

Wareham Neighbourhood Plan Habitats Regulations Assessment

Regulation 15 Plan

Wareham Town Council

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Quality information

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1. Introduction

Background to the Project

- 1.1 AECOM has been appointed by Locality to assist in producing a report to inform Dorset Council's Habitats Regulations Assessment (HRA) of the potential effects of the Revised Wareham Neighbourhood Plan (January 2020) on the Natura 2000 Network and Ramsar sites. The objectives of the assessment are to:
- Identify any aspects of the Neighbourhood Plan that would cause an adverse effect on the integrity of Natura 2000 sites, otherwise known as European sites (Special Areas of Conservation (SACs), Special Protection Areas (SPAs), protected SPAs (pSPAs) and, as a matter of Government policy, Ramsar sites), either alone or in combination with other plans and projects; and
 - To advise on appropriate policy mechanisms for delivering mitigation where such effects were identified.
- 1.2 The HRA of the Wareham Neighbourhood Plan is required to determine if there are any realistic linking impact pathways present between a European site and the Neighbourhood Plan and where Likely Significant Effects cannot be screened out, an analysis to inform Appropriate Assessment to be undertaken to determine if adverse effects on the integrity of the European sites will occur as a result of the Neighbourhood Plan alone or in combination.

Purbeck Adopted Local Plan (2012)

- 1.3 Purbeck District Council adopted their Local Plan Part 1 in 2012. Dorset is now a unitary authority and Purbeck District Council no longer exists. However, Neighbourhood Plans are required to be in general conformity with the relevant adopted Local Plan, in this case the Purbeck Local Plan Part 1 (2012). The Adopted Local Plan Policy HS: Housing Supply, provides for 2,520 dwellings over the Plan Period of 2006 – 2027 to meet the needs, across the Plan area. Within Policy HS and Policy CEN: Central Purbeck, the central area (Wareham, Sandford, and Stoborough) have been allocated to receive 475 dwellings, of which the Local Plan Part 1 strategically allocates a 200-dwelling extension at Worgate Road in Wareham. Therefore, the Neighbourhood Plan is required to provide at least 200 further dwellings under the adopted Local Plan.
- 1.4 Policy CEN also states that *“New residential development will be expected to contribute towards mitigation measures for European Sites”*
- 1.5 As the Neighbourhood Plan is required to be in general conformity with the relevant policies of the Local Plan the Neighbourhood plan will conform to the following policies within the Adopted Local Plan Part 1:
- 1.6 Policy BIO: Biodiversity and Geodiversity: *“New development:*
- *Will need to ensure that there are no adverse effects upon the integrity of European protected sites (SPA, SAC, Ramsar, pSAC and pSPA).*
 - *Within the vicinity of areas that support national significant numbers of Annex 1 bird species (nightjar and woodlark), undertake a risk-based approach to ensure that there is no significant adverse effect upon these species and their habitats.”*
- 1.7 Policy DH: Dorset Heaths International Designations: *“Development will not be permitted unless it can be ascertained that it will not lead to any adverse effect upon the integrity, of the Dorset Heaths’ International designations.”* The policy applies restrictions up to 5 km distance from the SPA/SAC until such a time Dorset Heathlands Supplementary Planning Framework 2015-2020 SPD was completed. The Dorset Heathlands SPD was completed and published in 2015 and therefore supersedes measures within Policy DH.
- 1.8 Policy PH: Pool Harbour regarding Water Quality: *“New development may be required to incorporate measure to secure effective avoidance and mitigation of the potential adverse effects of nutrient loading on the ecological integrity of the Poole Harbour internationally designated sites.*

The council will work with neighbouring authorities, the Environment Agency, Wessex Water and Natural England, supported by other relevant stakeholders, to secure effective and deliverable mitigation, and mechanisms that will fund and enable implementation of these measures.

With regards to Recreational Pressure: *“The council will work with neighbouring local authorities, statutory bodies and land owners to manage shoreline access to Poole Harbour and implement the Poole Harbour Aquatic Management Plan to manage water-based activities.”*

Purbeck Submitted Local Plan (2018-2034)

1.9 Dorset Council are currently going through the Examination of the Purbeck Local Plan 2018 – 2034. If they continue with this submitted new Local Plan, then it will supersede the current Local Plan as the relevant local planning policy. Moreover, policies in emerging Local Plans are a material consideration. Therefore, it is prudent to take into consideration the emerging Local Plan for the area, should this be formally adopted following the Examination.

1.10 For Wareham the Emerging Local Plan states a “*minimum of 300 additional homes*” are to be provided during the Plan period (2018 – 2034). As such, the Wareham Neighbourhood Plan (Policy H1) provides a minimum of 300 net new dwellings.

1.11 The following policies in the Local Plan currently under Examination explicitly provide protection for European sites and builds on those within the Adopted Local Plan (2012):

- Policy E7: Conservation of protected sites:

‘Development will only be permitted where it would not lead to an adverse effect upon the integrity, either alone or in-combination, directly or indirectly, of nationally, European and internationally protected nature conservation sites.

The Council will determine applications adversely affecting these sites in accordance with the recommendation of the relevant assessments under the Habitats Regulations and Supplementary Planning Documents as appropriate.’

- Policy E8: Dorset heathlands:

‘Development will only be permitted where it would not lead to an adverse effect upon the integrity, either alone or in-combination, directly or indirectly, of heathlands protected at the national, European and international level for their biodiversity.

To ensure that sites are not harmed, residential development involving a net increase in dwellings or other uses such as tourist accommodation and equestrian-related development:

a. will not be permitted within 400 metres of heathland, as shown on the policies map, unless, as an exception, the type and occupier of residential development would not have an adverse effect upon the sites’ integrity (e.g. nursing homes such as those limited to advanced dementia and physical nursing needs); and

b. between 400 metres and 5km of heathland such development will provide mitigation in accordance with the advice set out in the Dorset Heathlands Supplementary Planning Framework 2015-2020 SPD or appropriate to the adverse effects identified.’

- Policy E9: Poole Harbour:

‘Proposals for development will not be permitted that would lead to any adverse effects upon the integrity, either alone or in combination directly or indirectly of the Poole Harbour SPA, SSSI and Ramsar site.

Nitrogen neutrality

Development proposals for any net increase in homes, tourist accommodation or a tourist attraction, will provide mitigation in accordance with the advice set out in The Nitrogen Reduction in Poole Harbour SPD, if the sewerage drains into the Poole Harbour catchment.

Recreational effects

The Council is working with the Borough of Poole to develop a Recreation in Poole Harbour SPD. Development proposals for any net increase in homes, tourist accommodation or a tourist attraction around the edges of the harbour (as defined in the SPD) will need to avoid or mitigate adverse impacts arising from recreational activity on Poole Harbour.'

Legislation

- 1.12 The need for HRA is set out within Article 6 of the EC Habitats Directive 1992 and interpreted into British law by the Conservation of Habitats & Species Regulations 2017 as amended).
- 1.13 The ultimate aim of the Habitats Directive is to “*maintain or restore, at favourable conservation status, natural habitats and species of wild fauna and flora of Community interest*” (Habitats Directive, Article 2(2)). This aim relates to habitats and species, not the European sites themselves, although the sites have a significant role in delivering favourable conservation status. European sites (also called Natura 2000 sites) can be defined as actual or proposed/candidate Special Areas of Conservation (SAC) or Special Protection Areas (SPA). It is also Government policy for sites designated under the Convention on Wetlands of International Importance (Ramsar sites) to be treated as having equivalent status to Natura 2000 sites.

Box 1: The legislative basis for Appropriate Assessment

Habitats Directive 1992

Article 6 (3) states that:

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

Conservation of Habitats and Species Regulations 2017 (as amended)

With specific reference to Neighbourhood Plans, Regulation 106(1) states that:

‘A qualifying body which submits a proposal for a neighbourhood development plan must provide such information as the competent authority [the Local Planning Authority] may reasonably require for the purposes of the assessment under regulation 105 [which sets out the formal process for determination of ‘likely significant effects’ and the ‘appropriate assessment’]...’.

- 1.14 It is therefore important to note that this report has two purposes:
- To assist the Qualifying Body (Wareham Town Council) in preparing their plan by recommending (where necessary) any adjustments required to protect European sites, thus making it more likely their plan will be deemed compliant with the Conservation of Habitats and Species Regulations 2017 (as amended); and
 - On behalf of the Qualifying Body, to assist the Local Planning Authority to discharge their duty under Regulation 105 (in their role as ‘plan-making authority’ within the meaning of that regulation) and Regulation 106 (in their role as ‘competent authority’).
- 1.15 As ‘competent authority’, the legal responsibility for ensuring that a decision of ‘likely significant effects’ is made, for ensuring an ‘appropriate assessment’ (where required) is undertaken, and for ensuring Natural England are consulted, falls on the local planning authority. However, they are entitled to request from the Qualifying Body the necessary information on which to base their judgment and that is a key purpose of this report.
- 1.16 The Habitats Regulations applies the precautionary principle to Natura 2000 sites (SAC and SPA). As a matter of UK Government policy, Ramsar sites are given equivalent status. For the purposes of this assessment candidate SACs (cSACs), proposed SPAs (pSPAs) and proposed Ramsar (pRamsar) sites

are all treated as fully designated sites. In this report we use the term “European designated sites” to refer collectively to the sites listed in this paragraph.

- 1.17 Plans and projects can only be permitted having ascertained that there will be no adverse effect on the integrity of the site(s) in question. This contrasts with the SEA Directive which does not prescribe how plan or programme proponents should respond to the findings of an environmental assessment; merely that the assessment findings (as documented in the ‘environmental report’) should be ‘taken into account’ during preparation of the plan or programme. In the case of the Habitats Directive, plans and projects may still be permitted if there are no alternatives to them and there are Imperative Reasons of Overriding Public Interest (IROPI) as to why they should go ahead. In such cases, compensation would be necessary to ensure the overall integrity of the site network.
- 1.18 There has also been a change (April 2018) as to which stage mitigation can be applied during a Habitats Regulations Assessment. The Court of Justice of the European Union published its ruling in the Case C323/17 (known as ‘People Over Wind’) with regards to the Habitats Directive. This judgement states that the Habitats Directive *"must be interpreted as meaning that, in order to determine whether it is necessary to carry out, subsequently, an appropriate assessment of the implications, for a site concerned, of a plan or project, it is not appropriate, at the screening stage, to take account of the measures intended to avoid or reduce the harmful effects of the plan or project on that site"*.
- 1.19 Over the years the phrase ‘Habitats Regulations Assessment’ has come into wide currency to describe the overall process set out in the Conservation of Habitats and Species Regulations from screening through to Imperative Reasons of Overriding Public Interest (IROPI). This has arisen in order to distinguish the process from the individual stage described in the law as an ‘Appropriate Assessment’. Throughout this report we use the term Habitats Regulations Assessment for the overall process.

Report Layout

- 1.20 **Chapter 2** of this report explains the process by which the HRA has been carried out. **Chapter 3** explores the relevant pathways of impact. **Chapter 4** summarises the Test of Likely Significant Effects of the policies and site allocations of the Plan considered ‘alone’ and ‘in-combination’. (The Test of Likely Significant Effects itself is undertaken in **Appendix C**). **Chapter 5** contains the Appropriate Assessment for any linking impact pathways that could not be screened out from potentially resulting in a Likely Significant Effect. **Chapter 6** contains the conclusion and a summary of recommendations.

Consultation

- 1.21 In July 2018, the Wareham Neighbourhood Plan Pre-Submission document was commented upon by Natural England¹. Natural England have also been consulted on the Jan 2020 Revised draft. This consultation response is taken into account in this HRA in determining Wareham Neighbourhood Plan’s conformity with the Habitats Directive.

¹ Correspondence with Natural England (13th July 2018) Planning consultation: Wareham Neighbourhood Plan Pre-submission May 2018. Location: Wareham, Dorset

2. Methodology

Introduction

- 2.1 This section sets out the approach and methodology for undertaking the Habitats Regulations Assessment (HRA). HRA itself operates independently from the Planning Policy system, being a legal requirement of a discrete Statutory Instrument. Therefore, there is no direct relationship to the National Planning Policy Framework (NPPF) and the 'Tests of Soundness'.

A Proportionate Assessment

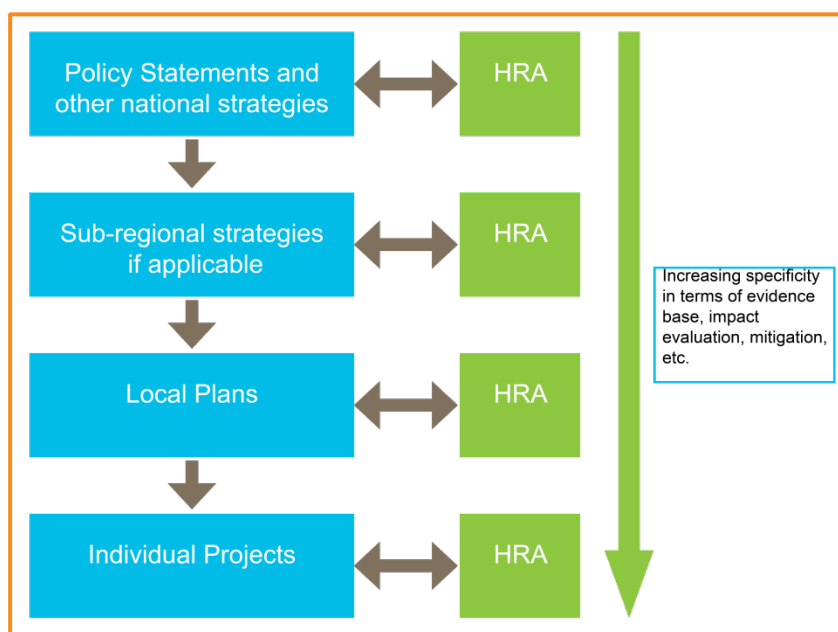
- 2.2 Project-related HRA often requires bespoke survey work and novel data generation in order to accurately determine the significance of effects. In other words, to look beyond the risk of an effect to a justified prediction of the actual likely effect and to the development of avoidance or mitigation measures.
- 2.3 However, the draft MHCLG guidance² (described in greater detail later in this chapter) makes it clear that when implementing HRA of land-use plans, the Appropriate Assessment (AA) should be undertaken at a level of detail that is appropriate and proportional to the level of detail provided within the plan itself:
- 2.4 *"The comprehensiveness of the [Appropriate] assessment work undertaken should be proportionate to the geographical scope of the option and the nature and extent of any effects identified. An AA need not be done in any more detail, or using more resources, than is useful for its purpose. It would be inappropriate and impracticable to assess the effects [of a strategic land use plan] in the degree of detail that would normally be required for the Environmental Impact Assessment (EIA) of a project."*
- 2.5 More recently, the Court of Appeal³ ruled that providing the Council (competent authority) was duly satisfied that proposed mitigation could be *"achieved in practice"* to satisfy that the proposed development would have no adverse effect, then this would suffice. This ruling has since been applied to a planning permission (rather than a Plan document)⁴. In this case the High Court ruled that for *"a multistage process, so long as there is sufficient information at any particular stage to enable the authority to be satisfied that the proposed mitigation can be achieved in practice it is not necessary for all matters concerning mitigation to be fully resolved before a decision maker is able to conclude that a development will satisfy the requirements of reg 61 of the Habitats Regulations"*.
- 2.6 In other words, there is a tacit acceptance that AA can be tiered and that all impacts are not necessarily appropriate for consideration to the same degree of detail at all tiers as illustrated in **Box 2**.

² MHCLG (2006) Planning for the Protection of European Sites, Consultation Paper

³ No Adastral New Town Ltd (NANT) v Suffolk Coastal District Council Court of Appeal, 17th February 2015

⁴ High Court case of R (Devon Wildlife Trust) v Teignbridge District Council, 28 July 2015

Box 2: Tiering in HRA of Land Use Plans



- 2.7 For a plan the level of detail concerning the developments that will be delivered is usually insufficient to make a highly detailed assessment of significance of effects. For example, precise and full determination of the impacts and significant effects of a new settlement will require extensive details concerning the design of the new housing sites, including layout of greenspace and type of development to be delivered in particular locations, yet these data will not be decided until subsequent stages.
- 2.8 The most robust and defensible approach to the absence of fine grain detail at this level is to make use of the precautionary principle. In other words, the plan is never given the benefit of the doubt (within the limits of reasonableness); it must be assumed that a policy/measure is likely to have an impact leading to a significant adverse effect upon an internationally designated site unless it can be clearly established otherwise.

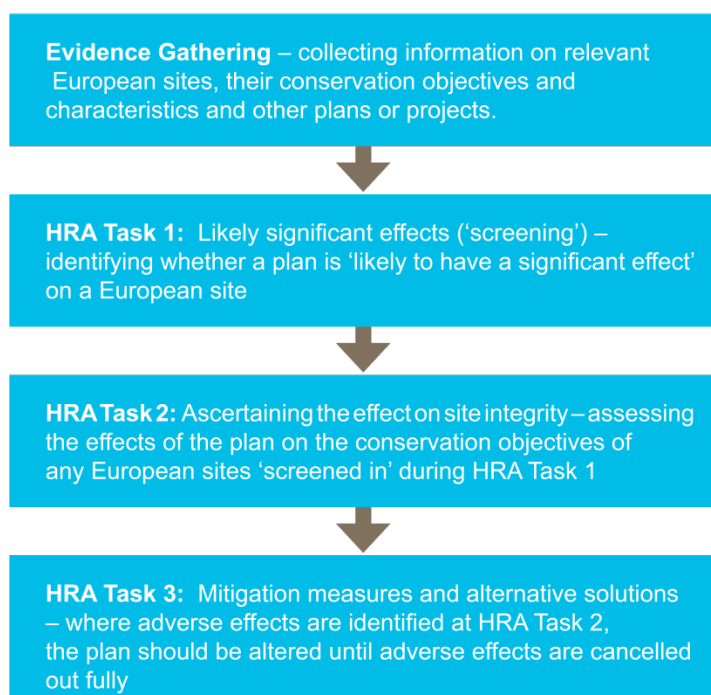
The Process of HRA

- 2.9 The HRA is being carried out in the continuing absence of formal central Government guidance. The former DCLG (now MHCLG) released a consultation paper on AA of Plans in 2006⁵. As yet, no further formal guidance has emerged from MHCLG. However, Natural England has produced its own informal internal guidance and central government have released general guidance on appropriate assessment⁶.
- 2.10 **Box 3** outlines the stages of HRA according to the draft MHCLG guidance (which, as government guidance applicable to English authorities is considered to take precedence over other sources of guidance). The stages are essentially iterative, being revisited as necessary in response to more detailed information, recommendations and any relevant changes to the plan until no likely significant effects remain.

⁵ MHCLG (2006) Planning for the Protection of European Sites, Consultation Paper

⁶ <https://www.gov.uk/guidance/appropriate-assessment>

Box 3: Four-Stage Approach to Habitats Regulations Assessment



2.11 The following process has been adopted for carrying out the subsequent stages of the HRA.

Task One: Test of Likely Significant Effect

- 2.12 The first stage of any Habitats Regulations Assessment is a test of Likely Significant Effect - essentially a high-level assessment to decide whether the full subsequent stage known as Appropriate Assessment is required. The essential question is:
- 2.13 *"Is the Plan, either alone or in combination with other relevant projects and plans, likely to result in a significant effect upon European sites?"*
- 2.14 In evaluating significance, AECOM have relied on professional judgment and experience of working with the other local authorities on similar issues. The level of detail concerning developments that will be permitted under land use plans is rarely sufficient to make a detailed quantification of effects. Therefore, a precautionary approach has been taken (in the absence of more precise data) assuming as the default position that if a likely significant effect (LSE) cannot be confidently ruled out, then the assessment must be taken the next level of assessment Task Two: Appropriate Assessment. This is in line with the April 2018 court ruling relating to 'People Over Wind' where mitigation and avoidance measures are to be included at the next stage of assessment.

