

New Milton Neighbourhood Plan HRA

Locality

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Quality information

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1. Introduction

Background to the project

- 1.1 AECOM was appointed by Locality to assist in undertaking a Habitats Regulations Assessment (HRA) of the Draft version of the new Neighbourhood Plan for the New Milton Neighbourhood Plan Group (hereafter referred to as the 'Neighbourhood Plan' or the 'Plan'). The objectives of the assessment are to:
 - Identify any aspects of the Neighbourhood Plan that would cause a likely significant effect on any Natura 2000 sites, otherwise known as European Sites, which include Special Areas of Conservation (SACs), candidate SACs (cSACs), Special Protection Areas (SPAs) and potential SPAs (pSPAs) and as a matter of Government policy, Ramsar sites, both in isolation and in combination with other plans and projects;
 - Determine whether appropriate assessment would be required; and
 - Undertake an analysis to inform the appropriate assessment, with a view to whether any aspects of the plan would have an adverse effect on the integrity of any European sites.

Legislation

- 1.2 The need for Habitats Regulations Assessment is set out within Article 6 of the EC Habitats Directive 1992, and interpreted into British law by the Conservation of Habitats and Species Regulations 2017. The ultimate aim of the Directive is to "maintain or restore, at favourable conservation status, natural habitats and species of wild fauna and flora of Community interest" (Habitats Directive, Article 2(2)). This aim relates to habitats and species, not the European sites themselves, although the sites have a significant role in delivering favourable conservation status.
- 1.3 The Habitats Directive applies the precautionary principle to European sites. Plans and projects can only be permitted having ascertained that there will be no adverse effect on the integrity of the site(s) in question. Plans and projects with predicted adverse impacts on European sites may still be permitted if there are no alternatives to them and there are Imperative Reasons of Overriding Public Interest. (IROPI) as to why they should go ahead. In such cases, compensation would be necessary to ensure the overall integrity of the site network.
- 1.4 In order to ascertain whether or not site integrity will be affected, a Habitats Regulations Assessment should be undertaken of the plan or project in question:

Box 1. The legislative basis for Appropriate Assessment

Habitats Directive 1992

Article 6 (3) states that:

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

Conservation of Habitats and Species Regulations 2017 (as amended)

The Regulations state that:

"A competent authority, before deciding to ... give any consent for a plan or project which is likely to have a significant effect on a European site ... shall make an appropriate assessment of the implications for the site in view of that sites conservation objectives... The authority shall agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the European site".

- 1.5 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 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.
- 1.6 In 2018, the 'People Over Wind' European Court of Justice ruling1 determined that 'mitigation' (i.e. measures that are specifically introduced to avoid or reduce the harmful effects of a plan or project) should not be taken into account when forming a view on likely significant effects. Mitigation should instead only be taken into account at the 'appropriate assessment' stage. Appropriate assessment is not a technical term: it simply means 'an assessment that is appropriate' for the plan or project in question. As such, the law purposely does not prescribe what it should consist of or how it should be presented; these are decisions to be made on a case by case basis by the competent authority.

Report structure

Section 2 of this report summarises the methodology for the assessment. Section 3 identifies the possible pathway by which adverse effects on European protected sites could arise. Section 4 discusses the results from the test of likely significant effects and Section 5 covers the Appropriate Assessment. Background Information on all the European sites discussed in this Report are present within Appendix A. Figure 2 of Appendix C presents a map showing all internationally important wildlife sites discussed. The full initial policy screening table and settlement screening table are present in Appendix B.

¹ People Over Wind and Sweetman v Coillte Teoranta (C-323/17)

2. Methodology

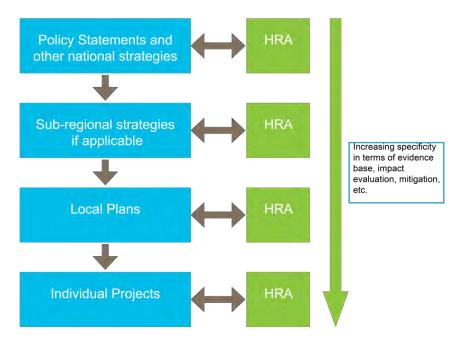
Introduction

2.1 This section sets out our approach and methodology for undertaking the HRA. Habitats Regulations Assessment itself operates independently from the Planning Policy system, being a legal requirement of a discrete Statutory Instrument.

