proximity to the residential development and at locations adjacent to the main access routes to and from this area. This has the potential to result in adverse effects on sensitive habitats within the New Forest SPA and Ramsar Site and New Forest SAC through air pollution.

Mitigation/ Assessment

4.20 The assessment provided in Section 9.10 of the Shadow HRA concluded that changes in nitrogen deposition and concentration associated with changes in road traffic are not likely to have adverse effects on the New Forest SPA, SAC and Ramsar site. This was in line with the findings of the New Forest National Park Authority (NFNPA) Local Plan HRA, which concluded that: "Implementation of the NFNPA Local Plan and NFDC Local Plan in isolation is not likely to have a significant effect on the New Forest SAC, SPA and Ramsar site." However, periodic monitoring of sensitive vegetation will be undertaken by the Local Authorities during the life of the two Local Plans, which will identify habitat management and mitigation actions should these be required.

Conclusions

4.21 The assessment undertaken in the Shadow HRA is considered to be robust and the information provided is sufficient to conclude no adverse effects on integrity of the

²⁷ Jonathan Cox (6th July 2020) Nature conservation and Recreation benefits of the proposed Fawley Waterside Development

²⁸ Fawley Waterside: Management, Governance & Response to Questions (12th July 2020)

European sites, either alone or in-combination with other plans and projects, in relation to this matter, provided that the commitment to monitoring of sensitive habitats is provided through the commitment in the Local Plans, as outlined above.

Road traffic accidents to New Forest livestock

Background

4.22 Increases in traffic as a result of the development project has the potential, when in combination with other plans and projects, to result in an increased risk of road traffic accidents to livestock within the New Forest New Forest SPA and Ramsar Site and New Forest SAC. Grazing is an important aspect of the management of this European site in maintaining the favourable condition and diversity of the site's habitats and the suitability of these habitats for the qualifying bird species.

Mitigation/ Assessment

4.23 Section 9.11 of the Shadow HRA highlights that the proportion of commoners' livestock killed in road traffic accidents has consistently declined since 1962. This is thought to be due to the fencing off of the roads with the highest collision risk and a range of other measures that have been successfully implemented. These measures and the traffic accidents are monitored by the NFNPA. The Shadow HRA also highlights that the NFNPA Local Plan HRA concluded that there would be no adverse effect on the integrity of the New Forest European sites as a result of increased traffic collision risk to New Forest livestock.

Conclusions

4.24 We consider the information provided in the Shadow HRA to be sufficient to conclude no adverse effects on integrity of the European sites, either alone or in-combination with other plans and projects, in relation to this matter.

The Solent and Southampton Water SPA and Ramsar Site

Direct loss of SPA supporting habitat

Background

4.25 Section 9.1 of the Shadow HRA confirms that the development project will not take place within any of the adjacent European sites, and therefore, no direct loss of European site habitat will occur.

4.26 A small proportion of the Tom Tiddlers Ground SINC will be lost to the development with compensation provided elsewhere within the Fawley Nature Park. This area to be lost is included within site NF156A identified by the Solent Wader and Brent Goose Strategy as a primary supporting area for providing Solent and Southampton Water SPA and Ramsar site functionally linked habitat.

Mitigation and Avoidance

4.27 The Shadow HRA and supplementary information provided by Jonathan Cox²⁹ has highlighted that due to the habitats present within the Tom Tiddler's Ground SINC, suitability for brent goose is limited to a small strip of land in the south which will not be lost to the development. In light of the above, no mitigation is proposed within Section 9.1 of the Shadow HRA in relation to direct loss of SPA supporting habitat. However, the proposals for the creation of a tidal creek, saline lagoon and extensive areas of grazing marsh and intertidal mudflat are considered to represent a significant enhancement for the qualifying features of the Solent and Southampton Water SPA and Ramsar Site.

Conclusions

4.28 In conclusion, the loss of brent goose supporting habitat is minimal and is restricted to an area of land which will, through habitat creation and management of the tidal creek, provide an equal or increased benefit to brent geese and other SPA/Ramsar species and an increased contribution towards maintaining and strengthening the conservation objectives of the Solent and Southampton Water SPA and Ramsar.

4.29 As a result, the information provided is sufficient for the competent authority to conclude no adverse effects on integrity of the Solent and Southampton Water SPA and Ramsar Site, either alone or in-combination with other plans and projects as a result of loss of habitat.

Boat disturbance to wintering waterfowl including recreation and commercial shipping movements

Background

4.30 Section 9.4 of the Shadow HRA identifies that the development project will result in an increase in commercial and recreational boat traffic. This could result in disturbance to wintering wildfowl, including species listed as qualifying species of the Solent and Southampton Water SPA and Ramsar Site.

²⁹ Jonathan Cox (8th August 2019) Response to RSPB Objection 9 July 2019.

Mitigation and Avoidance

4.31 An updated Marine Management Plan (MMP) has been provided in Appendix 5 of the Shadow HRA. The mitigation measures outlined in this plan include:

- Restricting boating activities away from the most sensitive areas;
- Enforcement of speed limits;
- Provision of a team of rangers, a marina manager and close liaison with the Port of Southampton Harbourmaster and Vessel Traffic Service (VTS);
- The establishment of a Liaison Group to provide a forum for overseeing Fawley Waterside's operation of the MMP;
- Education and outreach measures to encourage positive behaviour among visitors and residents; and
- A long-term monitoring programme, with results fed back to the Local Authority and Liaison Group.

Conclusions

4.32 The measures outlined in the MMP address the issues raised in relation to this matter. This is sufficient to give the competent authority confidence that no adverse effects on integrity will occur, either alone or in-combination with other plans and projects as a result of boat disturbance. This conclusion is subject to an appropriate level of funding and wardening being provided to ensure that the MMP is implemented sufficiently and in perpetuity.

Cat predation of wintering waterfowl

Background

4.33 The lagoon and coastal grazing marsh habitats within Tom Tiddlers Ground are within the potential range of cats from the proposed development. Whilst birds occupying marine wetland habitats are generally of lower susceptibility to cat predation due to physical barriers and clear sightlines, a degree of vulnerability remains in the absence of avoidance and mitigation measures.

4.34 The wintering wading birds, which are qualifying features of the Solent and Southampton Water SPA and Ramsar, could become vulnerable to cat predation when concentrated on high water wader roosts if these were accessible to cats. Consequently, in the absence of mitigation, there is potential for cat predation to result in an adverse effect on integrity of the Southampton Water SPA & Ramsar Site.

Mitigation and Avoidance

4.35 Section 4 of the Tom Tiddlers Ground SINC Habitat Compensation & Improvement Plan (April 2020) and Section 9.7 of the Shadow HRA outline the proposals for the creation of 3 - 4 metre waterfilled ditches or dykes separating the new development from the grazing marshes and encircling the saline lagoon. In addition, mitigation will be provided through education and information provided to new residents of the proposed development including the promotion of the use of cat bells. These measures will be monitored by the Nature Park rangers and modified where necessary.

Conclusions

4.36 The information provided in relation to these measures is sufficient for the competent authority to conclude that adverse effects on integrity, either alone or in-combination with other plans and projects, as a result of cat predation can be avoided, subject to further information being provided at detailed design stage. This further information will need to include the detailed design of the Tom Tiddlers Ground habitats and the ditches and dykes, in order to ensure that cats are sufficiently deterred.

Noise disturbance to wintering waterfowl

Background

4.37 The construction and operational phases of the development project are likely to generate noise, some of which will exceed the levels which birds are known to tolerate. The Environmental Statement concludes that "without the implementation of mitigation measures, there is likely to be a direct, temporary, short-term major negative effect on all nearby sensitive receptors during the construction works, which is considered to be significant, during the average-case scenario." Given the development site's proximity to the Solent and Southampton Water SPA and Ramsar, in the absence of mitigation, there is potential for adverse effects on the integrity of the European sites to arise as a result of noise disturbance.

Mitigation and Avoidance

4.38 A Construction Environmental Management Plan (CEMP) has been prepared which outlines the potential sources of noise during construction and the relevant mitigation measures that will be employed. The CEMP is an iterative document and will be updated as more detail becomes available. Further information on these mitigation measures is provided in Section 9.8 of the Shadow HRA.

Conclusions

4.39 The information provided within the Shadow HRA and the mitigation and avoidance measures proposed (CEMP) is

sufficient at this stage for the competent authority to have sufficient certainty that adverse effects on integrity can be avoided, either alone or in-combination with other plans and projects as a result of noise disturbance to wintering birds.

The Solent and Southampton Water SPA and Ramsar Site and the Solent Maritime SAC

Recreation disturbance to birds and damage to coastal habitats in the Solent

Background

4.40 Section 9.3 of the Shadow HRA identifies that the development project will result in an increased number of visitors to the Solent and Southampton Water SPA and Ramsar Site and the Solent Maritime SAC. This increased number of visitors is likely to result in an increase in visitor pressure. In particular, this can take the form of recreational disturbance to the qualifying bird species and species assemblages which are sensitive to disturbance. In the absence of mitigation, these impacts could result in adverse effects on the integrity AEoI of these European sites.

Mitigation and Avoidance

4.41 Key elements of the mitigation include:

- The provision of Suitable Alternative Natural Greenspace (SANGs) in close proximity to the proposed development, to direct visitors away from the sensitive areas of the Solent and Southampton Water SPA and Ramsar Site and the Solent Maritime SAC.
- A comprehensive plan of sensitively positioned coastal paths, fencing, habitat management and creation of water filled ditches around the proposed development to manage public access and minimise disturbance to birds.
- The implementation of the Fawley Nature Park Management Plan (FNPMP) (April 2020) which covers an area of 275 hectares, including the SANGs and provides opportunities for recreation.
- The implementation of the Marine Management Plan (MMP) (May 2020)
- The provision of a team of rangers to deliver the FNPMP and manage visitor access.
- A financial contribution to the Solent Recreation Mitigation Partnership (SRMP) of 75% of the standard rates, made as part of a S106 agreement.

Conclusions

4.42 The information provided is sufficient for the competent authority to conclude no adverse effects on the integrity of the Solent and Southampton Water SPA and Ramsar Site and the Solent Maritime SAC, either alone or in combination with other plans and projects, as a result of recreation, subject to the following matters outlined below. The proposals involve a high degree of reliance on the combined effectiveness of a suite of mitigation and avoidance measures acting in parallel. Therefore, it will be necessary for each component of the mitigation and avoidance package to function as intended, and for this suite of measures to be secured, delivered and monitored successfully for the lifetime of the impact to ensure that a conclusion of no AEoI can be reached. Further information is provided below.

SANGs

4.43 The proposals for SANG creation and management within the FNPMP are considered to be sufficient to mitigate for adverse effects on integrity, either alone or in-combination with other plans and projects, provided that an appropriate level of funding and number of ranger staff are provided, as outlined below. Given the ecological sensitivities within the site and the surroundings, the SANGs have been designed to be more naturalistic than would normally be required and some areas of habitat are intended to be managed as wildlife refuges with limited public access. This reduces the amount of easily accessible open space; and for this reason it is considered important that the SANGs form part of the wider Fawley Nature Park, rather than being provided in isolation, to ensure that they are effective in mitigating adverse effects on integrity.

4.44 In addition, concerns have been raised by Natural England over the phasing of the SANGs delivery and the impact that the on-going development and quarry works may have on the attractiveness and accessibility of the Phase 1 SANG provision for visitors. This is particularly key for avoiding adverse effects on coastal habitats, as these areas are likely to draw a lot of attention from visitors. In response to this, additional areas of SANGs have been brought forward for delivery in Phase 1, to provide improved connectivity and provision, as shown in drawing D2502-L214 rev 04.

4.45 This additional information provides sufficient certainty that the SANGs will, in principle, function as intended in its role in avoiding and mitigating recreational effects which could otherwise lead to AEoI, subject to agreement of further details on design and phasing at the detailed design stage. This will need to include information on how the Phase 1 SANGs will be designed/managed to ensure that their attractiveness to visitors is not significantly compromised by the ongoing development and quarry work.

The FNPMP and MMP

4.46 The information provided in the FNPMP and MMP provides sufficient certainty that these measures will, in principle, function as intended in their contributory role in avoiding and mitigating recreational impacts which could otherwise lead to AEoI, subject to agreement of further details on design and phasing at the detailed design stage, subject to the matters raised below..

The Provision of Rangers

4.47 Concerns have been raised by Natural England, the NFDC and the RSPB over the proposed number of rangers who will be responsible for implementing the mitigation. A primary concern is that ranger teams work best in pairs and therefore a team of three reduces the effectiveness significantly. Furthermore, there is uncertainty as to whether this number of rangers would provide sufficient resources for delivering all relevant aspects of the mitigation to a standard that enables certainty in a conclusion of no adverse effects on integrity.

4.48 Following further correspondence between NFDC and the applicant³⁰, the following additional resources have been proposed, in addition to the three full-time rangers:

- The employment of a full-time apprentice ranger to work with the other three rangers making a four-person ranger team to operate across the Nature Park and Marine Management Plan area.
- Employment of a temporary seasonal ranger to assist the permanent ranger team.

4.49 The new proposals also include a commitment to ongoing monitoring and review of the level of staff, in consultation with the Nature Park Steering Group, as described in the Nature Park Management Plan.

4.50 These updated proposals are considered to provide sufficient staff resources, to ensure that the proposed mitigation role that they are intended to provide in avoiding AEoI as a result of recreational disturbance, either alone or in combination with other plans and projects, will be successfully delivered.

Section 106 Financial Contributions

4.51 The applicant is proposing to pay 75% of the standard rates of financial contribution to the Solent Recreation Mitigation Partnership (SRMP), secured through a Section 106 agreement. This reduction from the full contribution amount is

in recognition of the mitigation measures outlined above, including the provision of SANGs, rangers, the implementation of the FNPMP and MMP and the fact that these measures will involve the direct management of recreational activity within and adjacent to a small section of the Solent.

4.52 The main justifications for the reduction, as provided in the Shadow HRA and the supporting information provided by Jonathan Cox^{31,32,33}, are:

- Given that the proposed mitigation will involve the management of recreational activity within and adjacent to part of the Solent, there is some overlap between these measures and the strategic mitigation provided by SRMP.
- The majority of visitors to the coast travel a short distance and therefore the FNPMP and MMP will be providing mitigation in the core area of recreational pressure that will result from the development project.

4.53 The combination of these mitigation measures and a 75% financial contribution is considered to be sufficient to avoid AEoI, either alone or in combination with other plans and projects, to the Solent European sites both within and outside of the development project area.