Task Two: Appropriate Assessment

- 2.15 European Site(s) which have been 'screened in' during the previous Task have a detailed assessment undertaken on the effect of the policies on the European site(s) site integrity. Avoidance and mitigation measures to avoid adverse significant effects are taken into account or recommended where necessary.
- 2.16 As established by case law, 'appropriate assessment' is not a technical term; it simply means whatever further assessment is necessary to confirm whether there would be adverse effects on the integrity of any European sites that have not been dismissed at screening. Since it is not a technical term it has no firmly established methodology except that it essentially involves repeating the analysis for the likely significant effects stage, but to a greater level of detail on a smaller number of policies and sites, this time with a view to determining if there would be adverse effects on integrity.
- 2.17 One of the key considerations during Appropriate Assessment is whether there is available mitigation that would entirely address the potential effect. In practice, the Appropriate Assessment takes any policies or allocations that could not be dismissed following the high-level Screening analysis and analyse the

potential for an effect in more detail, with a view to concluding whether there would actually be an adverse effect on integrity (in other words, disruption of the coherent structure and function of the European site(s)).

The Scope

2.18 There is no guidance that dictates the physical scope of an HRA of a plan. Therefore, in considering the physical scope of the assessment we were guided primarily by the identified impact pathways rather than by arbitrary “zones”, i.e. a source-pathway-receptor approach. Current guidance suggests that the following European sites be included in the scope of assessment:

- All sites within the Neighbourhood Plan area boundary; and
- Other sites shown to be linked to development within the Neighbourhood Plan boundary through a known “pathway” (discussed below).

2.19 Briefly defined, pathways are routes by which a change in activity within the plan area can lead to an effect upon a European site. In terms of the second category of European site listed above, MHCLG guidance states that the AA should be “*proportionate to the geographical scope of the [plan policy]*” and that “*an AA need not be done in any more detail, or using more resources, than is useful for its purpose*” (MHCLG, 2006, p.67).

2.20 Locations of European designated sites are illustrated in **Appendix A, Figure A1**, and full details of all European designated sites discussed in this document can be found in **Appendix B**, specifying their qualifying features, conservation objectives and threats to integrity. Table 1 below lists all those European designated sites included in this HRA.

2.21 **Note** that the inclusion of a European sites or pathway below does not indicate that an effect is expected but rather that these are pathways that will be investigated.

Table 1: Physical Scope of the HRA

European Designated Site	Location	Reason for Inclusion (pressures/threats ⁸ associated with the European site that could link to the Plan.)
Dorset Heathlands SPA/Ramsar site	Within the Wareham Neighbourhood Plan area	<ul style="list-style-type: none"> – Disturbance and effects related to increased access and proximity to the sites (including urbanisation and recreational pressure) – Human induced changes in hydraulic conditions – Loss of functionally linked supporting habitat
Dorset Heaths SAC	Within the Wareham Neighbourhood Plan area	<ul style="list-style-type: none"> – Disturbance and effects related to increased access and proximity to the sites (including urbanisation and recreational pressure) – Human induced changes in hydraulic conditions
Poole Harbour SPA/Ramsar (including marine component)	Within the Wareham Neighbourhood Plan area	<ul style="list-style-type: none"> – Disturbance and effects related to increased access and proximity to the sites (including urbanisation and recreational pressure) – Human induced changes in hydraulic

⁷ Now MHCLG.

⁸ As identified in the Site Improvement Plans or RAMS for European sites.

European Designated Site	Location	Reason for Inclusion (pressures/threats ⁸ associated with the European site that could link to the Plan.)
		<p>conditions</p> <ul style="list-style-type: none"> – Loss of functionally linked supporting habitat – Effects of increased nutrients on the vegetation and prey composition
Isle of Portland to Studland Cliffs SAC	At its closest located 6.1km from the Wareham Neighbourhood Plan area.	<ul style="list-style-type: none"> – Disturbance and effects related to increased access and proximity to the sites (including urbanisation and recreational pressure) – –
Solent and Dorset Coast pSPA:	At its closest located 7.4km from the Wareham Neighbourhood Plan area.	The site is designated for foraging habitat for breeding Common tern, Sandwich tern and Little tern. Impact pathways associated with increased disturbance from marine activities such as shipping could result in a linking impact pathway. However, the Neighbourhood Plan does not identify any policies or allocations that would result in the intensification of shipping activities that could affect the pSPA. As such there are no linking impact pathways present and this European site is not subject to HRA within this document. Following consultation, Natural England agreed with this conclusion.
Studland to Portland SAC (marine component)	At its closest located 7.5km from the Wareham Neighbourhood Plan area.	<ul style="list-style-type: none"> – Disturbance and effects related to increased access and proximity to the sites (including urbanisation and recreational pressure)
Dorset Heaths (Purbeck and Wareham) and Studland Dunes SAC	At its closest located 8.3km from the Wareham Neighbourhood Plan area.	<ul style="list-style-type: none"> – Disturbance and effects related to increased access and proximity to the sites (including urbanisation and recreational pressure) – Loss of functionally linked supporting habitat –
St Alban's Head to Durlston Head SAC	At its closest located 10.6km from the Wareham Neighbourhood Plan area.	<ul style="list-style-type: none"> – Disturbance and effects related to increased access and proximity to the sites (including urbanisation and recreational pressure) – Loss of functionally linked supporting habitat for Greater Horseshoe bats

The “In Combination” Scope

- 2.22 It is a requirement of the Regulations that the impacts and effects of any land use plan being assessed are not considered alone but in combination with other plans and projects that may also be affecting the European designated site(s) in question.
- 2.23 When undertaking this part of the assessment it is essential to bear in mind the principal intention behind the legislation i.e. to ensure that those projects or plans which in themselves have minor impacts are not simply dismissed on that basis but are evaluated for any cumulative contribution they may make to an overall significant effect. In practice, in combination assessment is therefore of greatest relevance when the plan would otherwise be screened out because its individual contribution is inconsequential. The overall approach is to exclude the risk of there being unassessed likely significant effects in accordance with the precautionary principle. This was first established in the seminal Waddenzee⁹ case.
- 2.24 For the purposes of this assessment, we have determined that, due to the nature of the identified impacts, the key other plans and projects with potential for in combination likely significant effects are those schemes that have the following impact pathways: Disturbance (including urbanisation and recreational pressure), changes in hydraulic conditions and loss of functionally linked land. The following plans have been assessed for their in-combination impact to interact with the Neighbourhood Plan:
- Purbeck District Council Local Plan Part 1 (adopted 2012)
 - Purbeck District Council Local Plan (2018-2034) Pre-Submission Draft (at the time of writing this was subject to Examination)
 - Wessex Water (2019). Final Water Resources Management Plan; and,
 - Wessex Water (2018) Drought Plan.
- 2.25 It should be noted that, while the broad potential impacts of these other projects and plans will be considered, we do not propose carrying out full HRA on each of these plans – we will however draw upon existing HRA that have been carried out for surrounding regions and plans.
- 2.26 Since the scale of growth planned in the Neighbourhood Plan is in line with that in the emerging Purbeck District Council Local Plan (2018-2034) and growth within the Neighbourhood Plan area was covered by the Local Plan HRA Pre-Submission Draft HRA¹⁰, the Local Plan HRA essentially sets the scope of this Neighbourhood Plan HRA. The only impact pathways discussed in the Local Plan HRA and that could not be screened out (without mitigation) within the HRA of the Local Plan were as follows:
- Disturbance (including urbanisation and recreational pressure);
 - Human induced changes in hydraulic conditions; and,
 - Loss of functionally linked land outside of the European site.

⁹ Waddenzee case (Case C-127/02, [2004] ECR-I 7405)

¹⁰ Hoskin, R. Liley, D. & Panter, C. (2018). Habitats Regulations Assessment of the Pre-submission Publication of the Purbeck Local Plan Review.

3. Pathways of Impact

3.1 The following indirect pathways of impact are considered relevant to the HRA of the Plan:

- Disturbance (including urbanisation and recreational pressure)
- Human induced changes in hydraulic conditions
- Loss of Functionally linked land outside of the European site

Disturbance (including urbanisation and recreational pressure)

3.2 Recreational use of a European site has the potential to:

- Cause disturbance to sensitive species, particularly ground-nesting birds and (where relevant) wintering wildfowl.
- Cause damage through erosion and fragmentation;
- Cause eutrophication as a result of dog fouling; and
- Prevent appropriate management or exacerbate existing management difficulties;
- Additional effects such as high levels of arson, vandalism etc. are related to urban pressures and set out in Dorset Heathlands Planning Framework 2015 - 2020 SPD and Appendix D.

3.3 Different types of European sites are subject to different types of recreational pressures and have different vulnerabilities. Studies across a range of species have shown that the effects from recreation can be complex.

3.4 It should be emphasised that recreational use is not inevitably a problem. Many European sites also contain nature reserves managed for conservation and public appreciation of nature.

3.5 HRAs of Local Plans tend to focus on recreational sources of disturbance as a result of new residents¹¹.

3.6 This section distinguishes between potential impacts on breeding birds (between February and August) and non-breeding birds (between August to May).

Breeding birds (February to August)

3.7 Concern regarding the effects of disturbance on birds stems from the fact that they are expending energy unnecessarily and the time they spend responding to disturbance is time that is not spent feeding (this will apply all year round)¹². Disturbance therefore risks increasing energetic output while reducing energetic input, which can adversely affect the 'condition' and ultimately survival of the birds. In addition, displacement of birds from one feeding site to others can increase the pressure on the resources available within the remaining sites, as they must sustain a greater number of birds¹³. Moreover, the more time a breeding bird spends disturbed from its nest, the more its eggs are likely to cool and the more vulnerable they, or any nestlings, are to predators.

3.8 Research into the effects of urban development on southern lowland heathlands has identified a number of pressures that threaten their habitat condition, arising from a range of factors that have been reviewed by a number of studies. Visitors surveys have revealed how much the open, remote and natural features

¹¹ The RTP1 report 'Planning for an Ageing Population'(2004) which states that 'From being a marginalised group in society, the elderly are now a force to be reckoned with and increasingly seen as a market to be wooed by the leisure and tourist industries. There are more of them and generally they have more time and more money.' It also states that 'Participation in most physical activities shows a significant decline after the age of 50. The exceptions to this are walking, golf, bowls and sailing, where participation rates hold up well into the 70s'.

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

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

of lowland heathland are appreciated by the local population and make them attractive for a range of recreational uses, particularly walking and dog walking although horse riding, cycling, jogging, picnicking and bird watching are also identified as regular activities Clarke et al.,(2006), Liley et al., (2006), Pincombe & Smallbone, (2009a&b).

- 3.9 Studies undertaken across 16 sites in southern England, including the Dorset Heaths, woodlark population density was found to be significantly lower at sites with higher disturbance levels¹⁴. This supported previous findings that density of woodlark territories is significantly reduced on sites with open access compared to those with restricted access¹⁵. This pattern was thought to be due to birds not nesting (but nevertheless still foraging) in the most heavily visited areas. At sites with recreational access, woodlarks were found to be less likely to colonise suitable habitat in areas with greater disturbance; eight disturbance events per hour reduced the probability of colonisation to below 50%. However, the lower woodlark density at more highly disturbed sites resulted in greater breeding success, in terms of more fledged chicks per pair, i.e. high disturbance levels produced a strong density-dependent increase in reproductive output¹⁶. A model has been developed to predict the consequences for the woodlark population of a range of visitor access levels¹⁷. Recreational disturbance is thought to be having a major adverse effect on woodlark populations in Dorset already. Studies undertaken have not considered suitable sites where impacts have already displaced birds. Any further population impact is likely to depend on the spatial distribution of visitors as well as overall numbers. Under current access arrangements, a doubling of visitor numbers is predicted to reduce population size by 15%. If visitor levels doubled and visitors spread equally across sites, a 40% population decline is predicted¹⁸. If disturbance at 16 heathland sites were to be removed, it is predicted that the breeding population of woodlarks would increase by 13–48%¹⁹.

Non-breeding birds (August to July)

- 3.10 The potential for disturbance may be different in winter than in summer, in that there are often a smaller number of recreational users. In addition, the consequences of disturbance at a population level may be reduced because birds are not breeding. However, activity outside of the summer months can still cause important disturbance, especially as birds are particularly vulnerable at this time of year due to food shortages. Disturbance which results in abandonment of suitable feeding areas can have severe consequences for those birds involved and their ability to find alternative feeding areas. Evans & Warrington²⁰ found that on Sundays total water bird numbers (including shoveler and gadwall) were 19% higher on Stocker's Lake LNR in Hertfordshire and attributed this to observed greater recreational activity on surrounding water bodies at weekends relative to week days displacing birds into the LNR. However, in this study, recreational activity was not quantified in detail, nor were individual recreational activities evaluated separately; and

- Tuite et al²¹ used a large (379 site), long-term (10-year) dataset (September – March species counts) to correlate seasonal changes in wildfowl abundance with the presence of various recreational activities. They found that shoveler was one of the most sensitive species to disturbance. The

¹⁴ Mallord, J.W., Dolman, P., Brown, A. & Sutherland, W.J. (2007) Quantifying Density Dependence in a Bird Population Using Human Disturbance. *Oecologia*, 153, 49- 56.

Mallord, J.W., Dolman, P.M., Brown, A.F. & Sutherland, W.J. (2006) Linking Recreational Disturbance to Population Size in a Ground-nesting Passerine. *Journal of Applied Ecology*, 44, 185-195

¹⁵ Liley, D. & Clarke, R.T. (2002) Urban Development Adjacent to Heathland Sites in Dorset: The Effect on the Density and Settlement Patterns of Annex 1 Bird Species. *English Nature*, Peterborough.

¹⁶ Mallord, J.W., Dolman, P., Brown, A. & Sutherland, W.J. (2007) Quantifying Density Dependence in a Bird Population Using Human Disturbance. *Oecologia*, 153, 49- 56.

Mallord, J.W., Dolman, P.M., Brown, A.F. & Sutherland, W.J. (2006) Linking Recreational Disturbance to Population Size in a Ground-nesting Passerine. *Journal of Applied Ecology*, 44, 185-195

¹⁷ Mallord, J.W., Dolman, P.M., Brown, A.F. & Sutherland, W.J. (2006) Linking Recreational Disturbance to Population Size in a Ground-nesting Passerine. *Journal of Applied Ecology*, 44, 185-195

¹⁸ Mallord, J.W., Dolman, P., Brown, A. & Sutherland, W.J. (2007) Quantifying Density Dependence in a Bird Population Using Human Disturbance. *Oecologia*, 153, 49- 56.

Mallord, J.W., Dolman, P.M., Brown, A.F. & Sutherland, W.J. (2006) Linking Recreational Disturbance to Population Size in a Ground-nesting Passerine. *Journal of Applied Ecology*, 44, 185-195

¹⁹ Mallord, J.W. (2005) Predicting the Consequences of Human Disturbance, Urbanisation and Fragmentation for a Woodlark *Lullula Arborea* Population. UEA, School of Biological Sciences, Norwich.

²⁰ Evans, D.M. & Warrington, S. 1997. The effects of recreational disturbance on wintering water birds on a mature gravel pitlake near London. *International Journal of Environmental Studies* 53: 167-182

²¹ Tuite, C.H., Hanson, P.R. & Owen, M. 1984. Some ecological factors affecting winter wildfowl distribution on inland waters in England and Wales and the influence of water-based recreation. *Journal of Applied Ecology* 21: 41-62

greatest impact on wildfowl numbers during these months was associated with sailing/windsurfing and rowing.

- 3.11 More recent research has established that human activity including recreational activity can be linked to disturbance of wintering waterfowl populations^{22 23}.
- 3.12 Human activity can affect birds either directly (e.g. through causing them to flee) or indirectly (e.g. through damaging their habitat or reducing their fitness in less obvious ways e.g. stress). The most obvious direct effect is that of immediate mortality such as death by shooting, but human activity can also lead to behavioural changes (e.g. alterations in feeding behaviour, avoidance of certain areas and use of sub optimal areas etc.) and physiological changes (e.g. an increase in heart rate) that, although less noticeable, may ultimately result in major population-level effects by altering the balance between immigration/birth and emigration/death²⁴.
- 3.13 The degree of impact that varying levels of noise will have on different species of bird is poorly understood except that a number of studies have found that an increase in traffic levels on roads does lead to a reduction in the bird abundance within adjacent hedgerows - Reijnen et al (1995) examined the distribution of 43 passerine species (i.e. 'songbirds'), of which 60% had a lower density closer to the roadside than further away. By controlling vehicle usage, they also found that the density generally was lower along busier roads than quieter roads²⁵. A study on Holt Heath noted reduced levels of fitness due to occupation of sub optimal habitats alongside roads amongst heathland species.
- 3.14 A recent study on recreational disturbance on the Humber²⁶ assesses different types of noise disturbance on waterfowl referring to studies relating to aircraft (see Drewitt 1999²⁷), traffic (Reijnen, Foppen, & Veenbaas 1997)²⁸, dogs (Lord, Waas, & Innes 1997²⁹; Banks & Bryant 2007³⁰) and machinery (Delaney et al. 1999; Tempel & Gutierrez 2003). These studies identified that there is still relatively little work on the effects of different types of water-based craft and the impacts from jet skis, kite surfers, windsurfers etc. (see Kirby et al. 2004³¹ for a review). Some types of disturbance are clearly likely to invoke different responses. In very general terms, both distance from the source of disturbance and the scale of the disturbance (noise level, group size) will both influence the response (Delaney et al. 1999³²; Beale & Monaghan 2005³³). On UK estuaries and coastal sites, a review of WeBS data showed that, among the volunteer WeBS surveyors, driving of motor vehicles and shooting were the two activities most perceived to cause disturbance (Robinson & Pollitt 2002)³⁴.

Other activities causing disturbance

- 3.15 Activities other than recreation may also lead to disturbance of wildlife. Of relevance to the Wareham Neighbourhood Plan for example would be noise, vibration and visual disturbance from development in close proximity to European sites. Related activities such as bait digging/dragging and shellfish harvesting have similar disturbance effects. Light pollution can also be an issue.

²² Footprint Ecology. 2010. Recreational Disturbance to Birds on the Humber Estuary

²³ Footprint Ecology, Jonathan Cox Associates & Bournemouth University. 2010. Solent disturbance and mitigation project – various reports.

²⁴ Riley, J. 2003. Review of Recreational Disturbance Research on Selected Wildlife in Scotland. Scottish Natural Heritage.

²⁵ Reijnen, R. et al. 1995. The effects of car traffic on breeding bird populations in woodland. III. Reduction of density in relation to the proximity of main roads. *Journal of Applied Ecology* 32: 187-202

²⁶ Helen Fearnley Durwyn Liley and Katie Cruickshanks (2012) Results of Recreational Visitor Survey across the Humber Estuary produced by Footprint Ecology

²⁷ Drewitt, A. (1999) Disturbance effects of aircraft on birds. English Nature, Peterborough.