A proportionate assessment

- Project-related HRA often requires bespoke survey work and novel data generation in order to accurately determine the significance of adverse 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 CLG guidance² makes it clear that when implementing HRA of land-use plans, the 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 In other words, there is a tacit acceptance that appropriate assessment can be tiered and that all impacts are not necessarily appropriate for consideration to the same degree of detail at all tiers (Box 2).
- 2.6 For a Local 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 town, including layout of greenspace and type of development to be delivered in particular locations, yet these data will not be decided until subsequent stages.
- 2.7 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; it must be assumed that a policy/measure is likely to have an impact leading to a significant adverse effect upon a European site unless it can be clearly established otherwise.

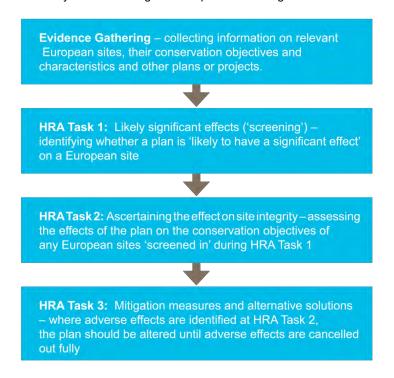
² CLG (2006) Planning for the Protection of European Sites, Consultation Paper



Box 2. Tiering in HRA of Land Use Plans

The process of HRA

- 2.8 The HRA has been carried out in the continuing absence of formal Government guidance. CLG released a consultation paper on AA of Plans in 2006³. As yet, no further formal guidance has emerged.
- 2.9 Box 3 below outlines the stages of HRA according to current draft CLG guidance. The stages are essentially iterative, being revisited as necessary in response to more detailed information, recommendation and any relevant changes to the plan until no significant adverse effects remain.



Box 3. Four-Stage Approach to Habitats Regulations Assessment

In practice, this broad outline requires some amendment in order to feed into a developing land use plan such as a Neighbourhood Plan. The following process has been adopted for carrying out the HRA.

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³ Ibid

Physical scope

- 2.11 The physical scope of the assessment i.e. the range of European sites to be considered will be based upon a combination of tracing impact pathways and using distances derived from various studies.
- 2.12 The internationally important wildlife sites (also known as European sites) of relevance to this HRA are shown in Table 2-1. Full details of reasons for designation, conservation objectives and key vulnerabilities are presented in Appendix A. These internationally important wildlife sites are identified in Appendix A, Figure 1. These sites like wholly or partly within the New Milton Parish or within the surrounding sphere of influence.

Table 2-1. Physical scope of the HRA

European Sites

	The New Forest SAC		
Heathland/Bog Sites	New Forest Ramsar		
	Dorset Heaths SAC		
	Dorset Heathlands Ramsar		
	New Forest SPA		
Heathland Bird Sites	New Forest Ramsar		
	Dorset Heathlands SPA		
Riverine Sites	River Avon SAC		
	Solent & Southampton Water Ramsar		
Coastal/Wetland Sites	Solent Maritime SAC		
Coastal/Wetland Sites	Avon Valley Ramsar		
	Solent & Isle of Wight Lagoons		
	Solent & Southampton Water Ramsar		
Coastal/Wetland Bird Sites	Solent Southampton Water SPA		
Coastal/Welland Dild Siles	Avon Valley Ramsar		
	Avon Valley SPA		

2.13 Although within 10km of the New Milton Parish boundary the South Wight SAC and Isle of Wight Downs SAC have been scoped out of this report as there are no linking pathways of impact.