Reduction in water quality within the Solent

Background

Section 9.5 of the Shadow HRA outlines how due to the nature and location of the development project, there is potential for the surrounding water quality to be impacted, primarily through wastewater. In the absence of mitigation, this is likely to result in adverse effects on integrity of the Solent and Southampton Water SPA and Ramsar Site and Solent Maritime SAC. Natural England therefore advised that the development project should achieve nutrient neutrality.

Mitigation and Avoidance

4.54 Following consultation with Natural England, the Fawley Waterside Strategy for Reaching Nutrient Neutrality has been provided in Appendix 6 of the Shadow HRA. The key elements of this strategy are:

- The creation of an interceptor wetland on the Stone Stream within the Cadland Estate. This is to be secured through the S.106 agreement and/or conditions attached to any planning permission.

³⁰ Jonathan Cox (3rd July 2020) Note on wardening and peregrine nesting compensation.

³¹ Jonathan Cox (19th June 2020) Fawley Waterside calculation of contribution to the New Forest Habitat Mitigation Scheme

³² Jonathan Cox (19th June 2020) Fawley Waterside calculation of contribution to the SRMP

³³ Jonathan Cox (6th July 2020) Nature conservation and Recreation benefits of the proposed Fawley Waterside Development

- The creation of a 10ha tidal creek within Tom Tiddlers Ground, which will adjust with sea level rise to maintain or increase saltmarsh extent over the next 80-100 years.
- The conversion of farmland to semi-natural habitats including woodland, acid grassland and heathland, as defined within the Nature Park Management Plan, to be regulated through the S.106 agreement.
- The removal of the existing consented wastewater treatment plant from within the former Power Station.
- In addition, any short falls in nutrient removal due to slower than predicted rates of wetland and saltmarsh establishment or other unforeseen delays will be offset through the planting of winter cover crops within the Cadland Estate.

Conclusions

4.55 Following a request for clarification on what baseline has been used for the quarry in calculating the nutrient budget, further information has been provided³⁴. In principle, based on the information that has been provided to date, the mitigation measures proposed are sufficient to achieve nitrogen neutrality, and therefore to avoid AEoI of the European sites, either alone or in-combination with other plans and projects, in relation to this matter. However, in line with Natural England's comments, this conclusion is based on further information being provided in relation to the Stone Stream, as outlined below.

4.56 In order to be able to conclude no adverse effects on integrity, there must be sufficient certainty that the Stone Stream wetland can be delivered as proposed and will fulfil the role for which it is intended. Whilst it is our conclusion that this feature can provide sufficient mitigation to ensure no adverse effects on integrity, this is dependent on the successful delivery of the stone stream. It is our understanding at this stage that this element of the application will require a separate planning application; and therefore, its delivery should be secured within the planning applications to which this HRA relates via a Grampian Condition.

4.57 In the event that the stone stream cannot be delivered, alternative means of mitigation will need to be provided to satisfy the Habitat Regulations, in reaching a conclusion on no adverse effects on integrity.

Hydrological impacts on intertidal marine habitats

Background

4.58 The intertidal mudflats and sheltered muddy gravels adjacent to the development site are qualifying features of the Solent Maritime SAC and provide habitat for the qualifying features (bird species and species assemblages) of the Solent and Southampton Water SPA and Ramsar Site. As such, any significant changes to these habitats has the potential to result in an adverse effect on integrity.

4.59 Section 9.6 of the Shadow HRA states that "Changes in the tidal prism or volume of water moving along the Fawley access channel as the new canal fills and empties with the tide could result in increased water velocity along the channel and hence increased rates of sediment erosion leading to the loss of the extent of intertidal mudflat. In addition, similar changes in the tidal prism will result from proposals to create a new intertidal creek within the Tom Tiddlers Ground. Occasional emptying or release of water from the proposed tidal lagoon could also result in short-term increases in flow velocities across the intertidal flats associated with the outfall culvert from the lagoon."

4.60 Hydrodynamic modelling was undertaken to determine the impact that the proposals will have on currents and sediment transport, (WSP, 2018)³⁵. Following comments from the Environment Agency, the RSPB and Kenneth Pye Associates, further assessment work was undertaken to increase confidence in the conclusions reached in the 2018 modelling (WSP, 2019)³⁶, particularly in relation to the harbour, canal, saline lagoon and tidal creek. The further assessment work supported the previous conclusions and clarified that the expected changes are minor (affecting any freshly consolidated finer sediment fractions only), temporary/short-term and highly localised.

4.61 The effect of sea level rise and coastal squeeze when combined with the development project was also raised by Natural England and the Environment Agency.

Mitigation and Avoidance

4.62 Further, more detailed hydromorphological modelling work will be undertaken to support the detailed design and reserved matters planning applications. A programme of monitoring work will also be implemented to ensure that the

³⁴ Jonathan Cox (13th July 2020) Note on Nutrient Budget and Quarry Restoration. Version 2.

³⁵ Ecospan (2018) Marine ecological surveys in support of the Fawley Waterside development project, Report No. 17-353. Ecospan Environmental Ltd. Report to WSP/Parsons Brinkerhoff.

³⁶ WSP (2019) Fawley Waterside: Tidal Creek Hydromorphology Supplementary Assessment'.

proposals develops in accordance with the modelled predictions.

Conclusions

4.63 It is considered that adverse effects on the integrity of the European sites as a result of hydromorphological impacts, either alone or in-combination with other plans and projects, can be avoided, subject to further information being provided at the detailed design stage. This information will need to include further hydromorphological modelling work and further refinement of the designs of the saline lagoon and sluices, the tidal creek, sea defences, the marina and boat channel.

4.64 In relation to sea level rise and coastal squeeze, the development will strengthen sea defences without resulting in a loss of European site habitat, which is in accordance with the Shoreline Management Plan (SMP) policy of 'Hold the Line'. In addition, the Section 3.2.4 of the Information for Appropriate Assessment of Proposed Development Report (May 2020) and Section 5.3.1.1 of the Fawley Nature Park Management Plan (April 2020) outline how the coastal grazing marsh within Tom Tiddlers Ground SINC will be designed with diffuse borders, thereby enabling inland coastal migration to offset any saltmarsh losses as a result of sea level rise and coastal squeeze. As such, the proposals are considered to be robust and sufficient to avoid adverse effects on integrity resulting, either alone or in-combination with other plans and projects.

The River Itchen SAC, the Solent Maritime SAC and the Solent and Southampton Water Ramsar site

Disturbance to migratory fish from noise and vibration

Background

4.65 Southampton Water provides an important channel for migratory fish passage and is ecologically and hydrologically connected to a number of rivers, including the River Itchen SAC, which supports Annex II species (Atlantic salmon, river lamprey and sea lamprey). Noise disturbance to these migratory fish has the potential to impact on the estuarine habitats and fish populations, which are qualifying features of the River Itchen SAC, Solent Maritime SAC and Solent and Southampton Water Ramsar site.

Mitigation and Avoidance

4.66 In the event that impacts of noise on migrant fish are likely to occur, operational guidance and avoidance measures, such as ensuring sensitive periods of fish migration are avoided, will be employed.

Conclusions

4.67 The information in the Shadow HRA provides a robust rationale for why the potential for impacts to migrating fish is low and outlines the mitigation measures that will be implemented when needed. This information is sufficient to conclude no adverse effects on integrity of the European sites, either alone or in-combination with other plans and projects, in relation to this matter.

Chapter 5

Summary Conclusions

HRA Screening Summary Conclusions

5.1 The HRA screening of the development project, alone and in combination with other relevant plans and projects, was unable to rule the following types of likely significant effect on European sites:

The New Forest SAC, SPA and Ramsar site

- Recreation disturbance to birds and damage to habitats within the New Forest;
- Reduced air quality from increased traffic; and
- Road traffic accidents to New Forest livestock.

The Solent and Southampton Water SPA and Ramsar Site

- Direct loss of SPA supporting habitat;
- Boat disturbance to wintering waterfowl including recreation and commercial shipping movements;
- Cat predation of wintering waterfowl; and
- Noise disturbance to wintering waterfowl.

The Solent and Southampton Water SPA and Ramsar Site and the Solent Maritime SAC

- Recreation disturbance to birds and damage to coastal habitats in the Solent;
- Reduction in water quality within the Solent; and
- Hydrological impacts on intertidal marine habitats.

The River Itchen SAC, the Solent Maritime SAC and the Solent and Southampton Water Ramsar site

- Disturbance to migratory fish from noise and vibration.

Appropriate Assessment Summary Conclusions

5.2 An Appropriate Assessment was completed to determine whether the above effects would result in adverse effects on the integrity of a European site, either alone or in combination with other plans or projects. This assessment found that effective avoidance and reduction measures can be secured and delivered with sufficient certainty, and therefore **Fawley Waterside will not have an adverse effect on the integrity**

of any European site, either alone or in combination with other plans and projects. For many of the impact types identified, particularly in relation to recreational disturbance, there is a high degree of reliance on the combined effectiveness of a suite of measures acting in parallel. Therefore, it will be necessary for each of these measures to

function as intended, and for these to be secured, delivered and monitored successfully for the lifetime of the impact to ensure that no AEoI will result.

5.3 Further information is provided in **Table 5.1**.

Table 5.1: Summary of conclusions

Likely significant effect	Adverse Effect on Integrity - Conclusion
The New Forest SAC, SPA and Ramsar site	
Recreation disturbance to birds and damage to habitats within the New Forest	No adverse effects on integrity, subject to the following: <ul style="list-style-type: none"> – Further information provided at the detailed design stage on how the Phase 1 SANGs will be designed/managed to ensure that their attractiveness to visitors is not significantly compromised by the ongoing development and quarry work – A financial contribution towards the on-going monitoring of the New Forest SAC, SPA and Ramsar Site and Ramsar site, constituting 100% of the standard rate in line with planning policy and the existing strategic approach to mitigation and avoidance, as part of a Section 106 agreement. – The provision of rangers, as outlined in Section 4.
Reduced air quality from increased traffic	No adverse effects on integrity
Road traffic accidents to New Forest livestock	No adverse effects on integrity
The Solent and Southampton Water SPA and Ramsar Site	
Direct loss of SPA supporting habitat	No adverse effects on integrity
Boat disturbance to wintering waterfowl including recreation and commercial shipping movements	No adverse effects on integrity
Cat predation of wintering waterfowl	No adverse effects on integrity, subject to the following further information being provided at the detailed design stage: <ul style="list-style-type: none"> – the detailed design of the Tom Tiddlers Ground habitats and the ditches and dykes, in order to ensure that cats are sufficiently deterred.
Noise disturbance to wintering waterfowl	No adverse effects on integrity
The Solent and Southampton Water SPA and Ramsar Site and the Solent Maritime SAC	
Recreation disturbance to birds and damage to coastal habitats in the Solent	No adverse effects on integrity, subject to the following: <ul style="list-style-type: none"> – Further information provided at the detailed design stage on how the Phase 1 SANGs will be designed/managed to ensure that their attractiveness to visitors is not significantly compromised by the ongoing development and quarry work – A financial contribution to the Solent Recreation Mitigation Partnership (SRMP) of 75% of the standard rates, secured through Section 106 agreements

Likely significant effect	Adverse Effect on Integrity - Conclusion
	<ul style="list-style-type: none"> – The provision of rangers, as outlined in Section 4.
Reduction in water quality within the Solent	No adverse effects on integrity, subject to the Stone Stream wetland being delivered as proposed.
Hydrological impacts on intertidal marine habitats	No adverse effects on integrity, subject to the following further information being provided at the detailed design stage: <ul style="list-style-type: none"> – further hydromorphological modelling work and further refinement of the designs of the saline lagoon and sluices, the tidal creek, sea defences, the marina and boat channel
The River Itchen SAC, the Solent Maritime SAC and the Solent and Southampton Water Ramsar site	
Disturbance to migratory fish from noise and vibration	No adverse effects on integrity

Appendix A

Review Matrix

Table A.1: Review matrix of final consultation comments provided in 2020

Consultee	Final consultation comments provided in 2020	Review of the applicant's response
Section 1. Visitor surveys		
	No further matters raised.	
Section 2. Matters relating specifically to Tom Tiddlers SINC		
	No further matters raised.	
Section 3. Land-based recreational disturbance		
<p>a) New Forest District Council (NFDC)</p> <p>6th February 2020</p>	<p>Some comments relating to footpaths have already been relayed to you. In terms of SANG phasing, your phase 1-3 plan is showing different proposals to the drawing D2502-L214 rev 01 that was submitted in November. This change needs justification. There is a concern that by not bringing forward the Fawley SANG link, connectivity to the Ashlett SANG will be much weaker, which would be a concern.</p> <p>The proposed tidal creek should be marked more clearly on the plans so that we can understand how it relates to the proposed footpath routes. As submitted, it appears as if part of the southern footpath link would be within the proposed tidal creek.</p> <p>The mechanism by which existing public footpaths are to be diverted requires clarification.</p> <p>We have already made some comment on the nature of the droveway. In terms of phasing, it would be logical to bring the droveway to the west of the B3053 forward as part of Phase 4 (rather than later) to provide appropriate connectivity to the droveway on the east side of the road.</p>	<p>Section 4.3.4 of the Fawley Nature Park Management Plan (April 2020) outlines how the Fawley SANG link will be provided as part of Phase 1 to improve connectivity between the Ashlett Green and Tom Tiddlers SANGs. This description of phasing matches Figures A4.4 and A4.5 within the Information for Appropriate Assessment of Proposed Development Report (May 2020) and drawing D2502-L214 rev 01 that was submitted in November. However, it does not match the naming shown in Figure 4 in the Fawley Nature Park Management Plan. This requires clarification.</p> <p>The Fawley Waterside – Clarifications prepared by Deloitte on 30th June 2020 confirm that footpath diversions shown on the plans are illustrative. Any diversion would need to be dealt with through a separate legal process which is outside of the outline planning applications.</p> <p>In summary, provided that the SANG phasing is delivered in line with drawing D2502-L214 rev 01, the competent authority can have sufficient certainty that adverse effects on integrity can be avoided, subject to further information being provided at detailed design stage.</p>
<p>b) Natural England</p> <p>22nd June 2020</p>	<p>In our previous response on this application we raised concerns over the phasing of the SANG delivery. We note that the first phase of development will be within the housing development in the New Forest DC area. The applicant has proposed that the first phase of SANGs available will be Tom Tiddlers, Fawley South, Fawley Link and Ashlett Green. The Fawley South, Fawley Link and Ashlett Green sites are adjacent to phase 2 and 3 development areas and the gravel workings site, that is proposed to form Fawley SANG – Central. The appropriate assessment has not assessed the impact that the proposed continuing development may have on the attractiveness of the SANG delivery. These</p>	<p>At this stage the competent authority can have sufficient certainty that adverse effects on integrity can be avoided, subject to further information being provided at detailed design stage.</p>