²⁸ Reijnen, R., Foppen, R. & Veenbaas, G. (1997) Disturbance by traffic of breeding birds: evaluation of the effect and considerations in planning and managing road corridors. *Biodiversity and Conservation*, 6, 567-581.

²⁹ Lord, A., Waas, J.R. & Innes, J. (1997) Effects of human activity on the behaviour of northern New Zealand dotterel *Charadrius obscurus aequilonius* chicks. *Biological Conservation*, 82,15-20.

³⁰ Banks, P.B. & Bryant, J.V. (2007) Four-legged friend of foe? Dog-walking displaces native birds from natural areas. *Biology Letters*, 3, 611-613.

³¹ Kirby, J.S., Clee, C. & Seager, V. (1993) Impact and extent of recreational disturbance to wader roosts on the Dee estuary: some preliminary results. *Wader Study Group Bulletin*, 68, 53-58.

³² Delaney, D.K., Grubb, T.G., Beier, P., Pater, L.L.M. & Reiser, H. (1999) Effects of Helicopter Noise on Mexican Spotted Owls. *The Journal of Wildlife Management*, 63, 60-76.

³³ Beale, C.M. & Monaghan, P. (2005) Modeling the Effects of Limiting the Number of Visitors on Failure Rates of Seabird Nests. *Conservation Biology*, 19, 2015-2019.

³⁴ Robinson, J.A. & Pollitt, M.S. (2002) Sources and extent of human disturbance to waterbirds in the UK: an analysis of Wetland Bird Survey data, 1995/96 to 1998/99: Less than 32% of counters record disturbance at their site, with differences in causes between coastal and inland sites. *Bird Study*, 49, 205.

- 3.16 Disturbing activities are on a continuum. The most disturbing activities are likely to be those that involve irregular, infrequent, unpredictable loud noise events, movement or vibration of long duration. The presence of people and dogs in and around the harbour and heaths generate a substantial disturbance effects because of the areas accessed and the impact of a potential predator on bird behaviour. Birds are least likely to be disturbed by activities that involve regular, frequent, predictable, quiet patterns of sound or movement or minimal vibration. The further any activity is from the birds, the less likely it is to result in disturbance.
- 3.17 The factors that influence a species response to a disturbance are numerous, but the three key factors are species sensitivity, proximity of disturbance sources and timing/duration of the potentially disturbing activity.
- 3.18 The distance at which a species takes flight when approached by a disturbing stimulus is known as the 'tolerance distance' (also called the 'escape flight distance') and differs between species to the same stimulus and within a species to different stimuli. These are given in Table 2, which compiles 'tolerance distances' from across the literature. It is reasonable to assume from this that disturbance is unlikely to be experienced more than a few hundred metres from the birds in question. Tolerance distances are unknown for many birds and simple extrapolation to other species is not advised.

Table 2: Tolerance distances of 21 water bird species to various forms of recreational disturbance, as described in the literature. All distances are in metres. Single figures are mean distances; when means are not published, ranges are given.³⁵

Species	Type of disturbance. ¹ Tydeman (1978), ² Keller (1989), ³ Van der Meer (1985), ⁴ Wolff et al (1982), ⁵ Blankestijn et al (1986)		
	Rowing boats/kayak	Sailing boats	Walking
Little grebe		60 – 100 ¹	
Great crested grebe	50 – 100 ²	20 – 400 ¹	
Mute swan		3 – 30 ¹	
Teal		0 – 400 ¹	
Mallard		10 – 100 ¹	
Shoveler		200 – 400 ¹	
Pochard		60 – 400 ¹	
Tufted duck		60 – 400 ¹	
Goldeneye		100 – 400 ¹	
Smew		0 – 400 ¹	
Moorhen		100 – 400 ¹	
Coot		5 – 50 ¹	
Curlew			211 ³ ; 339 ⁴ ; 213 ⁵
Shelduck			148 ³ ; 250 ⁴
Grey plover			124 ³
Ringed plover			121 ³
Bar-tailed godwit			107 ³ ; 219 ⁴
Brent goose			105 ³
Oystercatcher			85 ³ ; 136 ⁴ ; 82 ⁵

³⁵ Tydeman, C.F. 1978. Gravel Pits as conservation areas for breeding bird communities. PhD thesis. Bedford College
Keller, V. 1989. Variations in the response of Great Crested Grebes *Podiceps cristatus* to human disturbance - a sign of adaptation? *Biological Conservation* 49:31-45
Van der Meer, J. 1985. *De verstoring van vogels op de slikken van de Oosterschelde*. Report 85.09 Deltadienst Milieu en Inrichting, Middelburg. 37 pp.
Wolf, W.J., Reijnders, P.J.H. & Smit, C.J. 1982. The effects of recreation on the Wadden Sea ecosystem: many questions but few answers. In: G. Luck & H. Michaelis (Eds.), *Schriftenreihe M.E.L.F., Reihe A: Agnew. Wissensch* 275: 85-107
Blankestijn, S. et al. 1986. Seizoensverbreding in de recreatie en verstoring van Wulp en Scholkester op hoogwatervluchplaatsen op Terschelling. Report Projectgroep Wadden, L.H. Wageningen. 261pp.

Dunlin

71³; 163²

- 3.19 Research into the effects of urban development on southern lowland heathlands has identified a number of pressures that threaten their habitat condition, arising from a range of factors that have been reviewed by a number of studies. Visitors surveys have revealed how much the open, remote and natural features of lowland heathland are appreciated by the local population and make them attractive for a range of recreational uses, particularly walking and dog walking although horse riding, cycling, jogging, picnicking and bird watching are also identified as regular activities³⁶. In Dorset a long-term issue is arson on the heaths which is now much reduced from historic levels pre site designations but which remains at significant levels and with consequent risks.
- 3.20 The potential for apparent disturbance may be less in winter than in summer, in that there are often a smaller number of recreational users. In addition, the consequences of disturbance at a population level may be reduced because birds are not breeding. However, activity outside of the summer months can still cause important disturbance, especially as birds are particularly vulnerable at this time of year due to food shortages. Disturbance which results in abandonment of suitable feeding areas can have severe consequences for those birds involved and their ability to find alternative feeding areas. Several empirical studies have, through correlative analysis, demonstrated that out-of-season (October-March) recreational activity can result in quantifiable disturbance:
- Tuite et al³⁷ found that during periods of high recreational activity, bird numbers at Llangorse Lake decreased by 30% as the morning progressed, matching the increase in recreational activity towards midday. During periods of low recreational activity, however, no change in numbers was observed as the morning progressed. In addition, all species were found to spend less time in their 'preferred zones' (the areas of the lake used most in the absence of recreational activity) as recreational intensity increased;
 - Underhill et al³⁸ counted waterfowl and all disturbance events on 54 water bodies within the South West London Water Bodies Special Protection Area and clearly correlated disturbance with a decrease in bird numbers at weekends in smaller sites and with the movement of birds within larger sites from disturbed to less disturbed areas.
- 3.21 Human activity can affect birds either directly (e.g. through causing them to flee) or indirectly (e.g. through damaging their habitat). The most obvious direct effect is that of immediate mortality such as death by shooting, but human activity can also lead to behavioural changes (e.g. alterations in feeding behaviour, avoidance of certain areas etc.) and physiological changes (e.g. an increase in heart rate) that, although less noticeable, may ultimately result in major population-level effects by altering the balance between immigration/birth and emigration/death³⁹. The impact of disturbance on birds changes during the seasons in relation to a number of very specific factors, for example the winter below freezing temperature, the birds fat resource levels and the need to remain watchful for predators rather than feeding. These considerations lead to birds apparently showing different behavioural responses at different times of the year.
- 3.22 The degree of impact that varying levels of noise will have on different species of bird is poorly understood except that a number of studies have found that an increase in traffic levels on roads does lead to a reduction in the bird abundance within adjacent hedgerows - Reijnen et al (1995) examined the distribution of 43 passerine species (i.e. 'songbirds'), of which 60% had a lower density closer to the

³⁶ Clarke R, Liley D, Underhill-Day J & Rose R (2006): Visitor Access Patterns on the Dorset Heathlands. English Nature Research Reports No. 683

Liley D, Clarke RT, Mallord JW, & Bullock JM (2006): The effect of urban development and human disturbance on the distribution and abundance of nightjars on the Thames Basin and Dorset Heaths. Unpublished report, Footprint Ecology / Natural England. © Natural England / Footprint Ecology Ltd.

Pincombe NEJ and Smallbone K (2009a): Visitor Access Patterns on Ashdown Forest. UE Associates Ltd and University of Brighton Report for Mid Sussex and Wealden District Councils.

Pincombe NEJ and Smallbone K (2009b): Visitor Access Patterns on European Sites surrounding Whitehill and Bordon, East Hampshire. UE Associates Ltd and University of Brighton Report for the Whitehill Bordon Eco-town and East Hampshire District Council.

³⁷ Tuite, C. H., Owen, M. & Paynter, D. 1983. Interaction between wildfowl and recreation at Llangorse Lake and Talybont Reservoir, South Wales. *Wildfowl* 34: 48-63

³⁸ Underhill, M.C. et al. 1993. Use of Waterbodies in South West London by Waterfowl. An Investigation of the Factors Affecting Distribution, Abundance and Community Structure. Report to Thames Water Utilities Ltd. and English Nature. Wetlands Advisory Service, Slimbridge

³⁹ Riley, J. 2003. Review of Recreational Disturbance Research on Selected Wildlife in Scotland. Scottish Natural Heritage.

roadside than further away. By controlling vehicle usage, they also found that the density generally was lower along busier roads than quieter roads⁴⁰.

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

Mechanical/abrasive damage and nutrient enrichment

- 3.24 Most types of aquatic or terrestrial European site can be affected by trampling, which in turn causes soil compaction and erosion:

- Wilson & Seney (1994)⁴¹ examined the degree of track erosion caused by hikers, motorcycles, horses and cyclists from 108 plots along tracks in the Gallatin National Forest, Montana. Although the results proved difficult to interpret, it was concluded that horses and hikers disturbed more sediment on wet tracks, and therefore caused more erosion, than motorcycles and bicycles.
- Cole et al (1995a, b)⁴² conducted experimental off-track trampling in 18 closed forest, dwarf scrub and meadow & grassland communities (each tramped between 0 – 500 times) over five mountain regions in the US. Vegetation cover was assessed two weeks and one year after trampling, and an inverse relationship with trampling intensity was discovered, although this relationship was weaker after one year than two weeks indicating some recovery of the vegetation. Differences in plant morphological characteristics were found to explain more variation in response between different vegetation types than soil and topographic factors. Low-growing, mat-forming grasses regained their cover best after two weeks and were considered most resistant to trampling, while tall forbs (non-woody vascular plants other than grasses, sedges, rushes and ferns) were considered least resistant. Cover of hemicryptophytes and geophytes (plants with buds below the soil surface) was heavily reduced after two weeks but had recovered well after one year and as such these were considered most resilient to trampling. Chamaephytes (plants with buds above the soil surface) were least resilient to trampling. It was concluded that these would be the least tolerant of a regular cycle of disturbance.
- Cole (1995c)⁴³ conducted a follow-up study (in 4 vegetation types) in which shoe type (trainers or walking boots) and trampler weight were varied. Although immediate damage was greater with walking boots, there was no significant difference after one year. Heavier trampers caused a greater reduction in vegetation height than lighter trampers, but there was no difference in effect on cover.
- Cole & Spildie (1998)⁴⁴ experimentally compared the effects of off-track trampling by hiker and horse (at two intensities – 25 and 150 passes) in two woodland vegetation types (one with an erect forb understorey and one with a low shrub understorey). Horse traffic was found to cause the largest reduction in vegetation cover. The forb-dominated vegetation suffered greatest disturbance but recovered rapidly. Higher trampling intensities caused more disturbance.

- 3.25 Walkers with dogs contribute to pressure on sites through nutrient enrichment via dog fouling and also cause greater disturbance to fauna as dogs are less likely to keep to marked footpaths and also tend to move in a more erratic manner. Sites being managed by nature conservation bodies and local authorities frequently resort to hardening eroded paths to restrict erosion but at the same time they are losing the habitats formerly used by sand lizards and burrowing invertebrates. Motorcycle scrambling and off-road vehicle use can cause more serious erosion, as well as disturbance to sensitive species. Boats can also

⁴⁰ Reijnen, R. et al. 1995. The effects of car traffic on breeding bird populations in woodland. III. Reduction of density in relation to the proximity of main roads. *Journal of Applied Ecology* 32: 187-202

⁴¹ Wilson, J.P. & J.P. Seney. 1994. Erosional impact of hikers, horses, motorcycles and off road bicycles on mountain trails in Montana. *Mountain Research and Development* 14:77-88

⁴² Cole, D.N. 1995a. Experimental trampling of vegetation. I. Relationship between trampling intensity and vegetation response. *Journal of Applied Ecology* 32: 203-214

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

⁴³ Cole, D.N. 1995c. Recreational trampling experiments: effects of trampler weight and shoe type. Research Note INT-RN-425. U.S. Forest Service, Intermountain Research Station, Utah.

⁴⁴ Cole, D.N., Spildie, D.R. 1998. Hiker, horse and llama trampling effects on native vegetation in Montana, USA. *Journal of Environmental Management* 53: 61-71

cause some mechanical damage to intertidal habitats through grounding as well as anchor and anchor line damage.

Urbanisation

- 3.26 This impact is closely related to recreational pressure, in that they both result from increased populations within close proximity to sensitive sites. The list of urbanisation impacts can be extensive, but core impacts can be singled out:
- *Increased fly-tipping* - Rubbish tipping is unsightly, but the principle adverse ecological effect of tipping is the introduction of invasive alien species with garden waste. Garden waste results in the introduction of invasive aliens precisely because it is the 'troublesome and over-exuberant' garden plants that are typically thrown out. Alien species may also be introduced deliberately or may be bird-sown from local gardens.
 - *Cat predation* - A survey performed in 1997 indicated that nine million British cats brought home 92 million prey items over a five-month period. A large proportion of domestic cats are found in urban situations, and increasing urbanisation is likely to lead to increased cat predation.
- 3.27 The most detailed consideration of the link between relative proximity of development to European sites and damage to interest features has been carried out with regard to the Thames Basin Heaths SPA and the Dorset Heathlands SPA, SAC and Ramsar.
- 3.28 With regards to the Dorset Heathland sites Natural England and its partners produced a 'Supplementary Planning Document' (SPD)⁴⁵ which identifies a framework for accommodating development while also protecting the interest features of the European sites. This included the recommendation of implementing a series of zones within which varying constraints would be placed upon development. While the zones relating to recreational pressure expanded to 5km (as this was determined from visitor surveys to be the principal recreational catchment for this European site), that concerning other aspects of urbanisation (predation of the chicks of ground-nesting birds by domestic cats, recreational pressure that cannot be readily diverted, fly tipping, increased incidence of fires and general urbanisation) was determined at 400m from the SPA boundary; refer to Appendix D for the list of these pathways taken from the SPD. The SPD concluded that the adverse effects of residential development located within 400m of the SPA boundary could not be mitigated, in part because this was the range within cats could be expected to roam as a matter of routine and there was no realistic way of restricting their movements, and as such, no new housing should be located within this zone.

Loss of Functionally Linked Land Outside of the European Site Boundary

- 3.29 While most European sites have been geographically defined in order to encompass the key features that are necessary for coherence of their structure and function, this is not the case for all such sites. Due to the highly mobile nature of both wildfowl and waterfowl birds and heathland birds, it is inevitable that areas of habitat of crucial importance to the maintenance of their populations are outside the physical limits of the European site for which they are an interest feature. However, this area will still be essential for maintenance of the structure and function of the interest feature for which the site was designated and land use plans that may affect this land should still therefore be subject to further assessment. In particular recent studies are raising serious considerations about nightjar foraging requirements as well as woodlark wintering grounds. It is also known that greater Horseshoe bats utilise areas between the coast and inland breeding sites and access the neighbourhood plan area as part of their functionally linked supporting habitats, although this is not an HRA issue.

Dorset Heathlands SPA/Ramsar

- 3.30 Dorset Heathlands SPA/Ramsar qualifying features include breeding nightjar, woodlark and Dartford warbler and wintering merlin and hen harrier. Information relating to their habitat requirements is provided below:

⁴⁵ <https://www.dorsetforyou.gov.uk/planning-buildings-land/planning-policy/joint-planning-policy-work/pdfs/heathlands/dorset-heathlands-planning-framework-supplementary-planning-document-2015-2020.pdf> [accessed 20/11/2018]

- Nightjar show a preference for bare patches or areas of very short or sparse vegetation with widely scattered trees where they are able to see predators approaching. These patches may be on open heath, in patchy scrub and in the interface between heath and woodland, as well as in clearings in woodland or plantations. Nightjars are known to forage up to 6 kilometres away from their nesting territory.
 - Bare ground is particularly important to Woodlark, especially where adjacent to structurally diverse vegetation and short heather. They may utilise scattered trees or large bushes to act as song-posts. Woodlark will often utilise areas adjacent to heathland for feeding, including areas of short grassland, stubble fields or weedy margins of arable fields, golf courses and bare areas in quarry sites.
 - Dartford warbler favour large areas of open terrain, largely free of obstructions, in and around nesting, roosting and feeding areas in lowland heathland with gorse and heather. They benefit from availability of an unobstructed line of sight within nesting, feeding or roosting to enable birds to detect approaching predators, or to ensure visibility of displaying behaviour. However, they will utilise enclosed features such as clearings in conifer plantations.⁴⁶
 - Merlin *Falco columbarius* forage/feed in moorland/heathland habitat.
 - Hen harrier *Circus cyaneus* winters in the lowlands, particularly around the coast, on heathland and on farmland. It is one of the most endangered breeding birds of prey in the country; at its wintering grounds it feeds on small scrub and open habitat birds found on the heaths and surrounding countryside. As a bird which roosts on the ground it is particularly vulnerable to disturbance.
- 3.31 The long-term substantial loss, degradation and fragmentation of lowland heathland habitats has been the major factor associated with the decline of nightjar and woodlark⁴⁷. Whilst a portion of Wareham Forest is located within the European sites, there are also additional portions of woodland associated with Wareham Forest that provide woodland and heathland habitats that could support avian features associated with the European sites, of note are woodlark and nightjar.
- 3.32 The most suitable habitats for nesting nightjar and woodlark are heathland, acid grassland and plantation woodland (meaning any woodland that is cropped and replanted on a regular cycle, creating clearings in which the birds can nest). Woodland that is maintained as continuous-cover forestry is generally unsuitable for nesting nightjar and woodlark, unless they incorporate adequate clearings. Development that would affect areas of plantation woodland, heathland or acid grassland (irrespective of whether they are part of the European sites) could potentially affect nightjar and woodlark.
- 3.33 Research undertaken in the Breckland Forest area⁴⁸ has identified that nightjar are most likely to use conventionally managed plantation during the first c. 20 years of the c. 60-year forestry cycle, including the initial 2 year 'felled unplanted' period. Population densities are highest during the restock phase (plantation age of 0-5 years), although significant densities can also be supported during the pre-thicket (6-10 years) and thicket (11 – 20 years) stages. The same research identifies that woodlark are most likely to use conventionally managed plantation during its first seven years (including the initial 2 year felled unplanted period), particularly the restock phase (plantation age of 0-5 years). They *may* also be found during the pre-thicket (6-10 years) stage but the density of woodlark in pre-thicket plantation is very low. They are essentially absent from thicket (11-20 years) and mature plantation.
- 3.34 Since nightjar and woodlark only use certain parts of the forestry cycle their absence from a given parcel of plantation, or the fact that the plantation is not in a suitable phase for colonisation, at a given point in time cannot be used as a basis to conclude nightjar and woodlark will not use the land. If the birds are known to be present in the broad area (as they are here) than any conventionally managed plantation could support them. Therefore, this assessment treats the entirety of Wareham Forest as functionally-linked land for birds of the Dorset Heathlands SPA.