The 'in-combination' scope – other plans and projects

- 2.14 It is a requirement of the Regulations that the impact and effects of any plan being assessed are not considered in isolation but in combination with other plans and projects that may also be affecting the European sites(s) in question.
- In practice, 'in-combination assessment' is of greatest importance when the Neighbourhood Plan would otherwise be screened out because the individual contribution is inconsequential. It is neither practical nor necessary to assess the 'in-combination' effects of the Neighbourhood Plan in the context of all other

plans and projects within the region. The principal other plans and projects that have been considered for in-combination effects are:

- Southampton Local Plan (Adopted 2015)
- New Forest District Local Plan (Adopted 2014)
- Christchurch and East Dorset Local Plan (Adopted 2014)
- West Dorset, Weymouth and Portland Local Plan (Adopted 2015)
- The Island Plan Core Strategy (Adopted 2012)
- Gosport Borough Local Plan (Adopted 2015)
- Fareham Borough Local Plan (Adopted 2011)
- Test Valley Borough Revised Local Plan (Adopted 2016)
- The Portsmouth Plan (Adopted 2012)
- Draft Havant Borough Local Plan to 2036
- Adopted Chichester Local Plan: Key Policies (Adopted 2015)
- Adopted East Hampshire Joint Core Strategy to 2028
- New Forest National Park Core Strategy (2010)
- New Forest National Park Submission Draft Local Plan 2016 2036 (January 2018)

Stage One: Likely Significant Effect test (screening)

2.16 The first stage of any Habitats Regulations Assessment is a Likely Significant Effect (LSE) test essentially a high level assessment to decide whether the full subsequent stage known as Appropriate Assessment is required. The essential question is:

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

- 2.17 The objective is to 'screen out' those plans and projects (or site allocations/policies) that can, without any detailed appraisal, be said to be unlikely to result in significant adverse effects upon European sites, usually because there is no mechanism or pathway for an adverse interaction with European sites. This stage is undertaken in Section 4 of this report.
- 2.18 In evaluating significance, AECOM have relied on our professional judgement as well as the results of previous stakeholder consultation regarding development impacts on the European sites considered within this assessment.

Stage Two: Appropriate Assessment

- 2.19 European Site(s) which have been 'screened in' during the previous Task will 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 will be incorporated where necessary.
- 2.20 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 Likely Significant Effects. 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. For the air quality pathway the appropriate assessment is where detailed traffic and air quality modelling is reported.
- 2.21 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 Likely Significant Effects 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)).

2.22 The analysis first subjects each policy or site allocation to screening based upon potential pathways of impact. That is documented in Table 6-1 of Appendix B. The results of that screening are summarised in Section 4. Policies that cannot be screened out are then taken forward to appropriate assessment in Section 5. Therefore, it should be noted that Appendix B does not present a summary of the whole assessment process.

3. Pathways of Impact

Recreational Pressure and Disturbance

Introduction

- Recreational use of a European site has the potential to:
 - Prevent appropriate management or exacerbate existing management difficulties;
 - Cause damage through erosion and fragmentation;
 - Cause eutrophication as a result of dog fouling; and,
 - Cause disturbance to sensitive species, particularly ground-nesting birds and wintering wildfowl.
- 3.2 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.
- 3.3 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. Parts of the Wealden Heaths Phase II SPA, for example, are managed by the National Trust. At these sites, access is encouraged and resources are available to ensure that recreational use is managed appropriately.

Mechanical/Abrasive Damage and Nutrient Enrichment

- Most types of terrestrial European site can be affected by soil compaction and erosion, which can arise as a result of visits by walkers, cyclists, horse-riders and users of off-road vehicles. Walkers with dogs contribute to pressure on sites through nutrient enrichment via dog fouling and also have potential to cause greater disturbance to fauna as dogs are less likely to keep to marked footpaths and move more erratically. Motorcycle scrambling and off-road vehicle use can cause serious erosion, as well as disturbance to sensitive species.
- 3.5 New Milton Parish borders an internationally designated site (The New Forest SAC, SPA & Ramsar site) designated for habitats and species that could be adversely affected by excessive trampling and erosion to their supporting habitats.