	impacts should be considered on the short and longer-term effectiveness of the SANGs on offer and their ability to meet the criteria of your SPD. We emphasise our previous comments that further thought should be given to walking times, ease of access and quality of experience. We note that access to the wider Nature Park is past the gravel workings and that assessment of the accessibility of the Nature Park and the additional mitigation benefits it will bring should be considered as part of the phasing assessment.	
Section 4. Water-based recreational and commercial disturbance		
a) NFDC 6 th February 2020	An initial round of comments were provided on the Marine Management Plan in February 2020. These raised a number of issues and requests for clarification, which are summarised below: <ul style="list-style-type: none"> Clarity on the extent of the geographical area to which the MMP applies and concern raised over the inclusion of an 'optional additional area'. Inclusion of land within New Forest District Council's ownership. References made to sections of coastline that are outside of the MMP areas that are defined on the plan. A vagueness to some of the proposals. Concern over whether the appointment of a single coastal ranger and marina manager would be sufficient to secure the effective implementation of the management plan. A recommendation to see more information on enforcement mechanisms, monitoring and a suitable monitoring feedback loop. 	The information provided is sufficient to conclude no adverse effects on integrity in relation to this matter, provided that appropriate funding and wardening is put in place.
b) Natural England 22 nd June 2020	To ensure no alone adverse impact, mitigation measures to address impacts from increased recreation along the shoreline on intertidal habitats and those supporting habitats used by SPA birds for resting and feeding will need to be delivered. Natural England welcomes the measures set out in the Marine Management Plan to address these and provided you are satisfied that they can be secured in perpetuity we are satisfied with the proposals providing appropriate mitigation at this site.	The information provided is sufficient to conclude no adverse effects on integrity in relation to this matter, provided that appropriate funding and wardening is put in place.
Section 5. Managing and maintaining mitigation and enhancement measures in perpetuity		
a) Natural England 9 th July 2020	Natural England welcomes the inclusion of an additional ranger to implement delivery of the SANGs management and Nature Park and Marine Management Plans, and welcome that this post will be an apprenticeship post. We note that the review of the wardening levels will form part of the remit of the Nature Park Steering Group and provided this new level of provision and review is secured with the planning application we are satisfied with this increased level of onsite mitigation and raise no further questions on it.	These updated proposals are considered to provide sufficient staff resources, to ensure that the proposed mitigation can be adequately implemented in order to avoid adverse effects on integrity. This will need to be secured, delivered, monitored and managed effectively for as long at the effect on the designated sites remain.
b) Natural England	Clarification on how the level of wardening has been calculated and how this will be reviewed and amended throughout the lifetime of the development:	Uncertainty remains as to whether three wardens would be sufficient to avoid adverse effects on integrity.

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<p>22nd June 2020</p>	<p>The applicant has proposed three wardens will be employed to deliver the management plan for the Nature Park, SANGs and deliver the Marine Management Plan. Natural England would like further evidence on the justification for this number of wardens as appropriate to deliver the breadth of work needed to manage and mitigate impacts at the site for both the designated sites. Anecdotal evidence from the existing New Forest mitigation scheme suggests that working in rangers need to work in pairs when providing engagement work. We recommend that consideration is given on how this may limit the effectiveness of a three-person team.</p> <p>As mentioned above Natural England has concerns that a warden team of three is not sufficient to enable delivery of the Nature Park, SANG and Marine Management Plan. You will need to ensure you are satisfied with the level of wardening to be provided and that there are adequate measures to enable the number of wardens to be reviewed and amended throughout the lifetime of the development.</p>	<p>Following further correspondence between NFDC and the applicant (Note on wardening and peregrine nesting compensation. Jonathan Cox, 3rd July 2020), the following additional resources have been proposed, in addition to the three full-time rangers:</p> <ul style="list-style-type: none"> – The employment of a full-time apprentice ranger to work with the other three rangers making a four-person ranger team to operate across the Nature Park and Marine Management Plan area. – Employment of a temporary seasonal ranger to assist the permanent ranger team. <p>These updated proposals are considered to provide sufficient staff resources, to ensure that the proposed mitigation can be adequately implemented in order to avoid adverse effects on integrity.</p>
<p>c) Natural England 22nd June 2020</p>	<p>We would welcome close working between the proposed warden team on the Fawley site with the wider New Forest mitigation officers from the NPA and District Council teams. Efforts should be sought for joint training and to ensure that monitoring standards are such that any information gathered is to the same parameters to ensure it can be combined.</p> <p>We recommend that the warden team work closely with the wider Bird Aware warden team to share learning and ensure a consistent message for recreational users across the Solent designated sites.</p>	<p>We are in agreement on this point with Natural England. The information provided is sufficient to conclude no adverse effects on integrity in relation to this matter, provided that appropriate funding and wardening is put in place, as outlined above.</p>
<p>d) RSPB 24th June 2020</p>	<p>We are not currently able to provide detailed comments due to staffing constraints, but we do have some comments to make.</p> <p>Along with others, we have had subsequent discussions with the applicant concerning these matters and note that additional information and clarification has been presented in the recently submitted application documents. We remain concerned however over the reliance on a diverse and extensive suite of mitigation measures to avoid harm, these will need to be successfully delivered, managed and monitored over the lifetime of the development to ensure their effectiveness and the avoidance of harm to statutorily protected sites.</p>	<p>Agreed that the extensive suite of mitigation measures proposed to avoid harm, will need to be successfully delivered, managed and monitored over the lifetime of the development to ensure their effectiveness and the avoidance of harm to statutorily protected sites, notwithstanding those issues detailed herein where further information or clarity is required to enable certainty in a conclusion of no adverse effect on integrity.</p>
<p>Section 6. Strategic financial contributions</p>		
<p>a) Natural England 9th July 2020</p>	<p>We note that the commuted sum payment has been calculated to cover a period of 120 years. Our opinion is that this approach is appropriate and an acceptable approach to calculating such figures but we would note that the expectation is that the monitoring and management will continue for as long as the impact on the designated sites remain. This expectation also relates to the retaining of the SANGs and wider nature park access and management proposals.</p> <p>Thank you for updating us on your ongoing conversations with the applicants regarding contributions to the relevant strategic mitigation schemes for mitigating in combination effects of the proposed development. We have nothing further to add to our previous comments on these contributions at this time. Please note our previous advice that your</p>	<p>The information provided is sufficient to conclude no adverse effects on integrity in relation to this matter, provided that appropriate funding is put in place and the mitigation proposed is secured, delivered, monitored and managed effectively for as long as the effect on the designated sites remain.</p>

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	Appropriate Assessment should set out the level of contributions that will be collected for each scheme. Any deviation from using the most up to date strategy rates would need to be fully justified and evidence based.	
b) NFDC 10 th June 2020	<p>We have carefully considered your proposals to seek a discount in respect of the Solent Recreation Mitigation Contribution. You point out that you have developed a comprehensive package of mitigation proposals to offset the impacts of the proposed development on the coast between Fawley and Calshot. This includes the implementation of a Marine Management Plan in conjunction with Hampshire County Council and the employment of a team of three Rangers to cover the management of the proposed Nature Park, including the coast. You have calculated that the management of the SANG will be in the order of £70,000 for the employment of one full time equivalent member of staff, and you suggest that the additional 2 rangers will cost a further £140,000 per annum to be funded through an annual levy on the occupants of the new development. You believe that most of this additional ranger effort would be expended on management of coastal access, and therefore take the view that the development would be contributing up to £1.4 million to the management of coastal access over a 10 year period, which is well in excess of the required Solent Mitigation Contribution. Nevertheless, you acknowledge that a proportion of residents will visit areas of the coastline not covered by the Fawley Waterside rangers, but have suggested that the vast majority of visits would be within 5km of the development site, which you say would be within most of the sphere of the Fawley Rangers. You suggest that any impact beyond 5km of the site will be small and definitely no more than 25% of the total impact. You are therefore proposing to pay 25% of the Solent Recreation Mitigation Contribution.</p> <p>In response, we accept that your proposals to employ a team of 3 rangers and to implement a Marine Management Plan will to a small degree offset the policy requirement for the development's impact on the Solent and Southampton Water European sites to be mitigated (in part) through payment of the Solent Recreation Mitigation Contribution. However, it is important that the precautionary principle is applied when considering any possible discount, and in this respect we have a number of concerns. Firstly, we would have to question whether 2 of your ranger team will be employed full time on management of coastal access. The ranger team will be managing the full 275 hectares of the Nature Park, most of which does not have coastal access. Management of the SANGS and wider Nature Park will, we suspect, demand a significant proportion of the ranger resource. (It is perhaps worth highlighting that if the SANGs were to be transferred to the Local Planning Authorities, then we would be seeking a maintenance contribution of in excess of £3 million.) Secondly, the Marine Management Plan covers an area of coastline between the existing access channel and Calshot Spit that is less than 1.5km from North to South. The sphere of influence that would be secured through the Marine Management Plan would therefore be much less than the 5km sphere that you have referred to. Also, the Solent Recreation Mitigation Contribution is designed to mitigate recreational impacts covering the full extent of the designated Solent area of which your area of control will form just a very small part. It is worth noting that the Bird Aware Strategy refers to a 250km section of coastline. Therefore, we cannot accept your suggestion to pay only 25% of the required contribution. We will to some extent need to be guided by Natural England and our own ecological advisors but, to be clear, our expectation is that the vast majority of the Solent Recreation Mitigation Contribution needs to be paid. We would ask you to review your position, making it clear to you that if we are to accept any discount at all, then we must come to an agreed position before both our Committee reports and the Appropriate Assessment are finalised.</p>	<p>Uncertainty remains as to whether the proposed level of strategic contribution payments are sufficient to ensure that funding is available to implement the mitigation measures and avoid adverse effects on integrity.</p> <p>Further clarification is required from the applicant which provides certainty that the proposed levels of funding contributions are acceptable. Or a commitment to providing the full contribution in line with planning policy.</p>
c) Natural England 22 nd June 2020	The draft section 106 agreement includes measures to secure the delivery of the wider Nature Park and its monitoring and management. We welcome the Nature Park Conservation Action Plan delivery and maintenance forming part of the s106 agreement and that public access will be secured across this landscape in perpetuity.	See 6a above.

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<p>d) Natural England 22nd June 2020</p>	<p>The site is adjacent to the New Forest SSSI which is also designated as The New Forest SAC, SPA and Ramsar. Your authority has a supplementary planning document (SPD) to mitigate against adverse effects from recreational disturbance on the European sites. We welcome the commitment from the applicant to provide mitigation through delivery of SANGs and a contribution towards monitoring and access management on the New Forest. Natural England advises that your AA should set out the level of contributions that will be collected in this case and that these are in line with your most up to date rates in your planning policy guidance.</p>	<p>See 6a above.</p>
<p>e) Natural England 22nd June 2020</p>	<p>Natural England is aware that your authority has an SPD to mitigate against adverse effects from recreational disturbance on the European sites. Subject to the appropriate financial contribution being secured, Natural England is satisfied that the proposal will mitigate against the in combination recreational impacts of the development on the site(s). Our advice is that this needs to be confirmed by the Council, as the competent authority, via an appropriate assessment to ensure there is no adverse effect on the integrity of the site(s) in accordance with the Conservation of Habitats & Species Regulations 2017.</p> <p>Natural England advise that the Appropriate Assessment sets out the level of contributions that will be collected in this case. Please note that Natural England's own legal advice is that the Appropriate Assessment needs to include the new Bird Aware Solent Definitive Strategy Rates which came into force on 1st April 2020. In our view any deviation from the agreed SRMP would need to be fully justified and evidenced based.</p>	<p>See 6a above.</p>
<p>Section 7. Hydromorphology</p>		
<p>a) Natural England 22nd June 2020</p>	<p>Natural England welcomes the additional information that has been provided by the applicant that has addressed the majority of points raised in our previous response.</p> <p>The expansion of the dock, creation of the canal in addition to the creation of the tidal creek could all potentially have an impact on the designated intertidal habitats of the Solent Maritime SAC which are supporting features for the Solent and Southampton Water SPA. Natural England welcomes the further detail provided on this aspect of the application. We would welcome the opportunity to comment further on the design at the detailed design application stage.</p>	<p>We are in agreement with Natural England and consider the measures outlined in the Marine Management Plan (May 2020) as sufficient to avoid adverse effects on integrity, provided that appropriate funding is put in place to ensure that the plan is implemented and maintained in perpetuity. At this stage, the competent authority can have sufficient certainty that adverse effects on integrity can be avoided, subject to further information being provided at detailed design stage.</p>
<p>b) Natural England 22nd June 2020</p>	<p>The expansion of the harbour and the potential increase of water-based recreation as a result of the development may, without mitigation, result in 'loss' of and or change to the fronting intertidal habitat. Increased current speeds, velocity and sediment mobility will change the habitat at the mouth of the harbour, and also at the mouth of the tidal creek.</p> <p>Natural England welcomes and supports the measures set out in the Marine Management Plan to mitigate these potential impacts and the setting up of a liaison group to oversee and influence the work undertaken to mitigate recreational impacts.</p>	<p>As noted above, at this stage, the competent authority can have sufficient certainty that adverse effects on integrity can be avoided, subject to further information being provided at detailed design stage.</p>
<p>c) Natural England 5th August 2019</p>	<p>Impacts on Solent & Southampton Water SPA and Ramsar and Solent Maritime SAC from habitat loss of intertidal habitats as a result of sea level rise and coastal squeeze: the current Shoreline Management Plan for this area is to hold the line. We accept that the proposals within this outline application are in line with this policy and therefore, provided the new defences themselves will not result in any direct loss of designated site, any indirect impacts on habitat as a result of coastal squeeze and sea level rise have been considered and compensated within the</p>	<p>We are in agreement with Natural England in respect of sea level rise and coastal squeeze. Section 3.2.4 of the Information for Appropriate Assessment of Proposed Development Report (May 2020) and Section 5.3.1.1 of the Fawley Nature Park Management Plan (April 2020) outline how the coastal grazing marsh within Tom Tiddlers Ground SINC will be designed with diffuse borders, thereby enabling</p>