⁴⁷ Research examples that support/explore this include: Rose, et al. 2000. Changes in heathland in Dorset, England between 1987 and 1996. Biological Conservation. 121: 93-105. & Langston et al. 2007. Nightjar *Caprimulgus europaeus* and Woodlark *Lullula arborea* – recovering species in Britain? Ibis. 149: 250-260.

⁴⁷ Research examples that support/explore this include: Rose, et al. 2000. Changes in heathland in Dorset, England between 1987 and 1996. Biological Conservation. 121: 93-105. & Langston et al. 2007. Nightjar *Caprimulgus europaeus* and Woodlark *Lullula arborea* – recovering species in Britain? Ibis. 149: 250-260.

⁴⁸ Dolman PM & Morrison C, 2012. Temporal change in territory density and habitat quality for Breckland Forest SSSI woodlark and nightjar populations, Unpublished report for Forestry Commission and Natural England.

Poole Harbour SPA/Ramsar

3.35 Poole Harbour SPA/Ramsar qualifying features include: breeding common tern *Sterna hirundo*, sandwich tern *Sterna sandvicensis*, and Mediterranean gull *Larus melanocephalus*; passage aquatic warbler *Acrocephalus paludicola* and little egret *Egretta garzetta*; and wintering avocet *Recurvirostra avocetta*, and little egret. Also Poole Harbour SPA qualifying features include internationally important wintering populations of: Icelandic population of black-tailed godwit *Limosa limosa*; and the North-western European population of wintering Shelduck *Tadorna tadorna*. Information relating to their habitat requirements is provided below:

- Common tern breed on shingle beaches, rocky islands and inland on the gravelly shores of lakes and rivers. They are noisy in their colonies and, like most terns, will attack intruders threatening their nests. They hover over the water before plunge-diving to catch their fish prey.
- Sandwich tern breeds in colonies on sand and shingle beaches, islands and spits. Sandwich Terns feed on fish, such as sandeels, sprats and whiting, which they catch by diving into the water.
- Mediterranean gull breeds in colonies in large reed beds or marshes, or on islands in lakes; where its population is small, it nests in black-headed gull colonies. It is not a pelagic species and is rarely seen at sea far from coasts. The Mediterranean gull's feeding habits are much an opportunistic omnivore, eating fish, worms, scraps, insects, offal and carrion.
- Aquatic warbler *Acrocephalus paludicola* are found in coastal reedbeds along the south coast, often feeding near the reedbed in low vegetation.
- Little egret is most common along the south and east coasts of England and in Wales. It is found in the estuaries of Poole Harbour
- Black-tailed godwit is present in estuaries and coastal lagoons most of the year, though they also visit wetland sites inland.
- Shelduck it is mainly coastal, feeding on small invertebrates that it finds in the mud of estuaries and sandy beaches. It has spread inland, however, as flooded gravel pits with sandy shores and gravel banks provide a perfect feeding ground.

Human Induced Changes in Hydrological Conditions

Heathland European Sites

- 3.36 Mires and Bogs are sensitive to changes in hydrology and maintenance of natural regimes, water quality, and avoidance of water table lowering are important factors. Areas that have suffered previous damaging activities require enhancement/restoration including ditch blocking, re-vegetation of bare peat, increased vegetation diversity in response to the discontinuation of grazing and a reduction of erosion through gully⁴⁹.
- 3.37 Changes in hydrological conditions that could affect the SACs habitats brought about by additional housing requirements would be through increased water demand and its potential abstraction from reservoirs that are functionally linked to European sites. Reduction in water levels/ changes in the water table could affect the following habitats within the SAC: Northern Atlantic wet heaths with *Erica tetralix*; Temperate Atlantic wet heaths with *Erica ciliaris* and *Erica tetralix* and bog woodland.

Coastal European Sites

- 3.38 Increased amounts of housing or business development can lead to reduced water quality of rivers and estuarine environments. Sewage and industrial effluent discharges can contribute to increased nutrients on European sites leading to unfavourable conditions. In addition, diffuse pollution, partly from urban run-off has been identified during an Environment Agency Review of Consents process and a joint Environment Agency and Natural England evidence review, as being a major factor in causing unfavourable condition of European sites.

⁴⁹ https://www.highpeak.gov.uk/media/960/Habitats-regulation-screening-assessment-March-2010/pdf/Habitats_Regulation_Assessment_March_2014.pdf

3.39 The quality of the water that feeds European sites is an important determinant of the nature of their habitats and the species they support. Poor water quality can have a range of environmental impacts:

- At high levels, toxic chemicals and metals can result in immediate death of aquatic life, and can have detrimental effects even at lower levels, including increased vulnerability to disease and changes in wildlife behaviour. Eutrophication, the enrichment of plant nutrients in water, increases plant growth and consequently results in oxygen depletion. Algal blooms, which commonly result from eutrophication, increase turbidity and decrease light penetration. The decomposition of organic wastes that often accompanies eutrophication deoxygenates water further, augmenting the oxygen depleting effects of eutrophication. In the marine environment, nitrogen is the limiting plant nutrient and so eutrophication is associated with discharges containing available nitrogen;
- Some pesticides, industrial chemicals, and components of sewage effluent are suspected to interfere with the functioning of the endocrine system, possibly having negative effects on the reproduction and development of aquatic life; and
- Increased discharge of treated sewage effluent can result both in high levels of macroalgal growth, which can smother the mudflats of value to SPA birds and in greater scour (as a result of greater flow volumes).

3.40 At sewage treatment works, additional residential development increases the risk of effluent escape into aquatic environments in addition to consented discharges to the catchment. In many urban areas, sewage treatment and surface water drainage systems are combined, and therefore a predicted increase in flood and storm events could increase pollution risk.

3.41 As the quantum of development to be provided by the Wareham Neighbourhood Plan is in conformity with the overarching Purbeck Local Plan (2018-2034) (which has been subject to HRA that concluded no adverse effects on integrity), impact pathways relating to increased water demand provided by the additional housing provision, that could result in increased in an increase in water abstraction have already been addressed at the higher tier level within the Purbeck Local Plan, however impacts from individual site allocations will be investigated further within this report.

4. Test of Likely Significance

Introduction

- 4.1 The initial scoping of European designated sites illustrated in **Table 1** identifies that some of the sites are potentially vulnerable to:
- Disturbance (including urbanisation and recreational pressure)
 - Water pollution
 - Increased water abstraction
 - Loss of functionally linked habitat
- 4.2 The full test of Likely Significant Effects for the Wareham Neighbourhood Plan policies is presented both alone and in-combination in **Appendix C**. The assessment took into consideration the above potential vulnerabilities of the European sites included in Table 1. Where sites are allocated, the locations of these are illustrated in **Appendix A, Figure A2**.

Summary of Test of Likely Significance ‘Alone’

- 4.3 Of the 30 Neighbourhood Plan policies, only three were considered to have the potential to result in a likely significant effect alone:
- Policy H7 - Wareham Town Northern Gateway (Gasworks and Autopoint sites). The site is located immediately adjacent to Poole Harbour Ramsar site, immediately adjacent to the River Piddle (which drains into the Poole Harbour European sites), and the River Piddle flows into Poole Harbour SPA 880m from the site allocation. Impact pathways that will be investigated (and subject to Appropriate Assessment alone) include:
 - Disturbance (including urbanisation) to Ramsar features from construction and operational activities and urbanisation
 - Water pollution (from direct site runoff)
- 4.4 Loss of functionally linked land was not considered to be a likely significant effect; from review of freely available online imagery and mapping, the site appears to be existing employment space and hardstanding, screening the European site from the allocation by tall trees.
- Policy H11 – Sandford Lane Employment Estate Safeguarding. This site was safeguarded for employment within the Adopted Local Plan (2012) and is therefore carried forward within the Neighbourhood Plan. The Neighbourhood Plan policy is essentially a development management policy of the safeguarded site; however; the policy does allude to potential for new development at the site for employment uses. As the site is located immediately adjacent to Poole Harbour Ramsar site and Dorset Heaths SAC and within 130m of Poole Harbour SPA (including marine component) impacts relating to close proximity to these European sites require consideration in line with precautionary principals, should development be brought forward at this site in the future. Impact pathways that will be investigated (and subject to Appropriate Assessment alone) include:
 - Disturbance (including urbanisation) to SPA features from construction and operational activities and urbanisation
 - Water pollution (from direct site runoff)
- 4.5 Loss of functionally linked land was not considered to be a likely significant effect. The boundary of this employment allocation is entirely located within the existing employment estate that (from review of freely available online mapping and imagery) consists of existing employment space and hardstanding that will be subject to existing levels of both noise and visual disturbances.
- Policy GS3 – Proposed Affordable Housing and Extra Care Housing Bonnets Lane Site. This allocation is located approximately 190 m south of Poole Harbour Ramsar site. Impact relating to

close proximity to this European site requires consideration. Impact pathways that will be investigated (and subject to Appropriate Assessment alone) include:

- Urbanisation effects on Ramsar site features.
- 4.6 Loss of functionally linked land was not considered to be a likely significant effect. The boundary of this residential allocation is entirely located within the existing development boundaries that (from review of freely available online mapping and imagery) that will be subject to existing levels of both noise and visual disturbances.
- 4.7 With the exception of the three Policies mentioned above (H7, H11 and GS3), whilst the overall quantum of development in the Neighbourhood Plan could result in likely significant effects, due to the relatively small quantum of housing to be delivered during the plan period (approximately 300 net new dwellings), it is considered unlikely that these would affect a European site alone but only 'in combination' with other plans and projects. These impacts are discussed below.

Summary of Test of Likely Significance 'In combination'

- 4.8 Of the 30 Neighbourhood Plan policies, eight would result in a likely significant effect in combination:
- H1 - Overall Housing Requirement. Provides for the overall quantum of housing to be provided within the Neighbourhood Plan area during the Plan's lifetime. It provides for approximately 300 net new dwellings (with 100 being from windfall development).
 - H5 – Westminster Road. Supports new dwellings and employment space during the Plan period (30 dwellings).
 - H6 – Johns Road. Supports new dwellings during the Plan period (15 dwellings).
 - H7 – Wareham Town Northern Gateway (Gasworks and Autopoint sites). Supports new dwellings (20 dwellings).
 - H8 – Hospital and Health Centre site. Supports new dwellings (40 dwellings) and community facilities during the Plan period.
 - GS2 – Proposed Healthcare and Housing Hub (former Middle School Site) - Supports extra care housing, key worker housing, a care home and affordable housing on the site of the former Middle School (100 dwellings between GS2 and GS3).
 - GS3 – Proposed Affordable Housing and Extra Care Housing Bonnets Lane Site – Supports residential development and the development of extra care housing at this location (100 dwellings between GS2 and GS3).
- 4.9 All remaining policies are development management policies that do not provide impact pathways that could potentially link to European sites.
- 4.10 The above policies provide for the following realistic potential linking impact pathways that could result in likely significant effects on European sites in combination:
- Recreational Pressure: as a result of net new residential development.
 - Hydrological Changes: as a result of increased sewage outputs from net new residential development.
- 4.11 Loss of functionally linked land is not considered to be a likely significant effect. All site allocations are located within land that is located within an existing developed setting (and thus subject to existing noise and visual disturbances) and are existing developed land and are not considered to be located within or in close proximity to habitats that are suitable to support bird species for which the European sites are designated. As such these site allocations are not considered to be located on land that could act as functionally linked land associated with wetland or heathland bird species of the Dorset or Poole Harbour European sites. Having discussed each policy, the impacts are related to the European sites below.

Dorset Heaths SAC and Dorset Heathlands SPA/ Ramsar site

- 4.12 Dorset Heaths SAC and Dorset Heathlands SPA/ Ramsar site are all located within the Wareham Neighbourhood Plan area. They have been identified to be vulnerable to both increased **disturbance (including urbanisation and recreational pressure)** and human induced **changes in hydraulic conditions**.

Disturbance (Including Urbanisation and Recreational Pressure)

- 4.13 The Dorset Heathlands SPA and Dorset Heaths SAC are known to be vulnerable to increased recreational pressures. With regard to the SPA this includes areas of functionally-linked land outside the SPA boundary but in which nightjar and woodlark may nest during appropriate periods of the forestry cycle, notably Wareham Forest. As such a strategic avoidance and mitigation strategy has been devised in consultation with Natural England.
- 4.14 As Wareham Neighbourhood Plan area includes portions of these European sites and Wareham Forest, allocations have the potential to have a significant effect on the European sites in combination. Alone the small increase in residential development to be provided by the Neighbourhood Plan (approximately 300 net new dwellings) would be unlikely to result in a likely significant effect; however, when considered in combination with the quantum of development to be provided by neighbouring authorities, potential for adverse effects on integrity exists. As such **Appropriate Assessment in combination is undertaken in Chapter 5**.

Hydrological Changes

- 4.15 Discussions within the HRA of Purbeck's adopted Local Plan⁵⁰ identified that there was potential for development in Purbeck to potentially impact on this European site both alone and in combination. **As such, due to the proximity of Wareham to the Dorset Heath European sites, there is potential for the Neighbourhood Plan to link to this impact pathway. As such Appropriate Assessment in combination is undertaken in Chapter 5.**

Poole Harbour SPA/Ramsar (including marine component)

- 4.16 Poole Harbour SPA and Ramsar site is located within the Wareham Neighbourhood Plan area. It has been identified to be vulnerable to both increased **disturbance (including urbanisation and recreational pressure)** and human induced **changes in hydraulic conditions** (increased nutrient inputs)

Disturbance (Including Urbanisation and Recreational Pressure)

- 4.17 The HRA of the Purbecks adopted Local Plan⁵¹ identified that these European sites were vulnerable to increased recreational pressure. It also identified that new development in Wareham and Swanage would likely result in the greatest impact on these European sites in combination. As such the increase in residential development identified in the Wareham Neighbourhood Plan (and the adopted Local Plan or submitted Purbeck Local (2018 - 2034)), has the potential to adversely affect these sensitive sites.
- 4.18 **As such this impact pathway cannot be screened out from resulting in a Likely Significant Effect. Appropriate Assessment in combination is undertaken in Chapter 5.** This will also include assessment of site allocations H7, H11 and GS3.

Hydrological Changes

- 4.19 Discussions within the HRA of Purbeck's adopted Local Plan⁵² identified that there was potential for the Local Plan to potentially impact on this European site both alone and in combination. **As such, due to the proximity of Wareham to the Poole Harbour European sites, there is potential for the Neighbourhood Plan to link to this impact pathway. Appropriate Assessment in combination is undertaken in Chapter 5.**

⁵⁰ Liley D. & Tyldesley, D. (eds). (2011) Habitats Regulations Assessment of Purbeck Core Strategy; Proposed Changes to Pre-Submission. Footprint Ecology / David Tyldesley & Associates.

⁵¹ Ibid.

⁵² Ibid.

Isle of Portland to Studland Cliffs SAC and Studland to Portland SAC (marine component)

- 4.20 At its closest the Isle of Portland to Studland Cliffs SAC is located 6.1km from the Wareham Neighbourhood Plan area, whilst the Studland to Portland SAC (marine component) is located 4.5km from the Wareham Neighbourhood Plan area.
- 4.21 The Isle of Portland to Studland Cliffs SAC is identified to be vulnerable to increased **disturbance (including urbanisation and recreational pressure)**. Both Isle of Portland to Studland Cliffs SAC and Studland to Portland SAC (marine component) are identified to be vulnerable to **human induced changes in water quality conditions**.

Disturbance (Including Urbanisation and Recreational Pressure)

- 4.22 The HRA of the Purbeck's adopted Local Plan⁵³ identified that the SACs already receive a great many visitors with many being tourists and locals that originate from Swanage.
- 4.23 Whilst alone the additional 300 dwellings to be provided by the Wareham Neighbourhood Plan is unlikely to affect these European designated sites, in combination the quantum of housing to be delivered by other projects and plans (including the adopted Purbeck Local Plan or the new Local Plan undergoing Examination), could result in in combination effects. **As such, there is potential for the Neighbourhood Plan to link to this impact pathway. Appropriate Assessment in combination is undertaken in Chapter 5.**

Hydrological Changes

- 4.24 Discussions within the HRA of Purbeck's adopted Local Plan⁵⁴ identified that there was potential for the Local Plan to potentially impact on this European site both alone and in combination. **As such, there is potential for the Neighbourhood Plan to link to this impact pathway. As such Appropriate Assessment in combination is undertaken in Chapter 5.**

Dorset Heaths (Purbeck and Wareham) and Studland Dunes SAC

- 4.25 This European site is at its closest located 8.3km from the Wareham Neighbourhood Plan area and is potentially sensitive to **disturbance (including urbanisation and recreational pressure)** and **human induced changes in hydraulic conditions (i.e. increased nitrogen)**.

Disturbance (Including Urbanisation and Recreational Pressure)

- 4.26 The Dorset Heathlands Supplementary Planning Framework 2015-2020 SPD identifies that this European site has a core recreational catchment of 5km. As the Wareham Neighbourhood Plan area is more than 5km from the SAC (8.3km) increased recreational pressure stemming from the Wareham Neighbourhood Plan is not considered to be a realistic linking impact, and as such this impact pathway **can be screened out from resulting in likely significant effects both alone and in combination as a result of increased recreational pressure**.

Hydrological Changes

- 4.27 Discussions within the HRA of Purbeck's adopted Local Plan⁵⁵ identified that there was potential for the Local Plan to potentially impact on this European site both alone and in combination. **As such, there is potential for the Neighbourhood Plan to link to this impact pathway. As such Appropriate Assessment in combination is undertaken in Chapter 5.**

St Alban's Head to Durlston Head SAC

- 4.28 This European designated site is located 10.6km from the Neighbourhood Plan area and is potentially sensitive to **disturbance (including urbanisation and recreational pressure)** that would result in trampling and erosion from walking and cycling and increased nutrient from dog faeces.

⁵³ Liley D. & Tyldesley, D. (eds). (2011) Habitats Regulations Assessment of Purbeck Core Strategy; Proposed Changes to Pre-Submission. Footprint Ecology / David Tyldesley & Associates.

⁵⁴ Ibid.

⁵⁵ Ibid.

4.29 Disturbance (Including Urbanisation and Recreational Pressure)

- 4.30 The HRA of the adopted Purbeck Local Plan⁵⁶ identified that the SAC already receives a great many visitors annually (250,000) with peaks at holiday times, indicating that a great many visitors may be tourists rather than originating from within Purbeck itself. A 2000 survey identified that of the sample interviewed, 32% were day visitors and thus of relatively local origin (Durlston Management Plan, 2005-10). Whilst alone the additional 330 dwellings to be provided by the Wareham Neighbourhood Plan is unlikely to affect the European designated site, in combination the quantum of housing to be delivered by other projects and plans (including the adopted Local Plan or the latest Purbeck Local Plan undergoing Examination), could result in in combination effects. **As such, there is potential for the Neighbourhood Plan to link to this impact pathway. Appropriate Assessment in combination is undertaken in Chapter 5.**

Summary

- 4.31 The above discussion identifies two impact pathways that requires Appropriate Assessment in combination to determine potential for adverse effects on integrity as a result of the Wareham Neighbourhood Plan these are:
- Disturbance (including urbanisation, recreational pressure, and disturbance from construction and operational activities) in relation to:
 - Dorset Heaths SAC and Dorset Heathlands SPA/ Ramsar site
 - Poole Harbour SPA/Ramsar (including marine component)
 - Isle of Portland to Studland Cliffs SAC and Studland to Portland SAC (marine component)
 - St Alban's Head to Durlston Head SAC
 - Hydrological changes in relation to:
 - Dorset Heaths SAC and Dorset Heathlands SPA/ Ramsar site
 - Poole Harbour SPA/Ramsar (including marine component)
 - Isle of Portland to Studland Cliffs SAC and Studland to Portland SAC (marine component)
 - Dorset Heaths (Purbeck and Wareham) and Studland Dunes SAC

⁵⁶ Ibid.