Disturbance

- Concern regarding the effects of disturbance on birds stems from the fact that they are expending energy unnecessarily and the time they spend responding to disturbance is time that is not spent feeding⁴. 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 have to sustain a greater number of birds⁵.
- 3.7 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, nest abandonment, 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/death.6

⁴ Riddington, R. et al. 1996. The impact of disturbance on the behaviour and energy budgets of Brent geese. Bird Study

⁵ Gill, J.A., Sutherland, W.J. & Norris, K. 1998. The consequences of human disturbance for estuarine birds. RSPB Conservation Review 12: 67-72

⁶ Riley, J. 2003. Review of Recreational Disturbance Research on Selected Wildlife in Scotland. Scottish Natural Heritage.

- 3.8 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. Visitor survey work has been undertaken for both the Solent coast and the New Forest. The issue at the Solent Coast is addressed in the Solent Recreation Mitigation Strategy⁷ and on the website http://www.birdaware.org/. The surveys undertaken to identify the mitigation strategy identified that all net new housing within 5.6km of the Solent European sites would result in recreational pressure that required mitigation. For New Forest an analysis undertaken by Footprint Ecology⁸ identified that 75% of regular visitors to the New Forest live within 10km of the SAC/SPA. New Milton Parish lies well within 10km of the New Forest and part of the parish (south-east of the mainline railway) also lies within 5.6km of the Solent Maritime SAC and Solent & Southampton Water SPA/Ramsar site.
- 3.9 The following European designated sites are vulnerable to recreational pressure and/or disturbance resulting from the Plan either alone or 'in-combination' with other plans and projects:
 - The New Forest SAC, SPA and Ramsar
 - Solent and Southampton Water SPA and Ramsar
 - Solent Maritime SAC
- 3.10 The following European designated sites have been scoped out of due to either distance from site allocations (in the case of the Dorset Heathlands, which is 8km from the parish boundary at the closest) or having low vulnerability to recreational pressure:
 - Dorset Heathlands SPA and Ramsar
 - Dorset Heaths SAC
 - Avon Valley SPA and Ramsar
 - River Avon SAC
 - Solent and Isle of Wight Lagoons SAC

Loss of Functionally Linked Land

- 3.11 While most European sites have been geographically defined in order to encompass the key features that are necessary for the coherence of their structure and function, this is not the case for all such sites. Due to the highly mobile nature of waterfowl, 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.
- 3.12 The Solent and Southampton Water SPA and Ramsar are notified partly for their over-wintering populations of dark-bellied Brent goose (*Branta bernicla bernicla*). However, studies have identified that many feeding sites for this species around the Solent fall outside of the statutory nature conservation site boundaries. The majority of Brent goose feeding sites are amenity/recreation grasslands with little intrinsic nature conservation interest, and therefore are vulnerable to loss or damage from development. This also applies to some high tide wader roosts in the Solent. Sites that support Brent goose and waders are presented as interactive maps at this link: https://solentwbgs.wordpress.com/page-2/. If there is overlap between sites to be developed and parcels used by Brent goose or waders (particularly if core areas, primary support areas or secondary support areas are affected) mitigation would be required. Mitigation recommendations for loss of such sites are provided in the Solent Waders and Brent Goose Strategy: Interim Guidance on Mitigation and Off-setting Requirements⁹.

⁷ Bird Aware Solent. (2017) Solent Recreation Mitigation Strategy. December 2017.

⁸ Sharp, J., Lowen, J.& Liley, D. (2008). Changing patterns of visitor numbers within the New Forest National Park, with particular reference to the New Forest SPA. Unpublished report by Footprint Ecology for the New Forest National Park Authority

⁹ Solent Waders and Brent Goose Strategy Steering Group. (2018) Solent Waders and Brent Goose Strategy: Interim Guidance on Mitigation and Off-setting Requirements. March 2018.