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<p>And restated on 22nd June 2020</p>	<p>Environment Agency's Regional Habitat Compensation Scheme. In this instance we would have no further comments to make regarding this part of the application</p>	<p>inland coastal migration to offset any saltmarsh losses as a result of sea level rise and coastal squeeze. As noted above, at this stage, the competent authority can have sufficient certainty that adverse effects on integrity can be avoided, subject to further information being provided at detailed design stage.</p>
<p>d) The Environment Agency 25th June 2020</p>	<p>Following the submission of additional information, we can confirm that we are able to remove our previous objections subject to conditions (Further information on this response is provided in the Environment Agency's response letter).</p>	<p>As noted above, at this stage, the competent authority can have sufficient certainty that adverse effects on integrity can be avoided, subject to further information being provided at detailed design stage.</p>
<p>e) The Environment Agency 25th June 2020</p>	<p>We understand that there will be no dredging or marine disposal associated with the proposed development of the canal and harbour as these areas have existing concrete/hard bottoms. The entrance channel to the development is already maintenance-dredged periodically, and the current proposals do not include any changes to this operation.</p>	<p>As noted above, at this stage, the competent authority can have sufficient certainty that adverse effects on integrity can be avoided, subject to further information being provided at detailed design stage.</p>
<p>f) The Environment Agency 25th June 2020</p>	<p>We note that water quality impacts are not anticipated in relation to surface water discharges into the canal and harbour. The WFD assessment confirms that "drainage from the proposed development will include water and sediment quality control measures to prevent any deterioration in water quality" and that " as part of the Drainage Strategy, a number of pollution control measures have been implemented in line with the CIRIA SuDS Manual (C753) which will control the influx of fine sediments and associated contaminants which may adversely affect water clarity, nutrients or microbial patterns. Currently there are limited measures in place, so localised benefits to sediment and water quality are anticipated. Increased surface water discharge into the canal is unlikely to affect temperature, salinity or oxygen levels within Southampton Water."</p>	<p>As noted above, at this stage, the competent authority can have sufficient certainty that adverse effects on integrity can be avoided, subject to further information being provided at detailed design stage.</p>
<p>g) The Environment Agency 25th June 2020</p>	<p>We believe that the proposed lagoon/creek has the potential to deliver significant biodiversity gains. However, this will only be realised via continued robust design, good implementation, and appropriate long-term management, underpinned by monitoring.</p> <p>We welcome the future steps proposed for detailed design, management and monitoring, as summarised under 12.7.33 and 12.7.34 of the Environmental Statement (ES) chapter 12.</p> <p>We are in broad agreement with the lagoon perimeters as set out in Appendix 12.2 of the ES. We would welcome the opportunity to further comment on the lagoon design at detailed design. As per section 3 of Appendix 12.2, we would advise that the minimum size of the lagoon should be no less than 7ha. This is to ensure the lagoon can meet the design objectives, and provide sufficient space to accommodate the design characteristics that have been identified to provide suitable habitat for the target species.</p>	<p>As noted above, at this stage, the competent authority can have sufficient certainty that adverse effects on integrity can be avoided, subject to further information being provided at detailed design stage.</p>

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<p>h) The Environment Agency 25th June 2020</p>	<p>We would advise that recreational boating poses a risk to water quality through the discharge of untreated effluent into waterbodies. This risks causing a deterioration of the WFD water body status through impacting on designated bathing and shellfish waters. Any deterioration to water body status is contrary to the WFD's no deterioration in status' objective. We would therefore advise the Applicant to consider the installation of sewage pump out facilities as part of the canal and harbour development, to reduce the risk to water quality from recreational boating. The size of the pump out facility should be appropriate to that of the development.</p>	<p>As noted above, at this stage, the competent authority can have sufficient certainty that adverse effects on integrity can be avoided, subject to further information being provided at detailed design stage.</p>
<p>i) RSPB 24th June 2020</p>	<p>On the specific issue of the impacts relating to the creation of the tidal creek and possible hydromorphological impacts, we note the further assessment work submitted by the applicant, and we may seek our consultants' views (Ken Pye Associates) on this. We will provide any such further information to the applicant and local planning authority.</p>	<p>As noted above, at this stage, the competent authority can have sufficient certainty that adverse effects on integrity can be avoided, subject to further information being provided at detailed design stage.</p>
<p>Section 8. Nitrates and nutrient neutrality</p>		
<p>a) NFDC 6th February 2020</p>	<p><u>A Strategy for Reaching Nutrient Neutrality</u></p> <p>This is a complex matter, and we will obviously need to understand what Natural England's position is on your strategy, before being able to come to any definitive conclusions.</p> <p>We note that your strategy is now based on the following five measures:</p> <ul style="list-style-type: none"> • Land use change resulting from the quarry restoration and arable reversion • The Stone Stream wetland creation • The intertidal creek restoration • Winter Cover Crops (29 hectares) • Woodland creation from improved grassland (21 hectares) <p>The table at 4.2 indicates that the proposed Stone Stream wetland creation would be the most significant of the 5 measures, followed by the intertidal creek creation.</p> <p>In respect of the Stone Stream wetland creation, which would be outside of the application red-line areas and within the National Park, the strategy should provide clearer mapping to show where this area is situated (1). In principle, it is accepted that such a wetland creation could be a useful solution, because as well as having the potential to address nitrates, it would also provide some local habitat, albeit that it would be sub-optimal habitat, as it would be fed by poorer water quality. However, we need to understand what is proposed for this area much more clearly (2), and you need to be presenting a scheme with timelines for both its creation and for its functioning (3). Would the creation of a wetland here be feasible from a hydraulic / engineering / consenting point of view? (4) Would it require engineering works for which planning permission would be required? (5) What would the area look like? (6) Again, we await Natural England's consideration of this measure.</p>	<p>At this stage, the competent authority can have sufficient certainty that adverse effects on integrity can be avoided, subject to further information being provided at detailed design stage and subject to clarification of the matters raised below.</p>

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	<p>In respect of the tidal creek, we consider that you are being optimistic in your projections for how quickly the creek would establish and work effectively. We accept that pioneer species will have started to spread after 3 years, but biomass will take time to develop. (7)</p> <p>The land use change from the quarry conversion and arable conversion needs to be clearly mapped, so that we can understand the location of the 26.2 hectares that the report refers to. (8)</p> <p>Winter cover crops would seem capable of addressing shorter term deficits, but we need to consider how such measures would be monitored and enforced. (9)</p> <p>Overall, we are concerned that the combined measures that you are proposing are, at present, still too much a collection of ideas, rather than a firm set of proposals that have been worked up in the level of detail that will be necessary to show that they are deliverable and effective. To be absolutely clear, you need to provide fully worked up details of the proposed measures for securing nutrient neutrality, to include detailed and specific proposals for each of the measures, and timings for delivery and for becoming effective. (10) It is a fundamental requirement that you are able to fully demonstrate how you will achieve nitrate neutrality, and without this we are unable to make progress on moving the applications towards a Committee. Also, without this detailed information, we will be unable to conclude with certainty that the development will deliver nutrient neutrality.</p> <p>The detailed proposals for securing nutrient neutrality will ultimately need to be secured through the Section 106 legal agreement. (11)</p>	
<p>b) Natural England 22nd June 2020</p>	<p>Natural England welcomes the additional information that has been provided by the applicant that has addressed the majority of points raised in our previous response.</p> <p>The applicant has provided a detailed nutrient strategy that sets out how the development will be nutrient neutral at each stage of the development. Although Natural England is satisfied, based on the information provided, that the development can achieve nutrient neutrality for each stage of building we have the following comments to make.</p> <p>Stone stream wetland: It is unclear if the creation of this wetland will require a separate planning application. We are satisfied from the report produced for this scheme that the expected levels of nutrient removal could be achieved from the catchment. Within your AA you will need to be satisfied of its delivery and the impact that further planning requirements may have on your surety of its delivery.</p> <p>Land use change from quarry restoration: We understand that the restoration for the quarry is subject to a separate planning application to change the restoration from the current final restoration plan. We recommend that you take your own legal advice on what the baseline restoration land use is for the quarry to inform your AA.</p>	<p>We are in broad agreement with Natural England on this matter. In principle, the measures proposed in the Nitrogen Neutrality Strategy (May 2020) are sufficient to avoid adverse effects on integrity in relation to nitrogen neutrality.</p> <p>However, in order to be able to conclude no adverse effects on integrity, there must be sufficient certainty that the stone stream wetland can be delivered as proposed and will fulfil the role for which it is intended. It is our understanding at this stage that delivery of this element of the application will require a separate planning application; and therefore, whilst it is our conclusion that this feature can provide sufficient mitigation to ensure no adverse effects on integrity, this conclusion is dependent on the successful delivery of the stone stream.</p> <p>In the event that the stone stream cannot be delivered, alternative means of mitigation will need to be provided to satisfy the Habitat Regulations, in reaching a conclusion on no adverse effects on integrity.</p> <p>Further information is required to clarify what baseline is being used for the quarry restoration as part of the nutrient calculations.</p>

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<p>c) The Environment Agency 25th June 2020</p>	<p>Following the submission of additional information, we can confirm that we are able to remove our previous objections subject to conditions (Further information on this response is provided in the Environment Agency's response letter).</p>	<p>We are in broad agreement with Environment Agency on this matter. In principle, the measures proposed in the Nitrogen Neutrality Strategy (May 2020) are sufficient to avoid adverse effects on integrity in relation to nitrogen neutrality, subject to the matters raised above.</p>
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Table A.2: Review matrix of consultation comments provided in 2019

Consultee	Consultation comments provided in 2019	Review of the applicant's response based on the information currently available
Section 1. Visitor surveys		
<p>a) RSPB 13th June 2019</p>	<p>The visitor surveys in the Information for Appropriate Assessment (IAA) report are insufficient to predict the increase in visitor pressure to the designated sites (further detail on this comment is provided in RSPB's response letter dated 13th July 2019).</p>	<p>The information provided is sufficient to conclude no adverse effects on integrity in relation to this matter.</p>
Section 2. Matters relating specifically to Tom Tiddlers SINC		
<p>a) Natural England 5th August 2019</p>	<p>Natural England fully supports the proposals to create a saline lagoon and creek as part of the proposals and considers the measures will provide a significant enhancement for SPA birds within the locality. Further, provided it can be delivered and maintained in an appropriate way, and compensation for the loss of habitats within the SINC are secured, we believe it will contribute a substantive net gain for biodiversity.</p> <p>In order for the proposed lagoon to meet its potential you should consider the measures necessary for managing water levels and water quality within the lagoon.</p> <p>As the lagoon and creek features are not necessary as mitigation for impacts on the international sites it would be acceptable, provided sufficient detail is provided to rule out likely significant effects from construction and related hydro-morphological impacts, for the final detailed designs and management arrangements for the lagoon and creek to be agreed and implemented as a condition of any permission.</p>	<p>At this stage the competent authority can have sufficient certainty that adverse effects on integrity can be avoided, subject to further information being provided at detailed design stage.</p>
<p>b) Natural England 5th August 2019</p>	<p>We would also recommend that the lagoon and associated creek are established as a Nature Reserve, with provision provided for its ongoing management by an appropriate body.</p>	<p>The information provided is sufficient to conclude no adverse effects on integrity in relation to this matter.</p>

c) RSPB 13th June 2019	The IAA11 identifies the strip of grassland along the southern edge of Tom Tiddlers Ground as an important SPA supporting site for brent geese and waders (notably curlew). Although relatively modest numbers of these species were recorded during the Applicant's winter bird surveys (with peak counts of 98 brent geese and 38 curlew reported in the IAA), it is assumed the site has supported greater numbers and/or frequency of the SPA birds in the past, as it is identified as a "Core Site" (the top tier of site importance) in the current Solent Waders and Brent Goose Strategy (Area NF156B). The land to the north of this strip (Area NF156B) also identified as a "Primary Support Area" (second tier of site importance), suggesting that it also once had greater value to the SPA birds. However, no historic records have been presented by the Applicant to help understand the true past and potential future value of the land to the SPA species. Furthermore, we can find no clear proposals for how the SPA supporting function of this land will be retained or replaced.	The information provided is sufficient to conclude no adverse effects on integrity in relation to this matter.
d) RSPB 13th June 2019	There is confusion regarding the role of the proposed saline lagoon and tidal creek in respect of SPA mitigation.	The information provided is sufficient to conclude no adverse effects on integrity in relation to this matter.
Section 3. Land-based recreational disturbance		
a) Natural England 5th August 2019	Natural England has some concerns with the phasing of SANGs delivery alongside the development stages. In particular, currently the Ashlett Creek SANG is proposed to be the first SANG delivered but the first phase of development will be at the most southern end of the site which would require residents to walk past the ongoing development before reaching mitigation land, we would suggest that further thought is given to the phasing to ensure appropriate mitigation is given for each phase of development. We request that the applicant provides further detail for each development phase to show: <ul style="list-style-type: none"> • The amount of financial contribution towards New Forest and Solent mitigation funds. • The area of SANG provided, including an assessment of its appropriateness for mitigating that phase of development, e.g. looking at walking times, ease of access and quality of experience. • The number and role description of wardens – will they be employed from phase one or will the numbers increase with the phases of development? • What wider access and habitat improvements will be secured within the wider access land. • How each phase will reach nutrient neutrality (see further comments on nutrient neutrality in relevant section later in this letter). 	Further information required.
b) Natural England 5th August 2019	Due to the proximity of the site to the designated areas Natural England welcomes the approach taken by the applicant to provide the SANGs within a wider Nature Park and consider this element of the proposals key to support and better integrate the stand alone SANGs with the development and the wider landscape of the area. The wider nature park also provides an additional buffer between the development and the designated sites. It is our opinion that if the wider accessible landscape as described within the Nature Conservation and Access Plan (NCAP) is not secured then the SANGs, as designed, would not be as effective at mitigating adverse impacts.	Further information required.