5. Appropriate Assessment

The following impact pathways will be discussed in relation to the following European sites:

- Disturbance (Including Urbanisation and Recreational Pressure)
- Hydrological changes

Disturbance (Including Urbanisation and Recreational Pressure) 'Alone'

Poole Harbour European Sites

5.1 Both site allocations H7 - Wareham Town Northern Gateway (Gasworks and Autopoint sites) and H11 – Sandford Lane Employment Estate Safeguarding are located immediately adjacent to the Ramsar site and GS3 is within 200m of the Ramsar site. These sites thus have the potential to result in disturbance to qualifying features either during the construction or (for the employment sites) operation (and if required decommissioning) stages of the development, or effects resulting from urbanisation. However, both the overarching Submitted Purbeck Local Plan (2018-2034) Policy E7 and the Wareham Neighbourhood Plan Policy H4 provides protection to European sites. Policy H4 states: *“Development will only be supported where it would not lead to an adverse effect upon the integrity, either alone or in-combination, directly or indirectly, on nationally, European and internationally important sites.”*. This policy within the Wareham Neighbourhood Plan should ensure that the developments are carefully designed and planned to ensure that no adverse effects on the integrity of the Poole Harbour European sites occur as a result of disturbance to qualifying features either during the construction or operational (and if required decommissioning) stages of each individual development and that urbanisation does not result from the developments. **However, in order to determine that construction/ operational activities will not significantly disturb SPA or Ramsar interest features It is recommended, that the policy include the requirement for a noise impact assessment for construction (and for the two employment developments, operation) to inform a project level HRA. This addition has now been made to Policy H7 and H11.** With this recommendation in place it can be concluded that these allocations will not result in adverse effect on integrity on the Poole Harbour European Sites alone.

In Combination

Poole Harbour European Sites

5.2 The HRA of the Purbeck Local Plan Part 1⁵⁷ identified that the Poole Harbour European sites were vulnerable to increased disturbance (including urbanisation and recreational pressure). It also identified that new development in Wareham and Swanage would likely result in the greatest impact on these European sites in combination. As such the increase in residential development identified in the Wareham Neighbourhood Plan (and the Adopted Local Plan (2012) and the Purbeck Local Plan (2018-2034)), has the potential to adversely affect these sensitive sites. However, the Adopted Local Plan (2012) provides the following policy:

- Policy PH: Poole Harbour;

“Water Quality

New development may be required to incorporate measures to secure effective avoidance and mitigation of the potential adverse effects of nutrient loading on the ecological integrity of the Poole Harbour internationally designated sites.

The Council will work with neighbouring local authorities, the Environment Agency, Wessex Water and Natural England, supported by other relevant stakeholders, to secure effective and deliverable mitigation, and mechanisms that will fund and enable implementation of these measures.

Recreational Pressures

⁵⁷ Liley D. & Tyldesley, D. (eds). (2011) Habitats Regulations Assessment of Purbeck Core Strategy; Proposed Changes to Pre-Submission. Footprint Ecology / David Tyldesley & Associates.

The Council will work with neighbouring local authorities, statutory bodies and landowners to manage shoreline access to Poole Harbour and implement the Poole Harbour Aquatic Management Plan to manage water-based activities."

- 5.3 The Submitted Purbeck Local Plan (2018-2034) also provides the following protective policy building on that of the Adopted Purbeck Local Plan (2012):

- Policy E9: Poole Harbour:

'Proposals for development will not be permitted that would lead to any adverse effects upon the integrity, either alone or in combination directly or indirectly of the Poole Harbour SPA, SSSI and Ramsar site....

...Recreational effects

The Council is working with the Borough of Poole to develop a Recreation in Poole Harbour SPD. Development proposals for any net increase in homes, tourist accommodation or a tourist attraction around the edges of the harbour (as defined in the SPD) will need to avoid or mitigate adverse impacts arising from recreational activity on Poole Harbour.'

- 5.4 As the Wareham Neighbourhood Plan should be in general conformity with the overarching Purbeck Local Plan (2018-2034), does not go beyond the quantum of growth set by the Local Plan (including the submitted Local Plan undergoing Examination) and the submitted Local Plan also contains a policy addressing this issue, a conclusion of no adverse effect on integrity can be drawn in relation to the Neighbourhood Plan. The Wareham Neighbourhood Plan does acknowledge the need to accord with the Recreation in Poole Harbour SPD and Local Plan Policy E9 in Paragraph 3.3.1, supplementary text of Policy H4 – Nationally, European and Internationally Important Wildlife Sites.

All Residential Site Allocations

- 5.5 At the time of writing the Draft Poole Harbour Recreation Planning Framework 2019 -2034 Supplementary Planning Document was undergoing consultation. However, until formalised, as previously detailed, the submitted Local Plan (2018-2034) includes a protective policy as follows:

- Policy E9: Poole Harbour

'Proposals for development will not be permitted that would lead to any adverse effects upon the integrity, either alone or in combination directly or indirectly of the Poole Harbour SPA, SSSI and Ramsar site.

Recreational effects

The Council is working with the Borough of Poole to develop a Recreation in Poole Harbour SPD. Development proposals for any net increase in homes, tourist accommodation or a tourist attraction around the edges of the harbour (as defined in the SPD) will need to avoid or mitigate adverse impacts arising from recreational activity on Poole Harbour.'

- 5.6 The requirement for residential development within Wareham to adhere to this Local Plan (2018-2034) policy is included within paragraph 3.3.1 of the Neighbourhood Plan where it states: **"All development will need to accord with the Recreation in Poole Harbour SPD as per Local Plan (2018-2034) Policy E9"**. It can be concluded that the Neighbourhood Plan will not result in adverse effect on the integrity of the Poole Harbour European sites as a result of recreation from residential allocations.

Dorset Heathland European Sites

- 5.7 Due to the close proximity of the Dorset Heaths SAC and the Dorset Heathlands SPA and Ramsar site to the Neighbourhood Plan Area and individual site allocations identified by the Neighbourhood Plan, Appropriate Assessment is undertaken.

- 5.8 All site allocations are located more than 400m from the Dorset Heathlands European sites (the closest being allocation H6: Johns Road which is located 800m from the SAC), and as such impacts relating to urbanisation are not considered further. However, the entirety of the Wareham Neighbourhood Plan area is located within the 5km core recreational catchment for the Dorset Heaths European sites. As such all residential development provided by the Neighbourhood Plan has the potential to result in an adverse effect on integrity in combination. Policies that could link to this impact pathway are:

- H5 – Westminster Road. Supports net new dwellings and employment space during the Plan period (30 dwellings): Located 915m from the Dorset Heaths European sites.
- H6 – Johns Road. Supports net new dwellings during the Plan period (15 dwellings): Located 800m from the Dorset Heaths European sites.
- H7 – Wareham Town Northern Gateway (Gasworks and Autopoint sites). Supports net new dwellings (20 dwellings): located 880m from the Dorset Heaths European sites.
- H8 – Hospital and Health Centre site. Supports net new dwellings and community facilities during the Plan period (40 dwellings): Located 1.3km from the Dorset Heaths European sites.
- GS2 – Proposed Healthcare and Housing Hub (former Middle School Site) - Supports extra care housing, key worker housing, a care home and affordable housing on the site of the former Middle School (100 dwellings split between GS2 and GS3): Located 985m from the Dorset Heaths European sites.
- GS3 – Proposed Affordable Housing and Extra Care Housing Bonnets Lane Site – Supports residential development and the development of extra care housing at this location (100 dwellings split between GS2 and GS3): Located 910m from the Dorset Heaths European Site.

5.9 It should be noted that the Neighbourhood Plan should be in conformity with the Adopted Purbeck Local Plan (2012) which provides the following protective text for the Dorset Heaths European sites as follows:

- Policy DH: Dorset Heaths International Designation:

5.10 *“Development will not be permitted unless it can be ascertained that it will not lead to an adverse effect upon the integrity, of the Dorset Heaths’ International designations. The Council is jointly preparing a Heathlands DPD with affected neighbouring authorities to set out a long-term mitigation strategy to ensure that the growth planned for South East Dorset can be accommodated without having an adverse effect upon the integrity of the Dorset Heaths.”* Policy E8: Dorset heathlands from the Submitted Purbeck Local Plan (2018 – 2034) also states:

‘Development will only be permitted where it would not lead to an adverse effect upon the integrity, either alone or in-combination, directly or indirectly, of heathlands protected at the national, European and international level for their biodiversity.

To ensure that sites are not harmed, residential development involving a net increase in dwellings or other uses such as tourist accommodation and equestrian-related development:

a. will not be permitted within 400 metres of heathland, as shown on the policies map, unless, as an exception, the type and occupier of residential development would not have an adverse effect upon the sites’ integrity (e.g. nursing homes such as those limited to advanced dementia and physical nursing needs); and

b. between 400 metres and 5km of heathland such development will provide mitigation in accordance with the advice set out in the Dorset Heathlands Supplementary Planning Framework 2015-2020 SPD or appropriate to the adverse effects identified.’

5.11 This is partially reflected in the supporting text within the Neighbourhood Plan states within paragraph 3.3.1... *‘Within 400m of a protected heathland site (SAC) residential development that would involve a net increase in dwellings, tourist accommodation and equestrian related development will not be permitted. Between 400m and 5km of a heathland site mitigation measures are likely to be required to mitigate the adverse effects on the sites’ integrity. These can take the form of Heathland Infrastructure Projects (HIPs) and/or Suitable Alternative Natural Greenspace (SANG) provision in accordance with the Dorset Heathlands Plans Framework SPD.’*

5.12 In terms of the mitigation arrangement for the allocated housing within the Neighbourhood Plan to ensure there are no adverse effects on the integrity of Dorset Heaths European sites; Wareham Town Council have agreed a Statement of Common Ground (SoCG) with Dorset Council, Natural England and Henry Scott (on behalf of the Trustees of D.E. Scott 1970 Settlement (owner of Bog Lane SANG)).

5.13 There are two strategies discussed within the SoCG;

- Developments allocated north of the railway line, Policies H5 and H6 are to provide 45 dwellings over two sites e.g. Westminster Road and Johns Lane. As the total housing allocated across these two sites is below 50 dwellings and is situated on brownfield sites, the SoCG has agreed that these developments may be facilitated through the strategic SPD mechanism by way of contribution through either s106 or CIL towards HIP provision.
 - Developments allocated south of the railway line which are allocated to provide 160 dwellings and include Policy H8 (40 dwellings), Policy H7 (20 dwellings) and Policies GS2 and GS3 (100 dwellings). These sites, as those north of the railway, are being dealt with in a holistic manner e.g. are being combined, rather than on an individual basis. Therefore, as the number of dwellings is over 50, these allocations will require the provision of SANG. The SoCG has agreed that, in association with the Westgate Development on Worgret Road a SANG that has been provided at Bog Lane, Stoborough has considerable additional capacity to mitigate new residential development. The area covers 14 ha and is suitably located with suitable capacity for the number of allocated in the Wareham Neighbourhood Plan, south of the railway. All parties of the SoCG are in agreement to make that with improvement this site would be a suitable consideration for mitigating the effects of increased recreational pressure upon the Dorset Heaths European sites.
- 5.14 In addition to the allocated sites, a further 100 dwellings will be supported through windfall development. The Neighbourhood Plan assumes that the majority of these sites (66%) will be small site developments of less than 10 dwellings (Table 1. Wareham Neighbourhood Plan – Summary of Potential Housing Delivery). As the sites are all likely to be small development complying with the Dorset Heaths Plans Framework SPD is likely to take the form of contribution through either s106 or CIL towards HIP provision. However, this will need to be assessed for each individual planning application at the project level to see if it is suitable.
- 5.15 It is noted that the supporting text for the Policies H7, H8 and GS2 state '*New residential development must provide heathland mitigation in accordance with Policy H4*'.
- 5.16 **It can therefore be concluded that all policies supporting residential development will not have an adverse effect on the integrity of the Dorset Heaths European sites in combination as a result of recreation pressure.**

Isle of Portland to Studland Cliffs SAC and Studland to Portland SAC (marine component)

- 5.17 The HRA of the adopted Purbeck Local Plan⁵⁸ identified that the SACs already receive a great many visitors with many being tourists and locals that originate from Swanage. Whilst alone the additional 300 dwellings to be provided by the Wareham Neighbourhood Plan is unlikely to affect these European designated sites, in combination the quantum of housing to be delivered by other projects and plans (including the adopted Local Plan and Purbeck Local Plan (2018-2034)), could result in in combination effects. As such, due to the proximity of Wareham to the European sites, there is potential for the Neighbourhood Plan to link to this impact pathway.
- 5.18 As such at the higher tier Local Plan level, the Purbeck Local Plan includes policy to ensure that increased recreational pressure stemming from the Local Plan (including the quantum to be provided by Wareham Neighbourhood Plan) does not impact on European sites either alone or in combination as per Policy E7: Conservation of protected sites as detailed in paragraph 1.11.
- 5.19 These European sites are owned by a variety of land-owners including the National Trust and the Wildlife Trust. At a district level (and as identified in the HRA of the Purbeck Local Plan) monitoring and early warning mechanisms have been proposed. Data from such monitoring will be important in informing the potential for coastal sites to absorb additional recreation.
- 5.20 **Since this in combination issue is addressed at a strategic district-wide level it can be concluded that no adverse effect on the integrity will result and this European site alone and in combination.**

⁵⁸ Liley D. & Tyldesley, D. (eds). (2011) Habitats Regulations Assessment of Purbeck Core Strategy; Proposed Changes to Pre-Submission. Footprint Ecology / David Tyldesley & Associates.

St Alban's Head to Durlston Head SAC

- 5.21 The HRA of the adopted Purbeck Local Plan⁵⁹ identified that the SAC already receives a great many visitors annually (250,000) with peaks at holiday times, indicating that a great many visitors may be tourists rather than originating from within Purbeck itself. A 2000 survey identified that of the sample interviewed, 32% were day visitors and thus of relatively local origin (Durlston Management Plan, 2005-10). Whilst alone the additional 300 dwellings to be provided by the Wareham Neighbourhood Plan is unlikely to affect the European designated site, in combination the quantum of housing to be delivered by other projects and plans (including the adopted Local Plan and Purbeck Local Plan (2018-2034)), could result in combination effects.
- 5.22 At the higher tier Local Plan level, the Purbeck Local Plan includes policy to ensure that increased recreational pressure stemming from the Local Plan (including the quantum to be provided by Wareham Neighbourhood Plan) does not impact on European sites either alone or in combination as per Policy E7: Conservation of protected sites as detailed in paragraph 1.11.
- 5.23 **Since this in combination issue is addressed at a strategic district-wide level it can be concluded that no adverse effect on the integrity will result and this European site alone and in combination.**

Water Pollution

Alone

Poole Harbour European Sites

- 5.24 Discussions within the HRA of Purbeck's adopted Local Plan⁶⁰ identified that there was potential for the Local Plan to potentially impact on this European site both alone and in combination. As such, due to the proximity of Wareham to the Poole Harbour European sites, there is potential for the Neighbourhood Plan to link to this impact pathway.
- 5.25 Both H7 - Wareham Town Northern Gateway (Gasworks and Autopoint sites) and H11 – Sandford Lane Employment Estate Safeguarding are located immediately adjacent to Poole Harbour Ramsar site and as such are sufficiently close to the European site to result in changes in water quality as a result of direct water pollution from site runoff during the construction, operational (and if required decommissioning) stages. At the Plan level it is not possible to undertake any further assessment of this impact stemming from these two development sites as this would require the provision of the detailed design and construction details. As such this will be deferred to the individual planning application level and is not appropriate to assess at the Neighbourhood Plan level. This will not provide any deliverability issues as careful planning of the development, could potentially ensure that the developments do not affect water quality from runoff. Overarching Adopted Purbeck Local Plan (2012) policy does provide a protection to European sites (see Policies BIO: Biodiversity and Geodiversity and PH: Poole Harbour identified in paragraph 1.6 and 1.8), and the Neighbourhood Plan Paragraph 3.3.1 states... *'Developments will also be required to mitigate the impact of any increase in nitrogen produced by sewage from new homes that may adversely affect Poole Harbour, in line with the Local Plan policy'*. It is noted that supporting text to Policy H7 in paragraph 3.6.2 states *'The potential harm by aquatic pollution and disturbance to Poole Harbour SPA/Ramsar would need to be considered in consultation with Natural England.'* Nonetheless, **it is recommended that both policy H7 and H11 of the Wareham Neighbourhood Plan (or their supporting text) are amended to ensure that the development is carefully designed and planned to ensure that no adverse effects on the integrity of the Poole Harbour European sites occurs as a result of water pollution stemming from site runoff during the construction or operational (and if required decommissioning) stages of each development. This has now been added to Policy H7 and H11.**

⁵⁹ Liley D. & Tyldesley, D. (eds). (2011) Habitats Regulations Assessment of Purbeck Core Strategy; Proposed Changes to Pre-Submission. Footprint Ecology / David Tyldesley & Associates.

⁶⁰ Liley D. & Tyldesley, D. (eds). (2011) Habitats Regulations Assessment of Purbeck Core Strategy; Proposed Changes to Pre-Submission. Footprint Ecology / David Tyldesley & Associates.