- 3.13 The following European designated sites are theoretically vulnerable to loss of functionally linked land resulting from the Plan either alone or 'in-combination' with other plans and projects:
 - The New Forest SAC, SPA and Ramsar; and
 - Solent and Southampton Water SPA and Ramsar

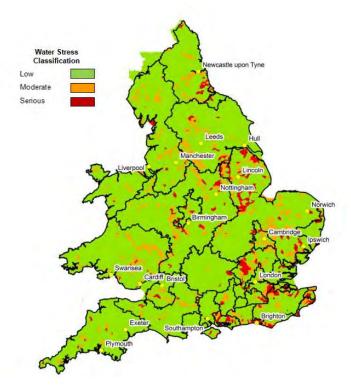
Increased Water Demand and Impacts on Water Quality

Introduction

- 3.14 The following European designated sites are theoretically vulnerable to impacts on water quantity and quality resulting from the Plan either alone or 'in-combination' with other plans and projects:
 - Solent & Southampton Water SPA & Ramsar
 - Solent Maritime SAC
 - Avon Valley SPA and Ramsar
 - River Avon SAC

Water Demand

- 3.15 It can be seen from
- 3.16 Box 44 that the area surrounding New Milton is generally an area of low water stress (coded green).



Box 4. Areas of water stress within England. 10

3.17 Initial investigation indicates that New Milton lies within the area serviced by Bournemouth Water (supply) and Southern Water (sewerage and waste water). Bournemouth Water provides drinking water to a population of 450,000 across parts of Dorset and Hampshire. Most of the water supply comes from

¹⁰ Figure adapted from Environment Agency. 2013. Water stressed areas – final classification
https://www.gov.uk/government/uploads/system/uploads/sys

abstraction from the River Stour and River Avon with the rest being made up by ground water. Southern Water supplies water and treats wastewater for parts of Kent, East Sussex, West Sussex, Hampshire and the Isle of Wight, covering a total of 10,530km².

3.18 The Draft Water Resource Management for Bournemouth Water states that in all resource management zones the mostly likely prediction for the next 25 years shows that no shortfall between supply and demand will occur and supply will be able to cope with drought events¹¹. The HRA¹² for the Water Resource Management Plan by Southern Water concluded that there were no effects on the integrity of the European sites within the management plan area. Therefore it is concluded that the area will be able to supply enough water and treat wastewater adequately with the planned growth within that period.

Water Quality

- 3.19 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 runoff, has been identified during an Environment Agency Review of Consents process as being a major factor in causing unfavourable condition of European sites.
- 3.20 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; in the freshwater environment, phosphorus is usually a principal cause of eutrophication.
 - 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 subsequently bird life.
 - Increased discharge of treated sewage effluent can result both in greater scour (as a result of
 greater flow volumes) and in high levels of macroalgal growth, which can smother the mudflats of
 value to SPA birds.
- 3.21 For sewage treatment works close to capacity, further development may increase the risk of effluent escape into aquatic environments. In many urban areas, sewage treatment and surface water drainage systems are combined, and therefore a predicted increase in flood and storm events could increase pollution risk.
- 3.22 This is not an issue that an individual Neighbourhood Plan (or indeed Local Plan) can thoroughly investigate and resolve. It requires liaison between the relevant local authorities (e.g. New Forest District Council) and the relevant water companies. It is understood that the Partnership for Urban South Hampshire (PUSH) has a project underway to examine the constraints posed to growth across South Hampshire by water treatment infrastructure.

Atmospheric Pollution

3.23 The main pollutants of concern for European sites are oxides of nitrogen (NOx), ammonia (NH₃) and sulphur dioxide (SO₂). NOx can have a directly toxic effect upon vegetation. In addition, greater NOx or ammonia concentrations within the atmosphere will lead to greater rates of nitrogen deposition to soils. An

¹¹ A summary of the Draft Water Resource Management Plan by Bournemouth Water 2018
http://www.bournemouthwater.co.uk/Uploads/Docs/economic%20regulationompetition/Water%20rescy20plan/BW%20WRMP%20v7%20050318%20online.pdf
[Accessed 15/11/18]

ompetition/Water%2Uresources%2Uptati/DVV 702UVVINII 702UVV 702UV 702UV

increase in the deposition of nitrogen from the atmosphere to soils is generally regarded to lead to an increase in soil fertility, which can have a serious deleterious effect on the quality of semi-natural, nitrogen-limited terrestrial habitats.