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	Further information is required on the quantum and location of SANG provided for each phase of the development, including an assessment of the appropriateness of the SANG to be made available for mitigating that phase of development, e.g. looking at walking times, ease of access and quality of experience.	
c) Natural England 5 th August 2019	In relation to Tom Tiddlers SINC, details should be provided on how public access for bird watching will be incorporated into the design.	At this stage the competent authority can have sufficient certainty that adverse effects on integrity can be avoided, subject to further information being provided at detailed design stage.
d) RSPB 13 th June 2019	It has not been demonstrated that the proposed SANGs are fit for purpose (further detail on this comment is provided in RSPB's response letter dated 13 th July 2019).	Further information required.
e) RSPB 13 th June 2019	We note that the Fawley SANG will involve the phased restoration of areas of former arable land and minerals workings, which will clearly take time to mature into attractive landscapes. Furthermore, although not described in the IAA or Access and Nature Conservation Plan, it is understood that the minerals workings will continue beyond the first phases of SANG delivery and concurrent occupation of the new housing. Yet there appears to be no assessment of the potential effects of noise, dust or visual intrusions from the active quarry that may be experienced by people using the first phases of the Fawley SANG. It is important that the SANGs are attractive and also provide suitable footpaths with sensible walking circuits in these first stages of delivery, when access patterns of the first occupants of the new housing will become established. If the SANGs do not provide an attractive alternative to the designated sites from the outset it will be extremely difficult to change visitor behaviour at a later stage.	Further information required.
f) RSPB 13 th June 2019	The proposals include a number of access management measures that could play an important complementary role to the SANGs, thereby reducing recreational disturbance to the designated sites within the New Forest and Solent. However, on the whole, the measures are either poorly defined, fall short of what is required, or could themselves lead to increased impacts on the protected areas (further detail on this comment is provided in RSPB's response letter dated 13 th July 2019).	At this stage the competent authority can have sufficient certainty that adverse effects on integrity can be avoided, subject to further information being provided at detailed design stage.
g) RSPB 13 th June 2019	A possible issue is the close alignment of the SANGs with the lagoon and tidal creek and their associated protection. For new residents of the Fawley development, this may create the sense that they have a nature reserve on their doorstep and therefore it is not a suitable area for letting dogs off the lead etc.; particularly if the area is regularly attended by wardening staff. The following issues were also raised in relation to : the potential for disturbance to birds caused by the proximity of foot paths and houses and the risk of cat predation from neighbouring houses.	At this stage the competent authority can have sufficient certainty that adverse effects on integrity can be avoided, subject to further information being provided at detailed design stage.
h) RSPB 13 th June 2019	It is stated in a number of places that the SANGs will be managed by extensive livestock grazing, creating a similar environment to the New Forest. The RSPB has repeatedly raised concerns with the Applicant that, without providing any areas of SANGs that are free (temporarily or permanently) of livestock, many dog-walkers who cannot trust their dogs off lead around livestock will be displaced to alternative sites. Those sites could well include areas of SPA, SAC	The information provided is sufficient to conclude no adverse effects on integrity in relation to this matter.

	and Ramsar site that the SANGs are designed to draw people away from. As a minimum we strongly recommend that a system is in place to notify residents of areas of SANGs that are free from livestock grazing, temporally and/or spatially.	
Section 4. Water-based recreational and commercial disturbance		
a) NFDC 13 th November 2019	Marine Management Plan: this is an essential aspect of your development proposals that will need to be resolved if we are to be able to conclude that your development will not give rise to harmful recreational impacts on the adjacent Solent and Southampton Water European designated nature conservation sites. In the first instance, we need clarity on ownership of the intertidal and marine areas (to include a plan that we understand is being prepared), so that we can understand what can be controlled and where.	The information provided is sufficient to conclude no adverse effects on integrity in relation to this matter.
b) Natural England 5 th August 2019	Natural England supports the mitigation measures set out in section 9.4.4 and suggests that an Aquatic (Marine) Mitigation Management Plan is produced by the applicant to bring together the mitigation required to manage the different user groups within the aquatic environment from both the recreational and commercial sides and in conjunction with Hampshire County Council include the management of marine recreational activities based at Calshot Spit. The plan should include details of boat speed limits, bird refuge areas and zoning for different recreational uses and set out who will be responsible for monitoring and policing of recreational activities, how user conformity will be enforced, along with details of how these measures will be retained and funded for perpetuity.	The information provided is sufficient to conclude no adverse effects on integrity in relation to this matter.
c) RSPB 13 th June 2019	Far greater clarity and certainty is required regarding the impacts and mitigation of increased boat activities linked to the proposed development in order for the competent authorities to rule out adverse effects from boat disturbance on the integrity of the Solent and Southampton Water SPA and Ramsar site (further detail on this comment is provided in RSPB's response letter dated 13 th July 2019).	The information provided is sufficient to conclude no adverse effects on integrity in relation to this matter.
Section 5. Managing and maintaining mitigation and enhancement measures in perpetuity		
a) Natural England 5 th August 2019	Further information is requested as to the number and role description and responsibilities of the proposed wardens. To include details of who will employ them and when they will be employed (e.g. will they be employed from phase one or will the numbers increase with the phases of development?), how they will be funded for perpetuity, and how any permission will ensure the necessary level of wardening is retained for perpetuity.	Further information required.
b) Natural England 5 th August 2019	Natural England welcomes the Fawley Waterside Access and Nature Conservation Plan and considers the access and biodiversity enhancement measures within the wider estate as necessary for the delivery of an appropriate recreational mitigation strategy for the proposals. Further details are required on how the measures outlined in the plan will be delivered and secured for perpetuity.	The information provided is sufficient to conclude no adverse effects on integrity in relation to this matter.
c) Natural England 5 th August 2019	We would welcome some further clarification on how the elements of the Nature Conservation and Access Plan (NCAP) are to be secured in perpetuity. We understand that the plan is to form part of the section 106 agreement should the proposals be approved. We welcome the NCAP delivery and maintenance forming part of the s106 agreement we would like to see further clarity included in the plan to show what level of public access will be maintained across the landscape, how this will be secured and enforced and how it will be funded.	Further information required.

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d) RSPB 13 th June 2019	Wardens are proposed to manage public access and recreational use of the coastal zone. However, there is no information on how many 'full time equivalent' wardens will be employed, when they will work and how this wardening will be secured in-perpetuity.	Further information required.
Section 6. Strategic financial contributions		
a) NFDC 13 th November 2019	Contributions to Access Management and Monitoring of the New Forest European sites: Your position on this needs clarification. Our starting point is to secure what is required by policy. I would expressly refer you to New Forest District Council's 'Mitigation of Recreational Impacts SPD - dated June 2018 (draft)'. If you are not seeking to comply with policy, you need to demonstrate why, and we will need to consider your case.	Further information required.
b) NFDC 13 th November 2019	Contribution to Access Management of the Solent and Southampton Water European sites: You are still seeking to justify a rebate. To be clear, we cannot see a justification for this based on the case you have made to date and do not support this approach. Whilst discussions on the detailed wording of the Section 106 will be ongoing for some time after the amended package has been submitted, we need to try and lock down the Section 106 Heads of Terms as soon as we reasonably can. I would recommend that you submit an updated version of your Section 106 Heads of Terms letter with your amended application package.	Further information required.
c) Natural England 5 th August 2019	Confirmation is required on the final financial contribution towards New Forest and Solent mitigation funds and how payments will be phased with the development.	Further information required.
d) Natural England 5 th August 2019	We welcome the commitment to make a full contribution towards in combination mitigation as set out in the Solent Recreation Mitigation Strategy through the s106, although do not consider it appropriate to include reference to a potential reduction within the draft heads of terms document. Provided the full contribution is made in full prior to the occupation of the houses we are satisfied that in combination effects of this development with others around the Solent have been mitigated.	Further information required.
e) RSPB 13 th June 2019	We note the suggestion of a possible future (part) refund of the contribution that the Applicant intends to make to the Bird Aware Solent project. We do not consider this acceptable for a development of this scale and where there is such limited understanding of the likely spread of recreational use of the new residents across the Solent coast. We consider that the Applicant should make a full and permanent contribution. The RSPB considers that it is essential that the Applicant makes a full contribution to strategic wardening in the New Forest.	Further information required.
Section 7. Hydromorphology		

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a) NFDC 13 th November 2019	We note you have submitted a draft package of information to address concerns that have been raised previously. This is a technical area, and one where we will need to be guided by relevant consultees. You will need to be confident that the concerns of the key consultees have been adequately addressed before you formally submit the amended application package.	The information provided is sufficient to conclude no adverse effects on integrity in relation to this matter.
b) Natural England 5 th August 2019	The expansion of the dock, creation of the canal in addition to the creation of the tidal creek could all potentially have an impact on the designated intertidal habitats of the Solent Maritime SAC which are supporting features for the Solent and Southampton Water SPA. The applicant has submitted a report modelling impacts of the proposals. Natural England does not consider this report as currently submitted provides enough detail, particularly in regards to medium and long-term impacts, to fully inform an AA. However, we consider that it should be possible to avoid such impacts through careful design and are aware that the applicant is now addressing these issues.	At this stage the competent authority can have sufficient certainty that adverse effects on integrity can be avoided, subject to further information being provided at detailed design stage.
c) Natural England 5 th August 2019	At present the landscape plans show that a chalk bank will be created by the importation of chalk material. The soils of the New Forest are acidic in nature and therefore the landscape is one of plants associated with these acidic soils. We feel that a chalk bank would not be in keeping with the local character and also have concerns regarding impacts on nearby designated sites from alkaline ground water as a result of the proposed features. If this is to be included within the final landscape plan for the site there would need to be a detailed hydrological assessment of potential impacts on designated sites.	The Fawley Waterside – Clarifications prepared by Deloitte on 30th June 2020 confirm that a chalk bank is no longer proposed. Were this to be proposed in the future it would be subject to a separate planning application. The information provided is therefore sufficient to conclude no adverse effects on integrity in relation to this matter.
d) The Environment Agency 9 th July 2019	<p>The report has considered the changes in the tidal prism and volume of water moving along the proposed Fawley access channel as a result of the new canal filling and emptying with the tide. This could result in increased water velocity along the channel, and hence increased rates of sediment erosion leading to the loss of the extent of intertidal mudflat.</p> <p>The report briefly describes similar effects as a result of the creation of the saline lagoon on Tom Tiddlers, but states that due to anticipated relatively small discharge, impacts are unlikely. Whilst this may be logical, the details surrounding the lagoon is lacking and the conclusion lacks certainty. This requires clarification.</p>	At this stage the competent authority can have sufficient certainty that adverse effects on integrity can be avoided, subject to further information being provided at detailed design stage.
e) The Environment Agency 9 th July 2019	The report summarises information from the Coastal Environmental Model (ES – volume 2 – Appendix 12.4) and relied heavily on the results of the short-term modelling. Whilst we do not challenge the use of the DHI Mike21 modelling package, we believe the limitations of the methodology used to inform the assessment have not been explained sufficiently. The changes to hydrodynamic processes are discussed. However, the report then fails to relate this to the potential morphological change that may occur. The report lacks robust geomorphological assessment, and does not robustly explain the changes, especially over the medium and long term (3). Due to these concerns, we believe it is not possible to conclude at this time that the development will not result in a significant effect on the European protected marine sites. This requires further detail and clarification.	The information provided is sufficient to conclude no adverse effects on integrity in relation to this matter.
f) The Environment Agency	Paragraph 9.6.1 describes proposed additional modelling of potential impacts of the proposed creek on the hydrology of Calshot Marshes will be undertaken to validate this assessment, and a programme of monitoring implemented to ensure modelling follows predicted levels. This suggests a degree of uncertainty. It would be helpful to understand what additional work is proposed.	The information provided is sufficient to conclude no adverse effects on integrity in relation to this matter.

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9 th July 2019		
g) The Environment Agency 9 th July 2019	<p>Paragraph 12.7.37 of the ES identifies that increased vessel movements as a result of the proposed Canal and Harbour “have the potential to impact on the protected intertidal habitat by changing sedimentation patterns (scour/deposition) due to associated changes in currents (from vessel wake and propeller wash).”</p> <p>In paragraph 12.7.39, it is suggested that by restricting the speed of leisure craft to 6 knots, the impact of boat wake and propeller wash will be reduced to “acceptable levels.” The nature of “acceptable levels” is not specified, and no supporting evidence of the efficacy of such speed restrictions elsewhere within Southampton Water and the Solent is provided.</p>	The information provided is sufficient to conclude no adverse effects on integrity in relation to this matter.
h) The Environment Agency 9 th July 2019	The Coastal Squeeze Assessment Technical Note (WSP, 2018c) describes that proposed development facing Southampton Water is already protected by defences, and it is planned that these will be improved along essentially their existing footprint. This is consistent with the Shoreline Management Plan (SMP) policy of ‘Hold the Line’. What is not clear from the information provided is, will there be any encroachment from increased footprint of improved defences? Statements are made in the report concerning compensation being delivered by our Regional Habitat Creation Programme (RHCP). This is the agreed mechanism for delivering losses that will occur from policy decisions made under the SMP. The RHCP will not compensate for losses that occur at the scheme level i.e. construction of new or improved. This needs clarification. (1)	The information provided is sufficient to conclude no adverse effects on integrity in relation to this matter.
i) RSPB 13 th June 2019	RSPB have raised concerns about the long-term hydrological stability of the proposed tidal creek and impacts it could have on the adjacent SAC, SPA/Ramsar site. In addition, they are concerned that the saline lagoon will not perform to provide proposed objectives.	At this stage the competent authority can have sufficient certainty that adverse effects on integrity can be avoided, subject to further information being provided at detailed design stage.
j) RSPB 13 th June 2019	The assessment of potential effects of the proposed development on the marine hydrodynamic and sediment environment has relied very heavily on the results of short-term modelling using the DHI Mike21 modelling suite. While this software is widely used and well-respected, it primarily provides a useful tool for the assessment of baseline and potential post-development water level, flows, and potential patterns of bed sediment erosion / deposition. Such modelling cannot provide information about morphological changes which may occur in response to changed hydrodynamic processes over the medium to longer term.	The information provided is sufficient to conclude no adverse effects on integrity in relation to this matter.
k) RSPB 13 th June 2019	While the overall performance of the hydrodynamic model in replicating water levels and current speeds / direction within the open water environment can be regarded as ‘fit-for purpose’, the model grid has insufficiently high resolution to accurately replicate natural flows and sediment transport processes with the existing and proposed new tidal creeks. No model simulations of extreme tidal events appear to have been undertaken, very simplified assumptions have been made about bed sediment character and the transport / settling behaviour of suspended sediment, and the role of combined tidal flow and wave induced shear stresses on sediment erosion and dispersion has not been considered. As a result of these limitations, there are significant uncertainties regarding rates of sediment erosion and dispersion in the short, medium and longer term.	The information provided is sufficient to conclude no adverse effects on integrity in relation to this matter.