In Combination

Poole Harbour European Sites

- 5.26 Discussions within the HRA of Purbeck's adopted Local Plan⁶¹ identified that there was potential for the Local Plan to potentially impact on this European site both alone and in combination. As such, due to the proximity of Wareham to the Poole Harbour European sites, there is potential for the Neighbourhood Plan to link to this impact pathway.
- 5.27 However further discussion enabled identified that this impact pathway would not result in an adverse effect on the integrity of this European site.
- 5.28 The Adopted Local Plan Policy PH: Pool Harbour states regarding Water Quality: *"New development may be required to incorporate measure to secure effective avoidance and mitigation of the potential adverse effects of nutrient loading on the ecological integrity of the Poole Harbour internationally designated sites.*
- The council will work with neighbouring authorities, the Environment Agency, Wessex Water and Natural England, supported by other relevant stakeholders, to secure effective and deliverable mitigation, and me mechanisms that will fund and enable implementation of these measures.*
- 5.29 The submitted Purbeck Local Plan (2018-2034) Policy E9: Poole Harbour builds on this policy and states regarding nitrogen neutrality:
- "Development proposals for any net increase in homes, tourist accommodation or a tourist attraction, will provide mitigation in accordance with the advice set out in The Nitrogen Reduction in Poole Harbour SPD, if the sewerage drains into the Poole Harbour catchment."*
- 5.30 Dorset Council is a signatory to the Nitrogen Reduction in Poole Harbour SPD⁶² and reference to the requirement of adhering with this is noted in paragraph 3.3.1 of the Neighbourhood Plan as follows: *Developments will also be required to mitigate the impact of any increase in nitrogen produced by sewage from new homes that may adversely affect Poole Harbour, in line with Local Plan policy'*. This is a strategic document between Dorset Council and Bournemouth, Christchurch and Poole Council to that provides a strategic approach to achieve nitrogen neutrality within Poole Harbour.
- 5.31 As the Wareham Neighbourhood Plan is in conformity with the overarching Purbeck Local Plan, **this impact pathway will not result in an adverse effect on the integrity of the Poole Harbour sites in combination as a result of hydrological changes.**

Dorset Heathland European Sites

- 5.32 Discussions within the HRA of Purbeck's adopted Local Plan⁶³ identified that there was potential for the Local Plan to potentially impact on this European site both alone and in combination, and as such, due to the proximity of Wareham to the Dorset Heath European sites, there is potential for the Neighbourhood Plan to link to this impact pathway. However further discussion resulted in a conclusion that this impact pathway would not result in an adverse effect on the integrity of this European site in combination with other projects and plans.
- 5.33 As the Wareham Neighbourhood Plan is in conformity with the overarching Purbeck Local Plan, **this impact pathway will not result in an adverse effect on the integrity of the Dorset Heathland sites in combination as a result of hydrological changes.**

Isle of Portland to Studland Cliffs SAC and Studland to Portland SAC (marine component)

- 5.34 Discussions within the HRA of Purbeck's adopted Local Plan⁶⁴ identified that there was potential for the Local Plan to potentially impact on this European site both alone and in combination. However further discussion enabled identified that this impact pathway would not result in an adverse effect on the integrity of these European sites. As the Wareham Neighbourhood Plan is in conformity with the overarching

⁶¹ Ibid.

⁶² <https://www.poole.gov.uk/EasySiteWeb/GatewayLink.aspx?allid=42779> [accessed 19/11/2018]

⁶³ Liley D. & Tyldesley, D. (eds). (2011) Habitats Regulations Assessment of Purbeck Core Strategy; Proposed Changes to Pre-Submission. Footprint Ecology / David Tyldesley & Associates.

⁶⁴ Ibid.

Purbeck Local Plan, **this impact pathway will not result in an adverse effect on the integrity of these European sites in combination as a result of hydrological changes.**

Dorset Heaths (Purbeck and Wareham) and Studland Dunes SAC

- 5.35 Discussions within the HRA of Purbeck's adopted Local Plan⁶⁵ identified that there was potential for the Local Plan to potentially impact on this European site both alone and in combination. However further discussion enabled identified that this impact pathway would not result in an adverse effect on the integrity of this European site. As the Wareham Neighbourhood Plan is in conformity with the overarching Purbeck Local Plan, **this impact pathway will not result in an adverse effect on the integrity of this European site in combination as a result of hydrological changes.**

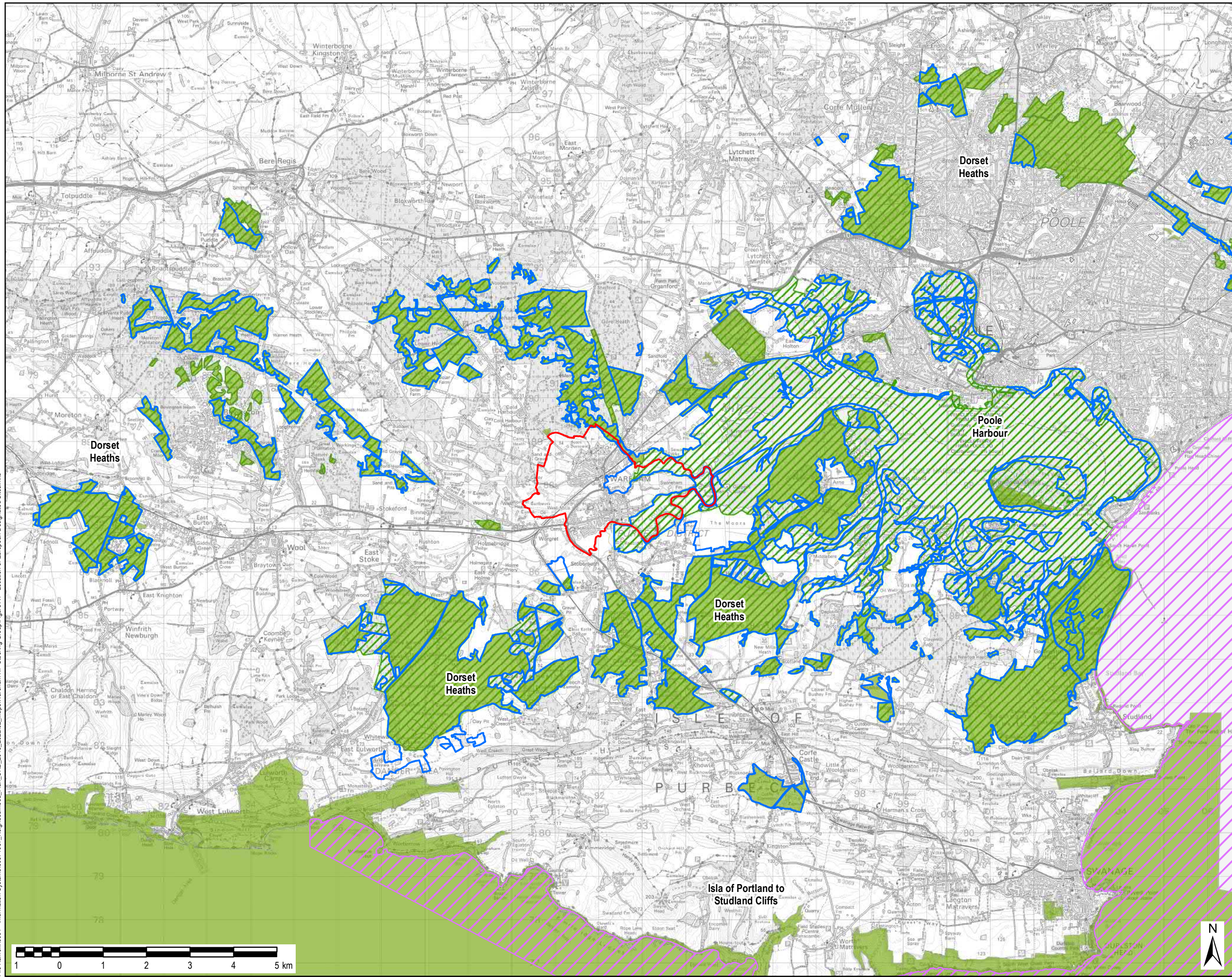
⁶⁵ Ibid.

6. Conclusions

- 6.1 Both a Test of Likely Significant Effects and a subsequent Appropriate Assessment was undertaken of the Wareham Neighbourhood Plan Revised Regulation 14 draft (2020) both alone and in combination. This was undertaken in the context of the overarching policy provided by the adopted Purbeck Local Plan and, for purposes of future proofing, the submitted Local Plan currently undergoing Examination. Key impact pathways considered in this HRA were:
- Disturbance (Including Urbanisation and Recreational Pressure)
 - Water pollution
 - Increased water abstraction
 - Loss of functionally linked habitat
- 6.2 Following the test of Likely Significant Effects, Appropriate Assessment was undertaken of impact pathways relating to disturbance (including urbanisation and recreational pressure) on the Poole Harbour and Dorset Heaths European sites, and water quality on the Poole Harbour European sites. To ensure no adverse effects on the integrity of these European sites occurred as a result of the Wareham Neighbourhood Plan changes to policy wording were recommended as follows:
- **It was recommended that both policy H7 and H11 of the Wareham Neighbourhood Plan (or their supporting text) were amended to ensure that the development is carefully designed and planned to ensure that no adverse effects on the integrity of the Poole Harbour European sites occurs as a result of water pollution stemming from site runoff during the construction or operational (and if required decommissioning) stages of each development. This has now been done for Policy H11.**
 - **It was recommended that Policy H7, Policy H11 and Policy GS3 of the Wareham Neighbourhood Plan (or their supporting text) were amended to include the requirement for a noise impact assessment to inform a project level HRA in order to determine that construction and operational activities will not significantly disturb SPA or Ramsar interest features. This has now been done.**
- 6.3 It is considered that with the inclusion of the above recommendations, the Wareham Neighbourhood Plan will not result in an adverse effect on the integrity of European sites either alone or in combination with other projects or plans.

Appendix A Figures

File Name: I:\5004 - Information Systems\60571087_Neighbourhood_Plan_CPB_2018_202202_Maps\Wareham NP Steering Group\Figure A1 - Location of European Designated Sites.mxd



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- LEGEND**
- Wareham Neighbourhood Plan Area
 - Ramsar
 - Potential Special Protection Area (pSPA)
 - Special Area of Conservation (SAC)
 - Special Protection Area (SPA)

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Purpose of Issue
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Client
WAREHAM NEIGHBOURHOOD PLAN STEERING GROUP

Project Title
WAREHAM NEIGHBOURHOOD PLAN HABITAT REGULATIONS ASSESSMENT

Drawing Title
LOCATION OF EUROPEAN DESIGNATED SITES

Drawn CN	Checked JW	Approved RP	Date 04/02/2020
AECOM Internal Project No. 60571087		Scale @ A3 1:80,000	

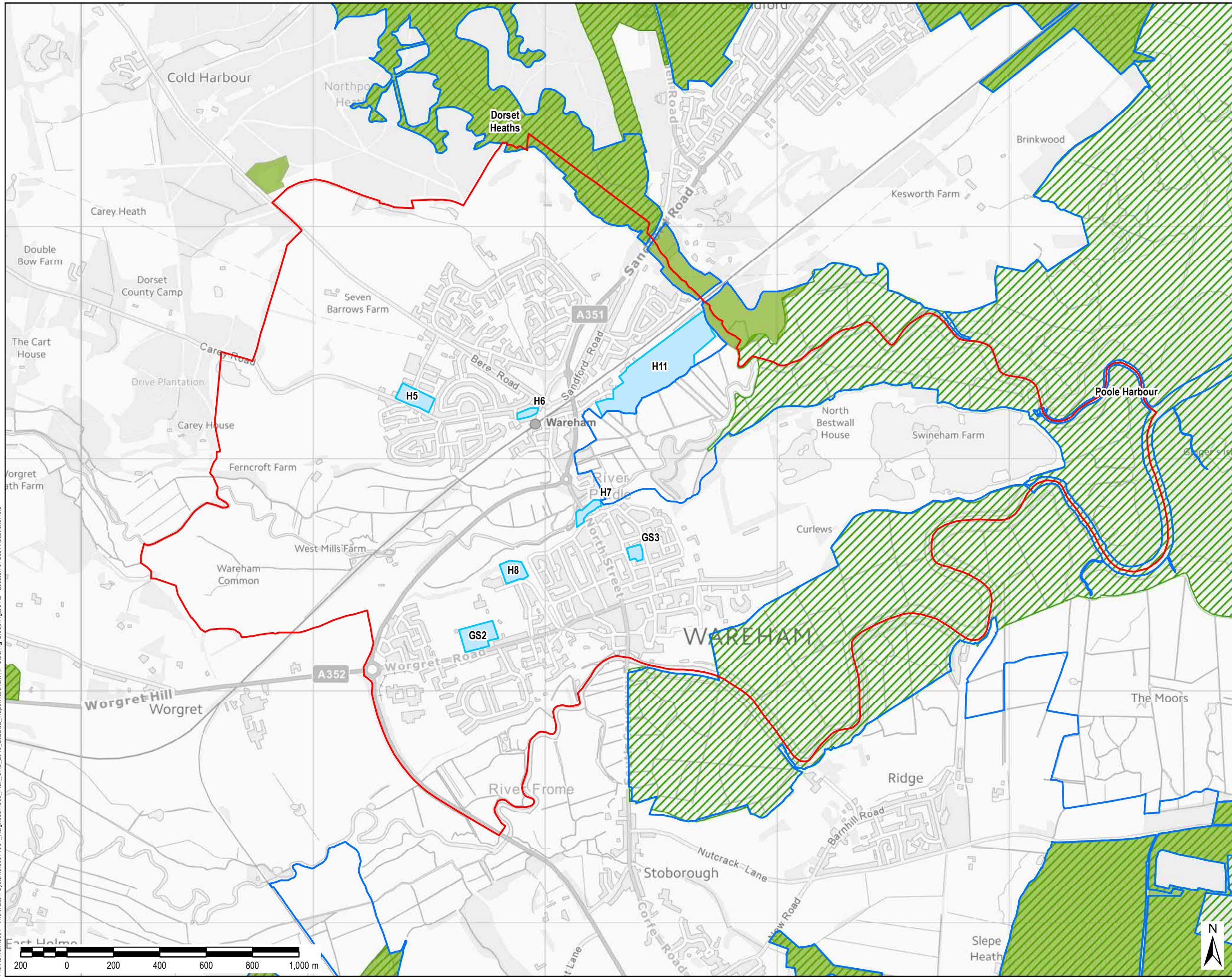
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File Name: I:\5004 - Information Systems\60571087_Neighbourhood_Plan_CPB_2018_2022\02_Maps\Wareham NP Steering Group\Figure A2 - Location of Site Allocations.mxd



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LEGEND

- Wareham Neighbourhood Plan Area
- Site Option
- Ramsar
- Special Area of Conservation (SAC)
- Special Protection Area (SPA)
- H5 – Westminster Road
- H6 – John's Road
- H11 – Sandford Lane Employment Estate Safeguarding
- H7 – Wareham Town Northern Gateway (Gasworks and Autopoint site)
- H8 – Hospital and Health Centre Site
- GS2 – Proposed Healthcare and Housing Hub (former Middle School Site)
- GS3 – Proposed Affordable Housing and Extra Care Housing Bonnets Lane Site

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Purpose of Issue
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Client
WAREHAM NEIGHBOURHOOD PLAN STEERING GROUP

Project Title
WAREHAM NEIGHBOURHOOD PLAN HABITAT REGULATIONS ASSESSMENT

Drawing Title
LOCATION OF SITE ALLOCATIONS

Drawn CN	Checked JW	Approved RP	Date 10/02/2020
AECOM Internal Project No. 60538603		Scale @ A3 1:15,000	

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Appendix B European Designated Site Information

6.4 See Table B1 below:

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Table B.1: Interest Features, Conservation Objectives and Site Vulnerabilities/Threats to Site Integrity

Site Name	Qualifying Features	Conservation Objectives ⁶⁶	Potential Integrity/Vulnerabilities ⁶⁷	Threats to Site
Dorset SPA	Heathlands <i>Annex II</i> Breeding: <ul style="list-style-type: none">Nightjar <i>Caprimulgus Europaeus</i>,Dartford warbler <i>Sylvia undata</i>,Woodlark <i>Lullula arborea</i> Wintering: <ul style="list-style-type: none">Hen harrier <i>Circus cyaneus</i>,Merlin <i>Falco columbarius</i>	<i>‘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;</i> <ul style="list-style-type: none"><i>The extent and distribution of the habitats of the qualifying features</i><i>The structure and function of the habitats of the qualifying features</i><i>The supporting processes on which the habitats of the qualifying features rely</i><i>The population of each of the qualifying features, and,</i><i>The distribution of the qualifying features within the site.’</i>	<ul style="list-style-type: none">Inappropriate habitat managementOutdoor sports and leisure activities, recreational activitiesGrazingInvasive non-native speciesHuman induced changes in hydraulic conditionsBiocenotic evolution, successionHabitat fragmentationWild fires/ arson	
Dorset Ramsar	Heathlands <i>Ramsar criterion 1:</i> <ul style="list-style-type: none">Contains particularly good examples of (i) northern Atlantic wet heaths with cross-leaved heath <i>Erica tetralix</i> and (ii) acid mire with <i>Rhynchosporion</i>, largest example in Britain of southern Atlantic wet heaths with Dorset heath <i>Erica ciliaris</i> and cross-leaved heath <i>Erica tetralix</i>. <i>Ramsar criterion 2:</i> <ul style="list-style-type: none">Supports one nationally rare and13 nationally scarce wetland plant species,At least 28 nationally rare wetland invertebrate species. <i>Ramsar criterion 3:</i> <ul style="list-style-type: none">Has a high species richness and high ecological diversity of wetland habitat types and transitions and lies in one of the most biologically-rich wetland areas of lowland Britain, being continuous with three other Ramsar sites: Poole Harbour, Avon Valley and The New Forest. <i>Species occurring at levels of international importance:</i> <ul style="list-style-type: none">Southern damselfly <i>Coenagrion mercuriale</i>.	Not Applicable	<ul style="list-style-type: none">Acid rainPollution (unspecified)	
Dorset Heaths SAC	<i>Annex I</i> <ul style="list-style-type: none">Northern Atlantic wet heaths with <i>Erica tetralix</i>.European dry heaths.Depressions on peat substrates of the <i>Rhynchosporion</i>.Molinia meadows on calcareous, peaty or clayey-silt-laden soils <i>Molinion caeruleae</i>Calcareous fens with <i>Cladium mariscus</i> and species of the <i>Caricion davallianae</i>Alkaline fensOld acidophilous oak woods with <i>Quercus robur</i> on sandy plains <i>Annex II species</i> <ul style="list-style-type: none">Southern damselflyGreat Crested Newt <i>Triturus cristatus</i>	<i>‘Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring;</i> <ul style="list-style-type: none"><i>The extent and distribution of qualifying natural habitats and habitats of qualifying species</i><i>The structure and function (including typical species) of qualifying natural habitats</i><i>The structure and function of the habitats of qualifying species</i><i>The supporting processes on which qualifying natural habitats and the habitats of qualifying species rely</i><i>The populations of qualifying species, and,</i><i>The distribution of qualifying species within the site.’</i>	<ul style="list-style-type: none">Inappropriate habitat managementOutdoor sports and leisure activities, recreational activitiesGrazingInvasive non-native speciesHuman induced changes in hydraulic conditionsHabitat fragmentationInvasive non-native speciesWild fires/ arsonAir pollutionGrazing	
Poole Harbour SPA	A wetland of international importance by regularly supporting at least 20,000 waterfowl: <ul style="list-style-type: none">Breeding common tern <i>Sterna hirundo</i>, sandwich tern <i>Sterna sandvicensis</i>, and Mediterranean gull <i>Larus melanocephalus</i>.Wintering little egret <i>Egretta garzetta</i>, Icelandic population of black-tailed godwit <i>Limosa limosa</i>, Eurasian spoonbill <i>Platalea leucorodia leucorodia</i>, avocet <i>Recurvirostra avocetta</i>, and shelduck <i>Tadorna tadorna</i>.Water bird assemblages 25,176 individuals	<i>‘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;</i> <ul style="list-style-type: none"><i>The extent and distribution of the habitats of the qualifying features</i><i>The structure and function of the habitats of the qualifying features</i><i>The supporting processes on which the habitats of the qualifying features rely</i><i>The population of each of the qualifying features, and,</i><i>The distribution of the qualifying features within the site.’</i>	<ul style="list-style-type: none">Water pollutionAir pollution, air-borne pollutantsFisheriesCoastal squeezeOutdoor sports and leisure activities, recreational activitiesDeer	

⁶⁶ Taken from Natural England's Access to Evidence site [<http://publications.naturalengland.org.uk/category/6490068894089216>]

⁶⁷ Taken from Natura 2000- Standard Data Forms [<http://jncc.defra.gov.uk/protectedsites/>]