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l) RSPB 13 th June 2019	Assessment of short, medium and longer-term morphological changes requires the use of a number of complementary approaches, including simple modelling used on 'regime theory' type approaches, data analysis approaches, and expert geomorphological assessment. Such approaches have not to have been used to any significant degree in preparing the ES and the designs for the new habitat features (saline lagoon and tidal creek).	The information provided is sufficient to conclude no adverse effects on integrity in relation to this matter.
m) RSPB 13 th June 2019	In particular, the likely future evolution of the proposed new tidal creek system, the impact of it and the new canal and harbour on existing tidal flat / saltmarsh extent and quality, and the potentially dispersive behaviour of eroded sediment, have not been assessed in sufficient detail.	At this stage the competent authority can have sufficient certainty that adverse effects on integrity can be avoided, subject to further information being provided at detailed design stage.
n) RSPB 13 th June 2019	Based on the evidence presented, the possibility cannot be ruled out that the creation / modification of these features will have an adverse effect on the marine SAC and SPA features. Given the likely ebbdominant nature of the tidal regime within the proposed new tidal creek system, there is a high risk that a large proportion of eroded sediment from an enlarging saltmarsh creek network and fronting tidal flats will be transported in suspension towards the main low water channel and may be exported from Southampton Water into the Solent.	At this stage the competent authority can have sufficient certainty that adverse effects on integrity can be avoided, subject to further information being provided at detailed design stage.
o) RSPB 13 th June 2019	On the basis of this advice, the RSPB considers that without further modelling it will not be possible to rule out an adverse effect on the integrity of the Solent and Southampton Water SPA and Ramsar site, or of the Solent Maritime SAC.	At this stage the competent authority can have sufficient certainty that adverse effects on integrity can be avoided, subject to further information being provided at detailed design stage.
Section 8. Nitrates and nutrient neutrality		
a) NFDC 13 th November 2019	This remains a fundamental concern. You need to put forward a detailed strategy that satisfies both local authorities (and Natural England) that your proposed measures for achieving nitrate neutrality are appropriate, effective, deliverable and enforceable. Your most recent 'Note on Approach to achieving nutrient neutrality at Fawley Waterside' does not provide this strategy, and this issue remains one where considerable additional work is likely to be needed.	Further information required.
b) Natural England 5 th August 2019	<p>Natural England notes the applicant has made an assessment of impacts from waste water within the Information for Appropriate Assessment document. However, the approach adopted has taken account of the previous industrial use on the site. Natural England does not consider industrial or employment use should be factored into the calculation for either previous use or new uses included in the proposals.</p> <p>Since the application was submitted Natural England have produced an updated methodology to assess impacts of nitrates from new developments. You may wish to use the updated methodology within your own Appropriate Assessment.</p> <p>Natural England recommends that a revised nutrient budget is submitted with the application along with any measures necessary to ensure the scheme achieves nutrient neutrality throughout each phase of the development. Natural England would be happy to discuss potential additional mitigation measures in due course.</p>	Further information required.

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c) The Environment Agency 9 th July 2019	We welcome measures to achieve nutrient neutrality as set out in the submitted reports, the phased approach that is described may be logical but feels less than secure. The provision of tertiary treatment is described. This aspect of the proposal lack details and security with regards to it being delivered and likely success. This requires clarification.	Further information required.
d) The Environment Agency 9 th July 2019	The Saline Lagoon and Tidal Creek Outline Feasibility report (WSP (2018b)) provides a summary of the existing environmental conditions around Tom Tiddlers ground where it is proposed to create a saline lagoon. The information provided does not consider the potential issue of impounding nutrient rich water in the lagoon. It is not clear if this could result in localised impacts to the adjacent marine sites or hinder the success of the proposal. This requires clarification.	Further information required.

Appendix B

European Sites Information

Table B.1: European sites information

Site name Area, ha	Qualifying features and conservation objectives	Key vulnerabilities	Non-qualifying habitats and species upon which the qualifying habitats and/or species depend
<p>New Forest SAC/ SPA/ Ramsar - The New Forest is a large and complex ecosystem and one of the largest remaining relatively wild areas in the South of England attracting very large numbers of visitors each year.</p> <p>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.</p>			
<p>New Forest SAC (29,213.57 ha)</p>	<p><i>Qualifying features:</i></p> <ul style="list-style-type: none"> - H7140 Transition mires and quaking bogs - H7150 Depressions on peat substrates of the <i>Rhynchosporion</i> - H3110 Oligotrophic waters containing very few minerals of sandy plains (<i>Littorelletalia uniflorae</i>) - H3130 Oligotrophic to mesotrophic standing waters with vegetation of the <i>Littorelletea uniflorae</i> and/or of the <i>Isoëto-Nanojuncetea</i> - H4010 Northern Atlantic wet heaths with <i>Erica tetralix</i> - H4030 European dry heaths - H6410 <i>Molinia</i> meadows on calcareous, peaty or clayey-silt-laden soils (<i>Molinion caeruleae</i>) - H7230 Alkaline fens - H9120 Atlantic acidophilous beech forests with <i>Ilex</i> and sometimes also <i>Taxus</i> in the shrub layer (<i>Quercion roboripetraeae</i> or <i>Ilici-Fagenion</i>) 	<p><u>Drainage</u></p> <p>A legacy of 150 years of drainage of mires, wet heathlands, wet grasslands and streams to improve grazing has led to a loss of peat, reduction of habitat condition, bracken and scrub encroachment. A programme of restoration has been going on for the past 10 years and around 3500ha of mire and streams has been identified as still requiring restoration.</p> <p><u>Inappropriate Scrub Control</u></p> <p>Lack of management and grazing, and inappropriate drainage has led to the loss of open habitats through encroachment of scrub and secondary woodland.</p> <p><u>Fish Stocking</u></p> <p>Hatchet Pond, whilst not actively stocked, is managed as a coarse fishery including carp and bream. The common practice of ground baiting, which is popular with carp fisherman, can introduce nutrients and there may also be deliberate extra feeding to encourage growth of specimen sized fish. In addition, benthivorous fish contribute nutrient through their feeding habits. This has contributed to high turbidity and algal biomass putting the submerged flora at risk. Public disturbance and invasive species have also contributed to the declining condition of Hatchet Pond.</p> <p><u>Deer</u></p> <p>High levels of browsing prevent regeneration and cause a decline in the shrub and field layer of woodlands. The Forestry Commission and other landowners are actively managing the deer population</p>	<p>Natural England's Conservation Objectives: Supplementary Advice for this site³⁷ identify the following dependencies:</p> <p>The New Forest sits in the centre of a dip in the surrounding chalk known as the Hampshire Basin and comprises a series of eroded terraces of soft sedimentary clays and sands capped with flint gravel, brickearth and other superficial deposits. The Soils are mainly acid, poor in nutrients, susceptible to leaching and only slowly permeable with locally enriched areas. This great variation in its soils is reflected in the New Forest's distinctive vegetation. The habitats include lowland heath, valley and seepage step mire, or fen, and ancient pasture woodland, including riparian and bog woodland and a range of acid to neutral grasslands. These habitats support an exceptionally rich diversity of fauna and flora which for much of the site are dependent on traditional management practices of grazing through Rights of Common complemented by annual heathland burning and cutting programmes. These provide structural diversity and a range of niches for plants and animals to utilise.</p> <p>Changes in surrounding land-use may adversely (directly/indirectly) affect the functioning of qualifying features and its component species.</p> <ul style="list-style-type: none"> - For H3110 - The passage of common eels upstream into Hatchet Pond are being restricted by a sluice - For H3130 - Ponds are at risk from inputs and runoff from land adjacent to the SAC

³⁷ European Site Conservation Objectives: Supplementary advice on conserving and restoring site features the New Forest (SAC): <http://publications.naturalengland.org.uk/publication/5727577884852224>

Site name Area, ha	Qualifying features and conservation objectives	Key vulnerabilities	Non-qualifying habitats and species upon which the qualifying habitats and/or species depend
	<ul style="list-style-type: none"> – H9130 <i>Asperulo-Fagetum</i> beech forests <p>H9190 Old acidophilous oak woods with <i>Quercus robur</i> on sandy plains</p> <p><i>Conservation objectives:</i></p> <p>Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring:</p> <ul style="list-style-type: none"> – the extent and distribution of qualifying natural habitats and habitats of qualifying species; – the structure and function (including typical species) of qualifying natural habitats; – the structure and function of the habitats of qualifying species; – the supporting processes on which qualifying natural habitats and the habitats of qualifying species rely; – the populations of qualifying species; and <p>the distribution of qualifying species within the site.</p>	<p>and cooperating with existing strategies but levels are still perceived to be high.</p> <p><u>Air Pollution: impact of atmospheric nitrogen deposition</u></p> <p>Air pollution impacts on vegetation diversity. Aerial deposits of nitrogen may exceed the threshold limits above which the quality and character of vegetation begins to be altered and adversely impacted. This could potentially lead to a loss or change of habitat type which in turn will impact on species reliant on that habitat.</p> <p><u>Public Access/Disturbance</u></p> <p>The New Forest attracts high numbers of visitors annually and there is an assumption that disturbance affects SAC habitats through erosion, compaction and damage to vegetation and water bodies. Investigation into understanding the impact of recreation is required and recreation should be managed to minimise the impact and protect the European features. Hatchet pond attracts high numbers of visitors, walkers along the shoreline have eroded the banks and introduced sediment into the water, this together with feeding of birds and fishing activities has polluted the water and put the habitat at risk. Many of the 10 designated campsites within the New Forest are located in sensitive areas and have impoverished vegetation due to trampling and infrastructure. Sites in or adjacent to pasture woodland in particular are likely to progressively decline due to the impact on tree regeneration, levels of dead wood, lichens and ground flora.</p> <p><u>Change in land management</u></p> <p>Restoration of conifer plantation to heathland and grassland habitats is taking place throughout the New Forest on private land, on the adjacent commons and on the Crown Lands where the Verderers Enclosures are being returned to open forest. Following initial felling there is often extensive regeneration of conifer which requires management. Lack of funds for follow-up management could lead to a failure of the restoration.</p> <p><u>Water Pollution</u></p> <p>Many villages have properties that are not on mains sewerage and have domestic treatment units which discharge into ditches and</p>	<p>Stream and river catchments extend beyond the boundary of the site and water quality and availability can be impacted by changes anywhere within the catchment. Changes outside of the site can affect the hydrological regime within the site and have significant implications for the assemblage of characteristic plants and animals present. Off-site land use change driven by the planning process or caused by other activities such as agriculture, recreational demands, or infrastructure provision need to take account of this connectivity and not be to the detriment of the ongoing structure and function of the habitats on-site. Consideration needs to be given to both direct and in-direct impacts on the SAC features</p>

Site name Area, ha	Qualifying features and conservation objectives	Key vulnerabilities	Non-qualifying habitats and species upon which the qualifying habitats and/or species depend
		<p>streams that are either within or flow into the SAC. The ditches and streams have seasonal flow and this in combination with a number of properties all discharging into the same channel could lead to an increase in nutrient levels impacting on the habitats they flow through, reducing species richness and diversity.</p> <p><u>Forestry and woodland management</u></p> <p>Lack of management of woodlands in private ownership has led to loss of characteristic ground flora and shrubs and threat from non-natives such as scots pine, turkey oak and rhododendron. Artificial drainage can impact on wetter habitats leading to loss of sphagnum and bryophytes.</p> <p><u>Inappropriate ditch management</u></p> <p>Ditches alongside tracks, roads, private property and for forestry practices can impact on wet habitats which causes a loss or conversion of habitat. Drainage into streams and bogs can carry silt adding nutrients and negatively impacting on species relying on the low nutrient status of the habitats.</p> <p><u>Invasive species</u></p> <p>A wide range of non-native invasive species such as Crassula helmslii, parrots feather, pitcher plant, rhododendron, turkey oak and Himalayan balsam can be found within the SAC habitats of the New Forest. Many non-native species invade and out compete native species.</p> <p><u>Parking</u></p> <p>Much of the SAC is unfenced with open access and numerous roads crisscrossing the site. Although the area is well served by car parks, parking on the verges is common, this is a particular problem in villages with parking on verges outside properties, village greens and Manorial wastes. This leads to a loss of vegetation, compaction of the soil and pollution. There are a variety of solutions available but funding will be required.</p> <p><u>Inappropriate cutting/ mowing/ grazing</u></p>	

Site name Area, ha	Qualifying features and conservation objectives	Key vulnerabilities	Non-qualifying habitats and species upon which the qualifying habitats and/or species depend
		<p>Loss of traditional hay cutting, grazing and scrub management in privately owned meadows and heathlands leading to a loss or conversion of habitat.</p> <p>In addition, there has been a significant long-term reduction in grazing pressure through loss of communing, which could lead to scrub encroachment and loss of habitat diversity.</p> <p>Direct impact from 3rd party</p> <p>Private property owners modify verges which are SAC habitats outside of their ownership. Issues include: creating new drives; re-turfing; planting hedges; encroachment by moving boundaries, and storage of material and equipment.</p>	
<p>New Forest SPA (27,968.96 ha)</p>	<p><i>Qualifying features:</i></p> <ul style="list-style-type: none"> - A072(B) <i>Pernis apivorus</i>: European honey-buzzard - A082(NB) <i>Circus cyaneus</i>: Hen harrier - A099(B) <i>Falco subbuteo</i>: Eurasian hobby - A224(B) <i>Caprimulgus europaeus</i>: European nightjar - A246(B) <i>Lullula arborea</i>: Woodlark - A302(B) <i>Sylvia undata</i>: Dartford warbler - A314(B) <i>Phylloscopus sibilatrix</i>: Wood warbler <p><i>Conservation objectives:</i></p> <p>Ensure that the integrity of the site is maintained or restored as appropriate, and</p>	<p>Public Access/Disturbance</p> <p>The New Forest attracts high numbers of visitors annually and there is an assumption that disturbance affects the breeding success of SPA birds. The pressures are not fully understood but a recent study concluded that nightjar, woodlark and Dartford warbler densities are notably low compared with other large heathland areas such as the Dorset Heaths and Thames Basin Heaths. Investigation into understanding the impact of recreation is required and recreation should be managed to minimise the impact and protect the European designated features.</p> <p>Inappropriate scrub control</p> <p>Lack of management and grazing, and inappropriate drainage has led to the loss of open habitats through encroachment of scrub and secondary woodland with potential knock-on effects on the SPA bird species using these habitats.</p> <p>Air Pollution: impact of atmospheric nitrogen deposition</p> <p>Air pollution impacts on vegetation diversity. Aerial deposits of nitrogen may exceed the threshold limits above which the quality and character of vegetation begins to be altered and adversely</p>	<p>Natural England's Conservation Objectives: Supplementary Advice for this site³⁸ identify the following dependencies:</p> <p>The qualifying bird species of the SPA are dependent on the range of habitats at the site (as designated by the SAC). Within this SPA the principal habitats supporting these qualifying species are as follows:</p> <ul style="list-style-type: none"> - Dartford warbler: mature lowland heathland, generally with abundant stands of mature gorse, clear-felled coniferous plantation woodland being restored to heathland - Honey buzzard: woodland - Hobby: lowland heathland / woodland - Hen harrier: lowland heathland - Woodlark: lowland heathland, clear-felled coniferous plantation woodland being restored to heathland, grassland and lichen heath - Wood warbler: broad-leaved woodland

³⁸ European Site Conservation Objectives: Supplementary advice on conserving and restoring site features the New Forest (SPA): <http://publications.naturalengland.org.uk/publication/5816333400801280>

Site name Area, ha	Qualifying features and conservation objectives	Key vulnerabilities	Non-qualifying habitats and species upon which the qualifying habitats and/or species depend
	<p>ensure that the site contributes to achieving the aims of the Wild Birds Directive, by maintaining or restoring:</p> <ul style="list-style-type: none"> – the extent and distribution of the habitats of the qualifying features; – the structure and function of the habitats of the qualifying features; – the supporting processes on which the habitats of the qualifying features rely; – the population of each of the qualifying features; and <p>the distribution of the qualifying features within the site.</p>	<p>impacted. This could potentially lead to a loss or change of habitat type which in turn will impact on species reliant on that habitat.</p> <p><u>Change in land management</u></p> <p>Restoration of conifer plantation to heathland and grassland habitats is taking place throughout the New Forest on private land, on the adjacent commons and on the Crown Lands where the Verderers Inclosures are being returned to open forest. Following initial felling there is often extensive regeneration of conifer which requires management. Lack of funds for follow-up management could lead to a failure of the restoration with potential knock-on effects on the SPA birds that rely on open habitats.</p> <p><u>Inappropriate cutting/ mowing/ grazing</u></p> <p>Loss of traditional hay cutting, grazing and scrub management in privately owned meadows and heathlands leading to a loss or conversion of habitat with potential knock-on effects on the SPA birds that rely on open habitats.</p>	<ul style="list-style-type: none"> – Nightjar: lowland heathland, woodland edge, coppiced woodland and clear-felled coniferous plantation woodland being restored to heathland <p>The ability of many bird species to safely and successfully move to and from nesting, feeding and roosting areas is critical to their breeding success and to the adult fitness and survival. An open landscape may also be required to facilitate movement of birds between the SPA and any off-site supporting habitat.</p> <p>Honey buzzard, hobby, woodlark and nightjar are known to favour large areas of open terrain, largely free of obstructions, in and around its nesting, roosting and feeding areas. Often there is a need to maintain an unobstructed line of sight within nesting, feeding or roosting habitat to detect approaching predators, or to ensure visibility of displaying behaviour. The home range of breeding Honey buzzards can extend to several kilometres from its nesting area.</p> <p>The nightjar is insectivorous, feeding primarily on moths and beetles during the summer. The location of feeding areas which support the SPA's nightjar population is often not well understood and may require further studies or research. More generally, nightjars are known to forage in such habitats as open forest and heathland. This target will apply within the site boundary and where birds regularly move to and from off-site habitat where this is relevant. The foraging range of nightjar is known to extend up to several kilometres from their nest sites.</p> <p>Local populations of Dartford Warbler are subject to large variation in numbers in response to changing weather patterns and habitat structure. It is important that birds are able to move across the landscape and between patches of suitable habitat so they can re-colonise readily from strongholds. Habitat connectivity is particularly important for this species.</p>
<p>New Forest Ramsar (28,002.81 ha)</p>	<p><i>Qualifying features:</i></p> <p><u>Ramsar Criterion 1</u></p> <p>Valley mires and wet heaths are found throughout the site and are of outstanding</p>	<p><u>Commercial-scale forest exploitation</u></p> <p>No information available.</p> <p><u>Drainage/land-claim (unspecified)</u></p>	<p>See SAC and SPA, above</p>

Site name Area, ha	Qualifying features and conservation objectives	Key vulnerabilities	Non-qualifying habitats and species upon which the qualifying habitats and/or species depend
	<p>scientific interest. The mires and heaths are within catchments whose uncultivated and undeveloped state buffer the mires against adverse ecological change. This is the largest concentration of intact valley mires of their type in Britain.</p> <p><u>Ramsar Criterion 2</u></p> <p>The site supports a diverse assemblage of wetland plants and animals including several nationally rare species. Seven species of nationally rare plant are found on the site, as are at least 65 British Red Data Book species of invertebrate.</p> <p><u>Ramsar Criterion 3</u></p> <p>The mire habitats are of high ecological quality and diversity and have undisturbed transition zones. The invertebrate fauna of the site is important due to the concentration of rare and scarce wetland species. The whole site complex, with its examples of semi-natural habitats is essential to the genetic and ecological diversity of southern England.</p>	<p>No information available.</p> <p><u>Introduction/invasion of non-native plant species</u></p> <p>No information available.</p> <p><u>Recreational/tourism disturbance (unspecified)</u></p> <p>No information available.</p>	

Site name Area, ha	Qualifying features and conservation objectives	Key vulnerabilities	Non-qualifying habitats and species upon which the qualifying habitats and/or species depend
<p>Solent Maritime SAC - The Solent is a complex site encompassing a major estuarine system on the south coast of England. The Solent and its inlets are unique in Britain and Europe for their hydrographic regime with double tides, as well as for the complexity of the marine and estuarine habitats present within the area. Sediment habitats within the estuaries include extensive areas of intertidal mudflats, often supporting eelgrass <i>Zostera</i> spp. and green algae, saltmarshes and natural shoreline transitions, such as drift line vegetation. The SAC forms part of the Solent & Southampton Water SPA/Ramsar.</p> <p>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 <i>Spartina maritima</i>. The SAC contains rich intertidal mudflats, saltmarsh, shingle beaches and adjacent coastal habitats, including grazing marsh, reedbeds and damp woodland.</p>			

Site name Area, ha	Qualifying features and conservation objectives	Key vulnerabilities	Non-qualifying habitats and species upon which the qualifying habitats and/or species depend
<p>Solent Maritime SAC (11,243.12 ha)</p>	<p><i>Qualifying features:</i></p> <ul style="list-style-type: none"> - H1110 Sandbanks which are slightly covered by sea water all the time - H1320 <i>Spartina</i> swards (<i>Spartinion maritimae</i>) - H1330 Atlantic salt meadows (<i>Glauco-Puccinellietalia maritimae</i>) - S1016 <i>Vertigo moulinsiana</i>: Desmoulin's whorl snail - H1130 Estuaries - H1210 Annual vegetation of drift lines - H1220 Perennial vegetation of stony banks - H1140 Mudflats and sandflats not covered by seawater at low tide - H2120 Shifting dunes along the shoreline with <i>Ammophila arenaria</i> ("white dunes") - H1150 Coastal lagoons - H1310 <i>Salicornia</i> and other annuals colonising mud and sand <p><i>Conservation objectives:</i></p> <p>Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring:</p>	<p><u>Public Access/Disturbance</u></p> <p>Recreational activities can affect annual vegetation of drift lines (H1210) and the vegetation of stony banks (H1220).</p> <p><u>Coastal squeeze</u></p> <p>Habitats are being lost as they are squeezed between rising sea levels and hard coastal defences that are maintained. There is a direct impact due to loss of the SAC habitats such as saltmarsh. In some areas rising sea levels will result in coastal grasslands being lost to more saline grasslands. The habitats that are lost could be created elsewhere, but there is difficulty in finding suitable areas. The neutral grassland habitats will take a long time to create as mitigation, but intertidal habitat can be created relatively quickly. Current compensation provides required habitat for Epoch 1 of the Shoreline Management Plan 2, further investigation is required for Epoch 2 and 3. This project will utilise outputs from Shoreline Management Plans, the Environment Agency's Regional Habitat Creation Project and the New Forest District Council/Channel Coastal Observatory's Solent Dynamic Coast Project.</p> <p><u>Water pollution</u></p> <p>Water pollution affects a range of habitats at the site through eutrophication and toxicity. Sources include both point source discharges (including flood alleviation / storm discharges) and diffuse water pollution from agriculture / road runoff, as well as historic contamination of marine sediments, primarily from copper and Tributyltin (TBT). A position statement from the Environment Agency and Natural England on water quality in the Solent and housing growth confirms the need to control nitrogen inputs to the Solent from development growth. Environment Agency flood event discharge consents allow untreated waters to be discharged which end up in the SAC and are likely to have a negative impact. There is a threat of spillage from oil transportation and transfer and by the usage by ships and pilotage.</p> <p><u>Changes in species distributions</u></p> <p>Areas of saltmarsh are eroding and decreasing.</p>	<p>The qualifying habitats of the SAC are reliant a range of coastal factors, including salinity, sedimentation, tide, sea level, turbidity and elevation, which influence the interdependent intertidal, subtidal and terrestrial habitats. These factors influence the complex interdependent intertidal, subtidal and terrestrial habitats present along the coast.</p> <p>There are no Natural England Conservation Objectives: Supplementary Advice for this site.</p>

Site name Area, ha	Qualifying features and conservation objectives	Key vulnerabilities	Non-qualifying habitats and species upon which the qualifying habitats and/or species depend
	<ul style="list-style-type: none"> – the extent and distribution of qualifying natural habitats 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. 	<p><u>Climate change</u></p> <p>Climate change has resulted in rising sea level causing flooding to habitats.</p> <p><u>Change to site conditions</u></p> <p>There is an increasing loss of saltmarsh in much of the Solent for reasons unknown, and this needs to be investigated.</p> <p><u>Invasive species</u></p> <p>The highest risk pathways through which marine INNS are introduced and then spread have been identified as: commercial shipping (through release of ballast water, and biofouling on hulls); recreational boating (through biofouling on hulls); aquaculture (through contamination of imported or moved stock - or escaped stock in the case of the pacific oyster), and natural dispersal.</p> <p><u>Direct land take from development</u></p> <p>Private sea defences are causing disruption to the natural processes of allowing erosion to move sediments around the SAC.</p> <p><u>Change in land management</u></p> <p>Changes to land management are likely to occur in areas where tidal flaps/sluices are altered and this results in changes to water levels or salinity of that land. Some sluices are failing, which may also result in changes to water levels or salinity of land. Some ditches and drains are neglected and this can cause difficulties in land management, resulting in changes.</p> <p><u>Air Pollution</u></p> <p>Impact of atmospheric nitrogen deposition</p> <p>Nitrogen deposition exceeds site relevant critical loads. Locally observed effects are unknown.</p> <p><u>Hydrological changes</u></p> <p>Titchfield Haven has a high level of water abstraction licences - if all were used then water levels would be too low in the SAC.</p>	

Site name Area, ha	Qualifying features and conservation objectives	Key vulnerabilities	Non-qualifying habitats and species upon which the qualifying habitats and/or species depend
		<p>Percolation of sea water through sea walls is causing saline intrusion into non-saline grassland habitats and changing them.</p> <p><u>Direct impact from 3rd party</u></p> <p>Off-roading is causing damage to some areas of grassland. Private sea defences are causing disruption to the natural movement processes of natural materials along the coast. House boats are unlicensed and have the potential to cause damage to intertidal habitats. Fly grazing is causing issues affecting large areas of Chichester Harbour.</p> <p><u>Extraction: non-living resources</u></p> <p>Shingle extraction for aggregates may have an adverse impact upon intertidal fauna and flora and may affect the movement of coastal sediments that would in turn have an impact upon intertidal habitats.</p> <p><u>Other</u></p> <p>SAC boundary may not cover the extent of all Annex 1 and Annex 2 features and/or supporting habitats.</p>	

Site name Area, ha	Qualifying features and conservation objectives	Key vulnerabilities	Non-qualifying habitats and species upon which the qualifying habitats and/or species depend
<p>Solent and Southampton Water SPA/ Ramsar - The site comprises of estuaries and adjacent coastal habitats including intertidal flats, saline lagoons, shingle beaches, saltmarsh, reedbeds, damp woodland, and grazing marsh. The diversity of habitats support internationally important numbers of wintering waterfowl, important breeding gull and tern populations and an important assemblage of rare invertebrates and plants.</p>			
<p>Solent and Southampton Water SPA (5,401.12 ha)</p>	<p><i>Qualifying features:</i></p> <ul style="list-style-type: none"> - A046a(NB) <i>Branta bernicla bernicla</i>: Dark-bellied brent goose - A052(NB) <i>Anas crecca</i>: Eurasian teal - A156(NB) <i>Limosa limosa islandica</i>: Black-tailed godwit 	<p><u>Public Access/Disturbance</u></p> <p>Recreational activities can affect annual vegetation of drift lines (H1210) and the vegetation of stony banks (H1220).</p> <p><u>Coastal squeeze</u></p> <p>Habitats are being lost as they are squeezed between rising sea levels and hard coastal defences that are maintained. There is a direct impact due to loss of the SAC habitats such as saltmarsh. In some areas rising sea levels will result in coastal grasslands being</p>	<p>In general, the qualifying bird species of the SPA rely on:</p> <ul style="list-style-type: none"> - The site's ecosystem and hydrology as a whole - Maintenance of populations of species that they feed on - Off-site habitat, which provide foraging habitat for these species. - Open landscape with unobstructed line of sight within nesting, foraging or roosting habitat.