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Poole Ramsar	Harbour	<p>Ramsar criterion 1:</p> <ul style="list-style-type: none">• Best and largest example of a bar-built estuary with lagoonal characteristics in Britain. <p>Ramsar criterion 2:</p> <ul style="list-style-type: none">• Two species of nationally rare plant,• One nationally rare alga,• At least three British Red data book invertebrate species. <p>Ramsar criterion 3:</p> <ul style="list-style-type: none">• Mediterranean and thermo Atlantic halophilous scrubs, dominated by shrubby seablite <i>Suaeda vera</i>; calcareous fens with great fen sedge <i>Cladium mariscus</i>; transitions from saltmarsh through to peatland mires.• Nationally important populations of breeding waterfowl including: Common tern, and Mediterranean gull; and Nationally important populations of wintering; Avocet <p>Ramsar criterion 5:</p> <ul style="list-style-type: none">• Internationally important assemblages of waterfowl. 24709 waterfowl (5 year peak mean 1998/99-2002/2003) <p>Ramsar criterion 6:</p> <ul style="list-style-type: none">• Internationally important populations of common shelduck, black tailed godwit, and avocet.	Not Applicable	<ul style="list-style-type: none">• Eutrophication• Introduction of non- native animal species
Isle of Portland to Studland Cliffs SAC		<p>Annex I</p> <ul style="list-style-type: none">• Vegetated sea cliffs of the Atlantic and Baltic Coasts• Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) - Important orchid sites <p>Annex II</p> <ul style="list-style-type: none">• Early gentian <p>Annex I habitats present as a qualifying feature, but not a primary reason for selection of this site</p> <ul style="list-style-type: none">• Annual vegetation of drift lines	<p><i>‘Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring;</i></p> <ul style="list-style-type: none">• <i>The extent and distribution of qualifying natural habitats and habitats of qualifying species</i>• <i>The structure and function (including typical species) of qualifying natural habitats</i>• <i>The structure and function of the habitats of qualifying species</i>• <i>The supporting processes on which qualifying natural habitats and the habitats of qualifying species rely</i>• <i>The populations of qualifying species, and,</i>• <i>The distribution of qualifying species within the site.’</i>	<ul style="list-style-type: none">• Undergrazing• Inappropriate scrub control• Invasive non-native species• Outdoor sports and leisure activities, recreational activities• Water pollution• Habitat fragmentation• Inappropriate management
Solent and Dorset Coast pSPA:		<p>Foraging populations associated with:</p> <ul style="list-style-type: none">• Common tern• Sandwich tern• Little tern <i>Sterna albifrons</i>;	<p><i>‘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;</i></p> <ul style="list-style-type: none">• <i>The extent and distribution of the habitats of the qualifying features</i>• <i>The structure and function of the habitats of the qualifying features</i>• <i>The supporting processes on which the habitats of the qualifying features rely</i>• <i>The population of each of the qualifying features, and,</i>• <i>The distribution of the qualifying features within the site. ‘</i>	<ul style="list-style-type: none">• Water pollution• Outdoor sports and leisure activities, recreational activities
Studland to Portland SAC (marine component)		<p>Annex I Habitat:</p> <ul style="list-style-type: none">• Reefs	<p><i>‘Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring;</i></p> <ul style="list-style-type: none">• <i>The extent and distribution of qualifying natural habitats</i>• <i>The structure and function (including typical species) of qualifying natural habitats, and</i>• <i>The supporting processes on which the qualifying natural habitats rely’</i>	<p>Operations likely to affect the habitats are:</p> <ul style="list-style-type: none">• Water pollution• Fisheries

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Dorset (Purbeck Wareham) Studland SAC	Heaths and Dunes	<p>Annex I</p> <ul style="list-style-type: none">• Embryonic shifting dunes• Shifting dunes along the shoreline with <i>Ammopila arenaira</i>• Atlantic decalcified fixed dunes (Calluno-Ulicetea)• Humid dune slacks• Oligotrophic waters containing very few minerals of sandy plains <i>Littorelletalia uniflorae</i>• Northern Atlantic wet heaths and <i>Eric tetralix</i>• Temperate Atlantic wet heaths with <i>Erica ciliaris</i> and <i>Erica tetralix</i>• European dry heaths• Depressions on peat substrates of the <i>Rhynchosporion</i>• Bog woodland <p>Annex I habitats present as a qualifying feature, but not a primary reason for selection of this site</p> <ul style="list-style-type: none">• Molinia meadows on calcareous, peaty or clayey-silt-laden soils <i>Molinion caeruleae</i>• Calcareous fens with <i>Cladium mariscus</i> and species of the <i>Caricion davallianae</i>• Alkaline fens• Old acidophilous oak woods with <i>Quercus robur</i> on sandy plains <p>Annex II species</p> <ul style="list-style-type: none">• Great crested newt• Southern damselfly	<p><i>'Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring;</i></p> <ul style="list-style-type: none">• <i>The extent and distribution of qualifying natural habitats and habitats of qualifying species</i>• <i>The structure and function (including typical species) of qualifying natural habitats</i>• <i>The structure and function of the habitats of qualifying species</i>• <i>The supporting processes on which qualifying natural habitats and the habitats of qualifying species rely</i>• <i>The populations of qualifying species, and,</i>• <i>The distribution of qualifying species within the site.'</i>	<ul style="list-style-type: none">• Inappropriate habitat management• Outdoor sports and leisure activities, recreational activities• Grazing• Invasive non-native species• Human induced changes in hydraulic conditions• Habitat fragmentation• Invasive non-native species• Wild fires/ arson• Air pollution• Grazing
St Alban's Head to Durlston Head SAC		<p>Annex I</p> <ul style="list-style-type: none">• Vegetated sea cliffs of the Atlantic and Baltic Coasts• Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) - Important orchid sites <p>Annex II</p> <ul style="list-style-type: none">• Early gentian <p>Annex I habitats present as a qualifying feature, but not a primary reason for selection of this site</p> <ul style="list-style-type: none">• Greater horseshoe bat <i>Rhinolophus ferrumequinum</i>	<p><i>'Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring;</i></p> <ul style="list-style-type: none">• <i>The extent and distribution of qualifying natural habitats and habitats of qualifying species</i>• <i>The structure and function (including typical species) of qualifying natural habitats</i>• <i>The structure and function of the habitats of qualifying species</i>• <i>The supporting processes on which qualifying natural habitats and the habitats of qualifying species rely</i>• <i>The populations of qualifying species, and,</i>• <i>The distribution of qualifying species within the site.'</i>	<ul style="list-style-type: none">• Undergrazing• Inappropriate scrub control• Invasive non-native species• Outdoor sports and leisure activities, recreational activities• Water pollution• Habitat fragmentation• Inappropriate management

Appendix C Screening Assessment of the Wareham Neighbourhood Plan Policies.

Table C.1: Test of Likely Significant Effects of the Wareham Neighbourhood Plan Submission Draft (October 2018) Policies

Policies identified in **green** in the “Test of Likely Significant Effects (Alone)” column do not provide for impact pathways that could link to a European designated site. Policies identified in **green** in the “Test of Likely Significant Effects (In Combination)” column do not provide for impact pathways that could link to a European designated site in-combination with any other policies, Plans or Projects.

Policies identified in **orange** in the “Test of Likely Significant Effects (Alone)” column have potential to provide for impact pathways that could link to a European designated site. Policies identified in **orange** in the “Test of Likely Significant Effects (In Combination)” column have potential to provide for impact pathways that could link to a European designated site ‘in-combination’ with any other policies, Plans or Projects. In both cases the policy/policies is/are taken forward to the next stage of assessment – Appropriate Assessment and discussed within this document.

Policy Number	Description	Test of Likely Significant Effects (Alone)	Test of Likely Significant Effects (In Combination)
H1 - Overall Housing Requirement	Over a period of fifteen years from 2019 to 2034 about 300 new dwellings (on average 20 per year) are proposed for the Neighbourhood Plan Area of which 100 are anticipated as windfall development, and 205 through site allocations. This level of growth is expected to meet the housing requirement for the Plan Area over the Plan period.	Due to the small quantum of development provided by this policy it is unlikely that likely significant effects will result alone. However, in combination assessment is required.	Potential linking impact pathways present. This policy identifies a quantum of housing to be delivered during the plan period: Potential linking impact pathways present include: <ul style="list-style-type: none">Recreational pressureWater pollutionIncreased water abstraction
H2 – Housing Mix	New residential development should comprise predominantly smaller dwellings with 1, 2 or 3 bedrooms. On larger sites providing 10 or more new dwellings, there should be a mix of dwelling sizes and types, and at least 10% of any open market provision should be suitable for residents with limited mobility or who may require a degree of care. On sites of 10 or more dwellings, or which have a site area of more than 0.5Ha, 40% affordable housing will be sought on greenfield sites and 30% affordable housing will be sought on brownfield sites. The inclusion of other affordable routes to affordable home ownership can comprise up to 40% of the total affordable housing requirement, if a local need for such tenures can be evidenced.	This policy will not result in a likely significant effect alone or in combination. This is a development management policy relating to housing mix. There are no linking impact pathways present.	
H3 – Stock of Smaller Dwellings	The subdivision of larger homes will be supported provided that there is adequate parking and private amenity space for future occupants.	This policy will not result in a likely significant effect alone or in combination. This is a development management policy relating to the subdivision of larger homes to smaller dwellings. Whilst there is potential for an increase in population as a result of this policy, any increase would be very small. This policy does not identify and quantum or location of development and as such there are no linking impact pathways present.	
H4 – Nationally, European and Internationally Important Wildlife Sites	Development will only be supported where it would not lead to an adverse effect upon the integrity, either alone or in-combination, directly or indirectly, on nationally, European and internationally important sites. Development should avoid having an adverse impact on protected species and, wherever possible, features of local nature conservation/ biodiversity interest should be protected and appropriately managed.	This policy will not result in a likely significant effect alone or in combination. This policy is a protective policy for European sites, which will ensure development does not cause an adverse effect upon designated sites.	
H5 – Westminster Road	The redevelopment of the southern part of the Westminster Road Industrial Estate for residential development plus employment will be supported. The main vehicular access should be from Bere Road. New development must demonstrate good quality design as set out in Policy LDP2 and must contribute to tackling climate change as set out in Policy LDP3, and conform with the following principles of development (as illustrated in figure 22): <ul style="list-style-type: none">Create active building frontages along Carey Road and Westminster RoadDevelopment to be generally 2 storeys in heightAvenue of trees to be created along Westminster Road to soften the appearance of the streetMain access to the development to be from Bere RoadVehicular access to individual sites to be from Westminster Road	Due to the small quantum of development provided by this policy it is unlikely that likely significant effects will result alone. However, in combination assessment is required.	Potential linking impact pathways present. Although a quantum is not stated within the policy wording the supporting suggests 30 dwellings at this site. As the policy supports new dwellings and employment development at this location the policy has potential linking impact pathways which include: <ul style="list-style-type: none">Recreational pressureWater pollutionIncreased water abstraction This policy will be subject to Appropriate Assessment.

	<ul style="list-style-type: none"> • Large oak tree at junction of Carey Road and Westminster Road to be retained. <p>New residential development must provide heathland mitigation in accordance with Policy H4.</p>		
H6 – Johns Road	<p>The redevelopment of the industrial land on the north side of Johns Road for residential development will be supported, subject to the retention of the trees and hedgerows adjoining Carey Road and Bere Road. Development should include measures to ensure that future occupants are not unduly disturbed by railway operations.</p> <p>New development must demonstrate good quality design as set out in Policy LDP2 and must contribute to tackling climate change as set out in Policy LDP3, and conform with the following principles of development (illustrated in figure 24):</p> <ul style="list-style-type: none"> • Create an active building frontage along Carey Road • Development to be generally 2 storeys in height • Retain the trees fronting onto Carey Road and Bere Road • Vehicular access to be from Johns Road • Parking to be at the rear of homes fronting onto Johns Road <p>New residential development must provide heathland mitigation in accordance with Policy H4.</p>	Due to the small quantum of development provided by this policy it is unlikely that likely significant effects will result alone. However, in combination assessment is required.	<p>Potential linking impact pathways present.</p> <p>Although a quantum is not stated within the policy wording the supporting text identifies 15 new dwellings. As the policy supports new dwellings at this location, potential linking impact pathways present include:</p> <ul style="list-style-type: none"> • Recreational pressure • Water pollution • Increased water abstraction <p>This policy will be subject to Appropriate Assessment.</p>
H7 – Wareham Town Northern Gateway (Gasworks and Autopoint sites)	<p>The redevelopment of the former gasworks site and Autopoint garage site for residential development will be supported subject to providing a high-quality design at this northern entry point to the original Saxon town. New development must demonstrate good quality design as set out in Policy LDP1 and must contribute to tackling climate change as set out in Policy LDP3, and conform with the following principles of development (illustrated in figure 27):</p> <ul style="list-style-type: none"> • Development to create an attractive gateway to the north of the town, with a new landmark building on the Autopoint site up to 3 storeys in height • Existing landmark building on frontage of gasworks site to be retained (and converted to residential) • Buildings other than landmark buildings to be mainly 2 storeys in height • Create an urban active building frontage onto North Street • Treatment of riverside frontage to create an attractive edge • Retain existing trees around both sites • Consider retention of 95 North Street as positively contributing to the character of the Conservation Area • Avoid development within the flood risk area on the Autopoint site (more detailed site survey needed to confirm extent) <p>Regard must be given to potential flood risk. No new dwellings should be built within the areas at risk of flooding, and regard must be given to minimising potential flood risk both within the site and to adjoining properties. New residential development must also provide heathland mitigation in accordance with Policy H4. A ground contamination assessment will be required on both sites and if appropriate mitigation will be required.</p>	<p>A total of 20 dwellings are provided for on this site within the supporting text. Due to the small quantum of development provided by this policy it is unlikely that likely significant effects will result alone. However, due to its location immediately adjacent to Poole Harbour Ramsar site the following impact pathways require consideration alone and this policy cannot be screened out:</p> <ul style="list-style-type: none"> • Disturbance to SPA features from construction and operational activities • Urbanisation • Water pollution (from site runoff) <p>This policy will be subject to Appropriate Assessment.</p>	<p>Potential linking impact pathways present.</p> <p>This policy provides for up to 20 net new dwellings at this location.</p> <p>Potential linking impact pathways present include:</p> <ul style="list-style-type: none"> • Recreational pressure <p>This policy will be subject to Appropriate Assessment.</p>
H8 – Former Hospital and Health Centre site	<p>Provided that the GP surgery is relocated, the redevelopment for residential development of the former Wareham Health Centre (GP Surgery), Wareham Hospital and potentially Ambulance Station will be supported, subject to the retention of trees along the northern boundary.</p> <p>New development must demonstrate good quality design as set out in Policy LDP2 and must contribute to tackling climate change as set out in Policy LDP3, and conform with the following principles of development (illustrated in figure 29):</p> <ul style="list-style-type: none"> • Create active building frontages onto Streche Road and onto the access road within the site • Enhance the setting of the listed former workhouse by creating active building frontages facing west • Create an active building frontage facing the common • Buildings to be generally 2 storeys in height • Vehicular access to the site to use the existing eastern access point and a new access road to be 	The supporting text provides for 40 dwellings at this site. Due to the small quantum of development provided by this policy it is unlikely that likely significant effects will result alone. However, in combination assessment is required.	<p>Potential linking impact pathways present.</p> <p>The supporting text of this policy suggest approximately 40 net new dwellings at this location. Potential linking impact pathways present include:</p> <ul style="list-style-type: none"> • Recreational pressure • Water pollution • Increased water abstraction <p>This policy will be subject to Appropriate Assessment.</p>

	<p>curved so as to contain views along it</p> <ul style="list-style-type: none"> • There should be a pedestrian and cycle route through the site • Parking to be provided to the rear or alongside homes • Trees and vegetation surrounding the site to be retained and strengthened within a publicly maintained area <p>New residential development must also provide heathland mitigation in accordance with Policy H4.</p>		
H9 – Settlement Boundary	Residential infilling will be supported within the settlement boundary shown on the Policies Map providing it complies with the other policies in the Plan. New development must demonstrate good quality design as set out in Policy LDP1 and 2 and must contribute to tackling climate change as set out in Policy LDP3. New development must also provide heathland mitigation in accordance with Policy H4.	<p>This policy will not result in a likely significant effect alone or in combination.</p> <p>This is a development management policy relating to residential general infill. No location or quantum of development is identified and the policy indicates that support for infill is contingent on other policies in the plan including H4 (which explicitly states that development will only be supported if it does not have an adverse effect on the integrity of European sites). There are no linking impact pathways present.</p>	
H10 – Parking Space	New residential development other than care homes within the Conservation Area, other than care homes and extra care housing, will be required to provide at least one dedicated parking space per unit provided on-plot or nearby within the site. New residential development elsewhere should meet the Highway Authority's normal parking standards.	<p>This policy will not result in a likely significant effect alone or in combination.</p> <p>This is a development management policy relating to parking spaces. There are no linking impact pathways present.</p>	
H11 – Sandford Lane Employment Estate	<p>The Sandford Lane area defined on the Policies Map should be safeguarded for employment use. New buildings and roofs should be low in profile, dark in colour and non-reflective to blend into the landscape when viewed from the AONB and Town Walls to the east and south. A comprehensive scheme of planting of native species along the southern and eastern sides of the Estate is required to further assimilate new development into the landscape. Developments should have sufficient on-site parking to avoid the need to park on Sandford Lane itself.</p> <p>New development must demonstrate good quality design as set out in Policy LDP2 and must contribute to tackling climate change as set out in Policy LDP3. New development must also be carefully designed and planned to ensure that no adverse effects on the integrity of the Poole Harbour European sites occurs as a result of water pollution stemming from site runoff during the construction or operational (and if required decommissioning) stages of each development. A noise impact assessment be carried out to inform a project level HRA in order to determine that construction and operational activities will not significantly disturb SPA or Ramsar interest features. Lighting should be designed to minimise the impact on the adjoining AONB and nature conservation sites.</p>	<p>Potential linking impact pathways present alone.</p> <p>Whilst this policy is essentially a development management policy for the Sandford Lane Employment Estate (it does not identify any specific quantum or type of employment development), due to the sites proximity to European sites (it is adjacent to Poole Harbour Ramsar site), there is potential for adverse effects on the European sites to result. Potential linking impact pathways present include:</p> <ul style="list-style-type: none"> • Urbanisation • Water pollution (from direct site runoff) • Disturbance to SPA features from construction and operational activities <p>This policy will be subject to Appropriate Assessment.</p>	<p>Not applicable as Appropriate Assessment required for impact pathways that could link the Policy to a European site alone. Therefore, in combination assessment is not required.</p>
TC1 – Town Centre Boundary	The Town Centre boundary is defined as shown on the Policies Map Inset 2.	<p>This policy will not result in a likely significant effect alone or in combination.</p> <p>This is a development management policy identifying the Town Centre boundary. No development is provided by this policy. There are no linking impact pathways present.</p>	
TC2 – Safeguarding Retail Provision within the Town Centre	<p>Development within the Town Centre will be supported if all of the following criteria are met;:</p> <p>a) the proposed ground floor use falls within the NPPF definition of a main town centre use;</p> <p>b) the proposed use and any associated physical alterations would maintain an active and publicly-accessible ground floor use that enlivens the streetscene;</p> <p>c) the proposed use would not undermine the character and diversity of that part of the Town Centre; and</p> <p>d) the proposed use and associated works would not harm the historic interest and character of the Conservation Area and Listed Buildings.</p>	<p>This policy will not result in a likely significant effect alone or in combination.</p> <p>This is a development management policy relating to safeguarding land for retail provision with the town centre. There are no linking impact pathways present.</p>	
TC3 - Protecting Vitality and Viability of Carey Road shops	Within the defined Local Centre on Carey Road, the proposed ground floor use must fall within the NPPF definition of a main town centre use, appropriate to a local centre. Any proposed use and any associated physical alterations must maintain an active and publicly accessible ground floor use that enlivens the streetscene and does not undermine the ability of the Local Centre to meet the everyday needs of its catchment population.	<p>This policy will not result in a likely significant effect alone or in combination.</p> <p>This is a development management policy relating to protecting the vitality and viability of Carey Road shops. There are no linking impact pathways present.</p>	
TC4 – Resisting Out of Town Class A Retail Floorspace	Any additional retail floorspace, including that for convenience goods (such as food), shall be situated within the Town Centre or the Local Centre in north Wareham. Proposals for new Class A floorspace of 200m ² or over outside the Town Centre or the Local Centre in North Wareham must be accompanied by a retail impact assessment. They will only be supported if it can be demonstrated that they would not have a significant adverse impact on the vitality and viability of Wareham Town Centre and the Local Centre at Carey Road in North Wareham. They should have followed the sequential test (prioritising town or local centre sites over edge of centre locations);	<p>This policy will not result in a likely significant effect alone or in combination.</p> <p>This is a development management policy relating to resisting out of town retail floorspace. There are no linking impact pathways present.</p>	

	and only if suitable sites are not available (or expected to become available within a reasonable period) should out of centre sites be considered.	
TC5 – Maintaining and Enhancing the Public Realm	Where new development creates new public realm within the Conservation Area the selection of paving materials, street lighting and other street furniture should be consistent and in keeping with the Town's Historic character and not adversely impact on pedestrian mobility.	This policy will not result in a likely significant effect alone or in combination. This is a development management policy relating to the public realm. There are no linking impact pathways present.
TC6 – Maintaining and Enhancing the Street Scene	Within the Town Centre shop fronts must be designed to be in keeping with the Town's historic character, of traditional design and materials and in scale with the building. Signs should be of sympathetic and traditional design, using materials appropriate to their context. They should not be bulky in appearance of internally illuminated. New shop fronts should in addition: i) Respect the period and style of the building in which they are fitted and display a unity with its architecture; ii) Consist of historically accurate elements of traditional shopfront design; iii) Be constructed of traditional materials; iv) Reflect the scale and proportions of traditional shopfronts in the streetscene; v) Reflect traditional frontage widths of the area and relate to individual property units; vi) Enhance the visual amenities of the area; and, vii) Should not include external security shutters.	This policy will not result in a likely significant effect alone or in combination. This is a development management policy relating to street scene. There are no linking impact pathways present.
TC7 – Protecting Town Centre Car Parks and Garages	The development of the Town's public car parks and garages as shown on the Policies Map Inset 2 will only be supported where there are overriding planning benefits that would improve the vitality of the Town Centre, or the loss of parking is appropriately mitigated through suitable replacement provision elsewhere. The redevelopment of private garage blocks within the Walls will only be supported if it can be demonstrated that any losses (taking into account the existing parking provision and any additional parking requirements from the proposed development) can be accommodated without impacting on the availability of parking for the Town Centre	This policy will not result in a likely significant effect alone or in combination. This is a development management policy relating to protecting car parks from development within the Town Centre. There are no linking impact pathways present.
PC1 – Main Pedestrian and Cycling Routes	The main pedestrian and cycle routes within the Neighbourhood Plan area shown on Fig 38 and on the policies map, including the surface level crossing across the railway line next to the Station, shall be retained and improvements to the accessibility of these routes supported. New development should have good convenient routes to the Town Centre and main movement attractors and should not adversely impact on the convenience and attractiveness of pedestrian and cycle routes or the Town's heritage assets.	This policy will not result in a likely significant effect alone or in combination. This is a positive development management policy relating to key pedestrian and cycle routes. None of these link directly to a European site. There are no linking impact pathways present.
PC2 – Pedestrian and Cycle Route Infrastructure Improvements	The following improvements to the foot and cycle network are supported and are priorities for S106/CIL expenditure: <ul style="list-style-type: none"> Widen footway for pedestrians and cyclists along Bere Road; Provide electric charging points at Wareham Railway Station for electric vehicles; Provide lockable storage for cycles at Wareham Railway Station Improve links between the town and the facilities to the west, by increasing the width of the footpath along West Street to improve access to proposed Health Hub at the Former Middle School Site in Worgret Road, creating a new footpath on north side of Worgret Road between the new development at Westgate and the Health Hub and Primary School; Improve footpath connecting Tantinoby Lane to Tantinoby Farm for wheelchair use; Improve Sandford Lane link to the Industrial Estate for pedestrians, cyclists and wheelchair users. 	This policy will not result in a likely significant effect alone or in combination. This is a positive development management policy relating to pedestrian and cycle route improvements. None of these locations link directly to a European site. There are no linking impact pathways present.
PC3 – Sustainable Transport	The bay platform at Wareham Station as indicated on the Policy Map, shall be safeguarded for uses that support sustainable transport. Any plans for this area will need to demonstrate that the favourable conservation status of the local sand lizard population would not be compromised	This policy will not result in a likely significant effect alone or in combination. Whilst this policy is essentially a development management policy for the safeguarding of land to enable the re-opening of Swanage to Wareham rail line, the location of the land required is adjacent to Sand lizard habitat. As such, dependant on the size of population of sand lizard present, there are potential linking impact pathways relating to loss of functionally linked supporting habitat. However, whilst rare, sand lizards are not a designated feature of the European sites subject to assessment. As such there are no linking impact pathways present.
PC4 – Parking at Wareham Railway Station	In the event of the former sidings on the north side of the railway line east of the crossing being declared surplus to operational rail requirements the site should be safeguarded for future parking space for rail users/ community use. Any plans for this area will need to demonstrate that the	This policy will not result in a likely significant effect alone or in combination. Whilst this policy is essentially a development management policy for the safeguarding of land, the location of the land required is adjacent to Sand lizard habitat. As such, dependant on the size of population of sand lizard present, there are potential linking impact

	favourable conservation status of the local sand lizard population would not be compromised.	pathways relating to loss of functionally linked supporting habitat. However, whilst rare, sand lizards are not a designated feature of the European sites subject to assessment. As such there are no linking impact pathways present.
GS1 – Protection of Local Green Infrastructure	Development other than works to preserve their recreational function and openness will be strongly resisted on the following protected Local Green Spaces within the Town shown on the policies map: A. Hauses Field, Northmoor B. Land between A351 and Northmoor Way C. Various green spaces on Northmoor Park and Northport D. Northmoor Park Allotments E. Green space opposite Carey Shops F. Drax Avenue, Mistover Road & Westgate Play Areas G. The Sward opposite the Railway Station roundabout H. The Wareham Town Walls Scheduled Ancient Monument, whose setting will also be protected from harmful development I. The former Wareham Middle School Playing Fields J. Purbeck School and Primary School Playing Fields K. Recreation Ground L. Bestwall Allotments M. Rugby Club N. War Memorial and land adjacent to St Martin's Church O. Castle Close garden site of Norman Castle which forms a landmark when viewed from the south of the town.	This policy will not result in a likely significant effect alone or in combination. This is a positive development management policy relating to the protection of Local Green Infrastructure. This is positive as recreational spaces have the potential to divert recreational pressure away from sensitive European designated sites. There are no linking impact pathways present.
GS2 – Proposed Health Care and Housing Hub (former Middle School Site)	<p>Development of the area of the former Wareham Middle School buildings, playgrounds and parking areas as a new Health Care and Housing Hub for the Town and surrounding area which may include extra care housing, key worker housing, a care home facility and affordable housing will be supported, subject to the provision of:</p> <ul style="list-style-type: none">space for the relocated Wareham GP Surgery and Ambulance Station, on the former Middle School site with a view to providing improved primary health care facilities;sufficient parking space for staff and patients and residents;vehicular access to the adjoining Primary School from Worgret Road together with parking and drop off space for parents/carers;a contribution towards changing facilities to encourage use of the recreation ground and playing fields to east and west. <p>A master plan and design code for the development of the site will be submitted to and approved by the Local Planning Authority in consultation with the Town Council prior to any development.</p> <p>New development must demonstrate good design quality as set out in Policy LDP2 and must contribute towards tackling climate change as set out in LDP3, and conform with the following principles of development (illustrated in figure 46):</p> <ul style="list-style-type: none">New health hub to form a landmark building fronting onto Worgret RoadBuildings generally 2 and 3 storeys in heightActive building frontages onto Worgret Road and onto the access roads through the siteCreate new street leading off Worgret Road with vista terminated by landmark buildingA tree lined avenue through the site to be created linking the Recreation Ground with the Playing Fields, with on-street parkingRetention of trees in good condition along Worgret Road and the western edge of the development site along the Playing FieldsMain vehicular access to be at the eastern side of the site to enable the Health Hub and related visitor parking to be within the western part of the siteA drop off point to be provided at the front of the health hub fronting Worgret RoadA new vehicular access and shared parking to be provided for the Primary School and Playing FieldsA new footway to be provided along Worgret Road between the eastern access point and Westgate <p>New residential development must also provide heathland mitigation in accordance with Policy H4.</p>	<p>This policy supports 100 net new dwellings at this location and the GS3 – Bonnets Lane site. due to the small quantum of houses proposed across the two sites it is unlikely that likely significant effects will result alone. However, in combination assessment is required.</p> <p>Potential linking impact pathways present. This policy supports 100 net new dwellings at this location and the GS3 – Bonnets Lane site. Potential linking impact pathways present include:</p> <ul style="list-style-type: none">Recreational pressureWater pollutionIncreased water abstraction <p>This policy will be subject to Appropriate Assessment.</p>

GS3 – Proposed Affordable Housing and Extra Care Housing, Bonnets Lane Site	<p>Redevelopment of Bonnets Lane site shown on the Policies Map for Housing will be supported. New development must demonstrate good quality design as set out in Policy LDP1 and must contribute to tackling climate change as set out in policy LDP3, and conform with the following principles of development (illustrated in figure 48):</p> <ul style="list-style-type: none">• Create active building frontages to Bonnets Lane, St Martins Lane, Brixey's Lane and Moretons Lane. The frontages along Brixey's Lane and Moretons Lane should follow the curves of the street with small front gardens enclosed by walls, railings or hedges• New 3 storey landmark building fronting Bonnets Lane/St Martins Lane terminating the vista along Dollins Lane• Buildings generally 2 storeys in height and have a rhythm to respect the fine grain of the Town. A large monolithic institutional building will not be supported• Car parking should be retained within the site and not dominate the street frontage• The preferred location for communal parking would be accessed from Bonnets Lane in the southern part of the site with appropriate boundary definition enclosed by walls, railings or hedges and trees around the proposed parking area to be retained <p>A noise impact assessment be carried out to inform a project level HRA in order to determine that construction and operational activities will not significantly disturb SPA or Ramsar interest features. New residential development must also provide heathland mitigation in accordance with Policy H4.</p>	<p>This policy supports between 100 net new dwellings (affordable housing) and care home facilities at this location and the GS2 – Former Middle School site due to the small quantum of housing between this site and the GS2 site it is unlikely to cause likely significant impacts, however, due to its location within 400m of Poole Harbour Ramsar site the following impact pathways require consideration alone and this policy cannot be screened out:</p> <ul style="list-style-type: none">• Urbanisation <p>This policy will be subject to Appropriate Assessment.</p>	<p>Potential linking impact pathways present.</p> <p>This policy supports between 100 net new dwellings at this location and the GS2 – Former Middle School site but does not identify any quantum. Potential linking impact pathways present include:</p> <ul style="list-style-type: none">• Recreational pressure• Water pollution• Increased water abstraction <p>This policy will be subject to Appropriate Assessment.</p>
LDP1 – Design of New Development within Wareham Conservation Area	<p>All new development must demonstrate good quality design which responds to and integrates with the site's context as well as the overall character of the town. Development proposals which meet the following criteria will be supported:</p> <ul style="list-style-type: none">• The grid street layout of the Town should be maintained and, where appropriate, continued, avoiding cul-de-sacs where possible;• Buildings should be sited next to or close to the street with window and doors to create an active frontage to the street;• Buildings should be two, or in some instances, three storeys in height, but with a ground floor level close to street level and low floor to ceiling heights to respect the smaller scale of older properties within the walls. Roofs should be steep pitched;• Buildings should be sited on street corners to provide a tight sense of urban enclosure;• Buildings should articulate established plot widths to establish a rhythm to the architecture in a street;• Brick walls or railings should define the garden areas. Paving should be natural stone;• Parking should be to the rear of or set behind the front face of the building to avoid dominating the street scene;• Buildings should reflect, where appropriate, the Town's Georgian heritage by either following a simple Georgian style with sash windows with narrow glazing bars and deep reveals or cottage style with casement windows with narrow glazing bars;• Front doors should be functional not false;• Building materials should be red/brown brick, laid Flemish bond with narrow joints and plain clay tiles for the roof;• Meter boxes, flues, pipes (other than cast iron, aluminium or similar down pipes), vents, solar panels, satellite dishes etc. should not be visible from the street.	<p>This policy will not result in a likely significant effect alone or in combination.</p> <p>This is a development management policy relating to the design of new development. There are no linking impact pathways present.</p>	
LDP2 - Design of New Development outside of Wareham Conservation Area	<p>All new development must demonstrate good quality design which responds to and integrates with the site's context. Development proposals which meet the following criteria will be supported. Development should:</p> <ul style="list-style-type: none">• Respect site qualities / characteristics of an area including topography, slopes, Seven Barrows Ancient Monument and its setting;• Provide a street layout which maximises permeability (choice or routes) on the site through, where appropriate a loose grid network of streets that maximises ease of access for the pedestrian and cyclist and connects to nearby developments;	<p>This policy will not result in a likely significant effect alone or in combination.</p> <p>This is a development management policy relating to the design of new development. There are no linking impact pathways present.</p>	

	<ul style="list-style-type: none">• Provide a clear hierarchy of streets and spaces readily identifiable by their width, alignment and sense of enclosure to reinforce the legibility (ease of finding your way about) of the settlement;• Build active frontages to create a safe and vibrant public realm with buildings close to or on the back of the street with windows positioned to ensure informal surveillance of all public space;• Clearly define public space with walls, hedges, or railings;• Provide parking on plot or nearby and not dominate the street scene;• Ensure legibility by designing buildings at key locations to incorporate memorable forms or features;• Develop a local design vocabulary. Establish a palette of locally distinctive architectural features and building materials. Ensure quality workmanship.	
LDP3 – Sustainable Design	<p>All new development proposals must contribute to tackling climate change by ensuring that:</p> <ul style="list-style-type: none">• buildings are orientated (where compatible with Policy LPD1) and designed to use passive design features to minimise the need for artificial light, heating and cooling and maximise solar gain;• the layout of the development maximises opportunities for use of common walls to limit winter heat loss;• public and commercial buildings meet at least BREEAM Very Good standard• the design, construction method and materials achieve an energy efficient building and include grey water recycling;• biodiversity is supported through the design of buildings incorporating nesting and roosting spaces and open space supports native habitats and using native species;• trees are planted to improve biodiversity and air quality and provide shade;• open water features are provided which support native habitats and use native species as part of sustainable drainage systems;• sufficient refuse and recycling storage and bicycle parking should be provided to ensure a high quality and well managed streetscape and encourage cycle use.• at least 1, and where possible 2, covered cycle spaces should be provided per dwelling• all new homes should have private amenity space that provides a pleasant space in which to enjoy the outdoors in both sunlight and shade• details of charging points for electric vehicles should be provided for all new homes and work places	<p>This policy will not result in a likely significant effect alone or in combination.</p> <p>This is a development management policy relating to the design of new development. There are no linking impact pathways present.</p>
LDP4 – Wareham Station Approaches Enhancement Area	<p>The area around the Station and its approaches shall be enhanced and future development should be of high-quality design in accordance with LDP2 to improve the appearance of this important gateway into the Town. Where enhancements may impact on operational railway land, it is recommended that Network Rail is consulted at an early stage. New development must also contribute to tackling climate change as set out in Policy LDP3.</p>	<p>This policy will not result in a likely significant effect alone or in combination.</p> <p>This is a development management policy relating to the development at the Wareham Station Approaches Enhancement Area. There are no linking impact pathways present.</p>

Appendix D The Main Urban Effects on Lowland Heaths in Dorset⁶⁸

Reduction in area	<ul style="list-style-type: none"> Mid 18C c36,000 ha to 1996 7373 ha (Webb and others 2000). 	N
Fragmentation of heaths	<ul style="list-style-type: none"> Fragmentation of heaths 768 fragments, 88% < 10ha (Webb & Haskins 1980). 	N
Supporting habitats	<ul style="list-style-type: none"> Less semi-natural habitat adjoining heaths. 	poss
Predation	<ul style="list-style-type: none"> Cat/rat predation on ground nesting birds and reptiles. 	poss
Disruption to hydrology	<ul style="list-style-type: none"> Diversion of pre-existing natural water sources away from heathland catchments. Rapid run-off onto heaths from urban areas. 	N
Pollution	<ul style="list-style-type: none"> Changes in pH of water supplies to heathland. Enrichment and pollutants from urban run-off. Pollutants from overflows, spills, accidents 	N
Sand and gravel working with land-fill after use	<ul style="list-style-type: none"> Mineral working destroying habitat and disrupting hydrology. Polluted water can leak from landfill. 	N
Enrichment	<ul style="list-style-type: none"> Dog excrement causes vegetation change along sides of paths. Rubbish dumping by roads and from gardens. 	Y
Roads	<ul style="list-style-type: none"> Increased fire risk from car thrown cigarettes. Pollution/enrichment causing vegetation change from vehicles in transport corridor. Roads forming barriers to species mobility. Road kills increasing mortality rates. Noise and light pollution from traffic. 	N
Service infrastructures both over and under heathland	<ul style="list-style-type: none"> Disturbance during construction and maintenance. Leakage from underground pipes and sewers. Changes to heathland hydrology. Poles providing bird predator look-out posts. 	N

⁶⁸ Extract from the Dorset Heathlands Planning Framework (2015-2020) SPD. <https://www.bournemouth.gov.uk/planningbuilding/PlanningPolicy/PlanningPolicyFiles/HeathlandSPDOct2015/Dorset-Heathlands-SPD-Oct-2015.pdf>

Disturbance	<ul style="list-style-type: none"> • Changes in breeding bird and animal distributions. • Reduction in breeding success of birds/animals. 	Y
Trampling	<ul style="list-style-type: none"> • Changes to vegetation. • Creation of bare areas and subsequent soil erosion. • Damage to bare ground reptile and invertebrate habitats and populations. • Increases in path and track networks. • Damage to archaeological features. 	Y
Fire	<ul style="list-style-type: none"> • Increased frequency of fires with majority in spring and summer. • Long term vegetation changes. • Increased mortality of heathland animals/birds. • Fragmentation/reduction of habitat on heaths. 	Y
Vandalism	<ul style="list-style-type: none"> • Vandalism Damage to signs and fences. 	Y
Public hostility to conservation management	<ul style="list-style-type: none"> • Opposition to management e.g. tree felling, fencing and grazing. 	Y
Management costs	<ul style="list-style-type: none"> • Greatly increased management costs on urban heaths. 	Y