Site name Area, ha	Qualifying features and conservation objectives	Key vulnerabilities	Non-qualifying habitats and species upon which the qualifying habitats and/or species depend
	<ul style="list-style-type: none"> – Waterbird assemblage – A176(B) <i>Larus melanocephalus</i>: Mediterranean gull – A191(B) <i>Sterna sandvicensis</i>: Sandwich tern – A192(B) <i>Sterna dougallii</i>: Roseate tern – A193(B) <i>Sterna hirundo</i>: Common tern – A195(B) <i>Sterna albifrons</i>: Little tern – A137(NB) <i>Charadrius hiaticula</i>: Ringed plover <p><i>Conservation objectives:</i></p> <p>Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the aims of the Wild Birds Directive, by maintaining or restoring:</p> <ul style="list-style-type: none"> – the extent and distribution of the habitats of the qualifying features; – the structure and function of the habitats of the qualifying features; – the supporting processes on which the habitats of the qualifying features rely; – the population of each of the qualifying features; and – the distribution of the qualifying features within the site. 	<p>lost to more saline grasslands. The habitats that are lost could be created elsewhere, but there is difficulty in finding suitable areas. The neutral grassland habitats will take a long time to create as mitigation, but intertidal habitat can be created relatively quickly. Current compensation provides required habitat for Epoch 1 of the Shoreline Management Plan 2, further investigation is required for Epoch 2 and 3. This project will utilise outputs from Shoreline Management Plans, the Environment Agency's Regional Habitat Creation Project and the New Forest District Council/Channel Coastal Observatory's Solent Dynamic Coast Project.</p> <p><u>Fisheries: Commercial marine and estuarine</u></p> <p>Towed gear, hand gathering of shellfish, bait digging and aquaculture are the main fishery activities in this site.</p> <p><u>Water pollution</u></p> <p>Water pollution affects a range of habitats at the site through eutrophication and toxicity. Sources include both point source discharges (including flood alleviation / storm discharges) and diffuse water pollution from agriculture / road runoff, as well as historic contamination of marine sediments, primarily from copper and Tributyltin (TBT). A position statement from the Environment Agency and Natural England on water quality in the Solent and housing growth confirms the need to control nitrogen inputs to the Solent from development growth. Environment Agency flood event discharge consents allow untreated waters to be discharged which end up in the SAC and are likely to have a negative impact. There is a threat of spillage from oil transportation and transfer and by the usage by ships and pilotage.</p> <p><u>Changes in species distributions</u></p> <p>Areas of saltmarsh are eroding and decreasing.</p> <p><u>Climate change</u></p> <p>Climate change has resulted in rising sea level causing flooding to habitats.</p> <p><u>Change to site conditions</u></p>	<p>There are no Natural England Conservation Objectives: Supplementary Advice for this site.</p>

Site name Area, ha	Qualifying features and conservation objectives	Key vulnerabilities	Non-qualifying habitats and species upon which the qualifying habitats and/or species depend
		<p>There is an increasing loss of saltmarsh in much of the Solent for reasons unknown, and this needs to be investigated.</p> <p><u>Invasive species</u></p> <p>The highest risk pathways through which marine INNS are introduced and then spread have been identified as: commercial shipping (through release of ballast water, and biofouling on hulls); recreational boating (through biofouling on hulls); aquaculture (through contamination of imported or moved stock - or escaped stock in the case of the pacific oyster), and natural dispersal.</p> <p><u>Biological Resource Use</u></p> <p>Gull egg collecting occurs in some places, and wildfowling occurs in several places. These activities are likely to be disturbing to breeding and wintering birds even though they are licenced/consented at the moment.</p> <p><u>Change in land management</u></p> <p>Changes to land management are likely to occur in areas where tidal flaps/sluices are altered and this results in changes to water levels or salinity of that land. Some sluices are failing, which may also result in changes to water levels or salinity of land. Some ditches and drains are neglected and this can cause difficulties in land management, resulting in changes.</p> <p><u>Inappropriate pest control</u></p> <p>Predator control is decreasing, resulting in increased predation by foxes etc. and this is the likely cause of decrease in successful breeding of gulls and terns.</p> <p><u>Air Pollution</u></p> <p>Impact of atmospheric nitrogen deposition</p> <p>Nitrogen deposition exceeds site relevant critical loads. Locally observed effects are unknown.</p> <p><u>Direct impact from 3rd party</u></p> <p>Off-roading is causing damage to some areas of grassland. Private sea defences are causing disruption to the natural movement</p>	

Site name Area, ha	Qualifying features and conservation objectives	Key vulnerabilities	Non-qualifying habitats and species upon which the qualifying habitats and/or species depend
		<p>processes of natural materials along the coast. House boats are unlicensed and have the potential to cause damage to intertidal habitats. Fly grazing is causing issues affecting large areas of Chichester Harbour.</p> <p>Other</p> <p>SAC boundary may not cover the extent of all Annex 1 and Annex 2 features and/or supporting habitats.</p>	
<p>Solent and Southampton Water Ramsar (5,346.44 ha)</p>	<p><i>Qualifying features:</i></p> <p><u>Ramsar Criterion 1</u></p> <p>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.</p> <p><u>Ramsar Criterion 2</u></p> <p>The site supports an important assemblage of rare plants and invertebrates. At least 33 British Red Data Book invertebrates and at least eight British Red Data Book plants are represented on site.</p> <p><u>Ramsar Criterion 5</u></p> <p>Assemblages of international importance</p> <ul style="list-style-type: none"> - Species with peak counts in winter: 51343 waterfowl (5 year peak mean 1998/99-2002/2003) 	<p><u>Erosion</u></p> <p>Coastal Defence Strategies, regulation of private coastal defences, shoreline management plans.</p>	<p>In general, the qualifying bird species of the Ramsar site rely on:</p> <ul style="list-style-type: none"> - The site's ecosystem and hydrology as a whole - Maintenance of populations of species that they feed on - Off-site habitat, which provide foraging habitat for these species. - Open landscape with unobstructed line of sight within nesting, foraging or roosting habitat.

Site name Area, ha	Qualifying features and conservation objectives	Key vulnerabilities	Non-qualifying habitats and species upon which the qualifying habitats and/or species depend
	<p><u>Ramsar Criterion 6</u></p> <p>Species/populations occurring at levels of international importance.</p> <p>Qualifying Species/populations (as identified at designation):</p> <ul style="list-style-type: none"> – Species with peak counts in spring/autumn: Ringed plover <i>Charadrius hiaticula</i> – Species with peak counts in winter: Dark-bellied brent goose <i>Branta bernicla bernicla</i>, Eurasian teal <i>Anas crecca</i>, Black-tailed godwit <i>Limosa limosa islandica</i> 		

Site name Area, ha	Qualifying features and conservation objectives	Key vulnerabilities	Non-qualifying habitats and species upon which the qualifying habitats and/or species depend
<p>River Itchen SAC - The River Itchen is one of the `classic` chalk rivers of southern England, drawing most of its character from this geological stratum. The Itchen supports an abundant and exceptionally species rich aquatic flora. It has a primary notification for its river habitat, at SSSI level (chalk river type) and also under Habitats Directive Annex I (Code H3260, watercourses with <i>Ranunculion</i> and <i>Batrachion</i> vegetation). This habitat notification comprises the river channel, its banks and parts of its riparian zone. In addition, parts of the floodplain are notified for their wetland habitat, and the river discharges via Southampton Water into the Solent which has a range of habitat designations.</p>			
River Itchen SAC (303.98 ha)	<p><u>Qualifying features:</u></p> <ul style="list-style-type: none"> – H3260 Water courses of plain to montane levels with the <i>Ranunculion fluitantis</i> and <i>Callitriche-Batrachion</i> vegetation – S1044 Southern damselfly <i>Coenagrion mercuriale</i> 	<p><u>Water Pollution</u></p> <p>The Diffuse Water Pollution Plan identifies numerous issues with water quality, in addition to point sources from Waste Water Treatment Works. The Plan is a critical document to achieve favourable condition, and action-owners were consulted as part of the process of revising the plan. Pollution causes excessive algal growth, smothering macrophytes, and increased BOD, decreasing oxygen availability for spawning gravels used by salmon and trout.</p>	<p>Natural England's Conservation Objectives: Supplementary Advice for this site³⁹ identify the following dependencies:</p> <p>The Itchen is mainly spring-fed and has only a narrow range of seasonal variation in physical and chemical characteristics. The water is of high quality, being naturally base-rich and of great clarity; and its temperature is relatively constant, with dissolved oxygen levels at or near saturation. The majority of species are present throughout the system and downstream changes are less than in most other rivers. The river provides good water quality,</p>

³⁹ European Site Conservation Objectives: Supplementary advice on conserving and restoring site features River Itchen: <http://publications.naturalengland.org.uk/publication/5130124110331904>

Site name Area, ha	Qualifying features and conservation objectives	Key vulnerabilities	Non-qualifying habitats and species upon which the qualifying habitats and/or species depend
	<ul style="list-style-type: none"> – S1163 Bullhead <i>Cottus gobio</i> – S1092 White-clawed (or Atlantic stream) crayfish <i>Austropotamobius pallipes</i> – S1096 Brook lamprey <i>Lampetra planeri</i> – S1106 Atlantic salmon <i>Salmo salar</i> – S1355 Otter <i>Lutra lutra</i> <p><i>Conservation objectives:</i></p> <p>Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring:</p> <ul style="list-style-type: none"> – The extent and distribution of 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. 	<p>Reducing road run off can build on the existing Environment Agency and Highways Agency project assessing priority outfalls and use existing Memorandum of Understanding to highlight any known issues with trunk roads for potential remedial funding.</p> <p>Work is needed with the Environment Agency to quantify any impacts. Possible role for Test and Itchen Catchment Partnership (TICP) through the Catchment Action Plan, to focus on non-trunk roads with Hampshire County Council. Environment Agency (EA) Review of Consents (RoC) process has been completed, but phosphate standards used conform to previous Common Standards Monitoring (CSM) guidance (used for setting SSSI and SAC targets). There is a risk of permitting several years of non-compliance from affected discharges. Revised CSM targets may impact on all discharges.</p> <p><u>Physical modification</u></p> <p>A range of physical modifications affect the Annex I river habitat, which have adverse consequences for characteristic biological communities of the habitat including specifically notified species. Modifications include weirs and other in-channel structures causing impoundment, siltation and interruptions to biological movements, over-deepening, over-widening and straightening of channels, and bank re-sectioning and reinforcement.</p> <p><u>Siltation</u></p> <p>Siltation resulting from a variety of factors (direct inputs of silt into the system from land use, runoff from diffuse sources, deposition arising from impoundments and overwide channels) is a widespread problem affecting the Annex I river habitat, with consequences for macrophytes, southern damselfly habitat (where in ditches) and spawning gravels for fish.</p> <p><u>Overgrazing</u></p> <p>Impacts of over-grazing on river banks and wet meadow systems, removing riparian and meadow habitat and causing runoff into watercourses.</p>	<p>extensive beds of submerged plants that act as a refuge for fish species, and coarse sediments that are vital for spawning and juvenile development.</p> <p>The Itchen valley contains areas of fen, swamp and meadow supporting vegetation with diverse plant communities, some typically species-rich. Water courses, including meadow ditches, base-rich runnels and flushes in open areas, and small side-channels. The diverse and stable habitat conditions support the qualifying species.</p> <p>The characteristic biological communities of the site (including its qualifying species) are dependent on the integrity of sections of river channel, riparian areas, and transitional and marine waters that lie outside of the site boundary. Headwater areas and tributaries may not fall within the site boundary, yet a range of species characteristic of the site may use these areas for spawning and juvenile development and be critical for sustaining populations within the site. Fully developed riparian zones are essential to site integrity, yet part of this zone may lie outside of the site boundary, particularly if the river channel is operating under natural processes and moves laterally over time within the floodplain. The conditions experienced by long-distance migratory species (such as salmon, sea and river lampreys, allis and twaite shads and eels) outwith the site (through the saline transition zone, estuary, coastal waters and into the high seas) are critical to the well-being of populations within the site. Off-site influences that may impact on the well-being of the population within the site may include, but not limited to, entrainment, temperature, water quality, mortality from exploitation. The adjacent habitat is in hydrological continuity with the river. The river floodplain comprises characteristic vegetation types that reflect the natural variation in topographical and hydrological conditions. The fen habitats show characteristic zonations of vegetation types arising from hydrological factors and the zonation is not truncated or fragmented by land use or management factors.</p>

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		<p><u>Water abstraction</u></p> <p>Abstraction modifies the natural flow regime on which the Annex I river habitat depends for its proper functioning. Impacts may occur on habitat character and habitat extent, within the channel or in riparian wetland areas. All parts of the flow regime may be affected but low-to-intermediate flows are most likely to be significantly impacted. Abstraction should not impact on floodplain SAC features such as southern damselfly, as well as riverine features such as salmon. Effects on the habitat can have various effects on individual notified species. Activities outside of the SAC may also have detrimental impacts on site features and habitats. Natural England does not endorse any particular solution at this time.</p> <p><u>Inappropriate weed control</u></p> <p>Management of aquatic weed for fishery activities affects protected habitats e.g. <i>Ranunculus</i>. This activity is currently exempted under the OLDs list (Operations Likely to Damage), and the extent and level of impacts on the watercourse is not conclusively known.</p> <p><u>Hydrological changes</u></p> <p>Some locations on the floodplains are too dry, with reasons not clear - impacts on ditches (decreased flowing water) for southern damselfly and meadow flora.</p> <p><u>Inappropriate water levels</u></p> <p>Water levels are not appropriate. The Water Level Management Plan (Natural England with Environment Agency) agreed options to re-wet the floodplain, benefitting flora and connecting habitat for southern damselfly. These need re-appraisal and implementation where possible.</p> <p><u>Change in land management</u></p> <p>Risk of non-compliance with HLS agreements may be affecting water quality of the river and floodplain carriers.</p> <p><u>Inappropriate cutting/mowing</u></p> <p>There are some instances of inappropriate management of riverbanks, which impacts on marginal habitat, with consequences</p>	

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		<p>for riparian and in-channel biota. These affect the biota using the riparian zone directly, and the biota of the river channel in terms of reducing bankside cover and enhancing silt inputs. Better bankside management can help prevent runoff from adjacent fields into the river, protecting water quality.</p> <p><u>Invasive species</u></p> <p>The presence of signal crayfish in parts of the catchment is suspected posing a significant risk to the white-clawed crayfish population through crayfish plague. However, white-clawed crayfish populations are fragmented, and therefore direct impacts from signals are suspected not to be significant. Also, there are widespread issues with Himalayan and orange balsam along the riparian corridor but the extent of the problem is unknown.</p> <p><u>Undergrazing</u></p> <p>Undergrazing impacts on wet meadow systems, causing degradation of southern damselfly habitat in particular. Bridges are required to access and manage sites and prevent SAC condition to deteriorate. This requires special project funding, which is currently prohibited in HLS agreements.</p> <p><u>Inappropriate ditch management</u></p> <p>Some ditches are not managed, leading to reed encroachment, reducing flow and therefore prohibiting southern damselfly breeding habitat.</p> <p><u>Inappropriate scrub control</u></p> <p>Inappropriate scrub control impacts particularly around ditches for southern damselfly, where scrub shades some ditches, preventing growth of marginal plants for egg-laying, and reduce flow in ditches.</p> <p><u>Forestry and woodland management</u></p> <p>Some parts of channel are excessively shaded by wet woodland, impacting on the macrophyte community. The River Restoration Strategy identifies some stretches where excessive shading is causing a problem, but it is important to look at whole catchment, and assess against all SAC features when reviewing locations/actions. Some stretches may benefit from tree planting to</p>	

Appendix B
European Sites Information

Habitats Regulations Assessment: Fawley Waterside (19/00365)
July 2020

Site name Area, ha	Qualifying features and conservation objectives	Key vulnerabilities	Non-qualifying habitats and species upon which the qualifying habitats and/or species depend
		reduce water temperatures, particularly in light of climate change, but must again be carefully assessed.	