Table 3-1: Main sources and effects of air pollutants on habitats and species

Pollutant	Source	Effects on habitats and species
Acid deposition	SO ₂ , NOx and ammonia all contribute to acid deposition. Although future trends in sulphur emissions and subsequent deposition to terrestrial and aquatic ecosystems will continue to decline, it is likely that increased nitrogen emissions may cancel out any gains produced by reduced sulphur levels.	(acid rain) and dry deposition. Some sites will be more at risk than others depending on soil type, bed rock geology, weathering rate and buffering
Ammonia (NH ₃)	Ammonia is released following decomposition and volatilisation of animal wastes. It is a naturally occurring trace gas, but levels have increased considerably with expansion in numbers of agricultural livestock. Ammonia reacts with acid pollutants such as the products of SO_2 and NO_X emissions to produce fine ammonium (NH_4+)-containing aerosol which may be transferred much longer distances (can therefore be a significant trans-boundary issue.)	deposition leading to eutrophication. As emissions mostly occur at ground level in the rural environment and NH ₃ is rapidly deposited, some of the most acute problems of NH ₃ deposition are for small relict nature reserves located in intensive agricultural
Nitrogen oxides NO _x	Nitrogen oxides are mostly produced in combustion processes. About one quarter of the UK's emissions are from power stations, one-half from motor vehicles, and the rest from other industrial and domestic combustion processes.	nitrogen dioxide (NO_2) and nitric acid (HNO_3)) can lead to both soil and freshwater acidification. In
Nitrogen (N) deposition	The pollutants that contribute to nitrogen deposition derive mainly from NO_X and NH_3 emissions. These pollutants cause acidification (see also acid deposition) as well as eutrophication.	proportions of slow-growing perennial species and
Ozone (O ₃)	A secondary pollutant generated by photochemical reactions from NO_x and volatile organic compounds (VOCs). These are mainly released by the combustion of fossil fuels. The increase in combustion of fossil fuels in the UK has led to a large increase in background ozone concentration, leading to an increased number of days when levels across the region are above 40ppb. Reducing ozone pollution is believed to require action at international level to reduce levels of the precursors that form ozone.	humans and wildlife, and can affect buildings. Increased ozone concentrations may lead to a reduction in growth of agricultural crops, decreased forest production and altered species composition in
Sulphur Dioxide SO ₂	Main sources of SO_2 emissions are electricity generation, industry and domestic fuel combustion. May also arise from shipping and increased atmospheric concentrations in	freshwater, and alters the species composition of

- 3.24 Sulphur dioxide emissions are overwhelmingly influenced by the output of power stations and industrial processes that require the combustion of coal and oil, as well (particularly on a local scale) as shipping.
- 3.25 Ammonia emissions are dominated by agriculture, with some chemical processes also making notable contributions. As such, it is unlikely that material increases in SO₂ or NH₃ emissions will be associated with Neighbourhood Plans. NOx emissions, however, are dominated by the output of vehicle exhausts.

Within a 'typical' housing development, by far the largest contribution to NOx (92%) will be made by the associated road traffic. Other sources, although relevant, are of minor importance (8%) in comparison¹³. Emissions of NOx could therefore be reasonably expected to increase as a result of greater vehicle use as an indirect effect of the Neighbourhood Plan.

- 3.26 According to the World Health Organisation, the critical NOx concentration (critical level) for the protection of vegetation is 30 µgm⁻³. In addition, ecological studies have determined 'critical loads'¹⁴ of atmospheric nitrogen deposition.
- 3.27 The following European designated sites are theoretically vulnerable to atmospheric pollution resulting from the Plan either alone or 'in-combination' with other plans and projects, where they lie within 200m¹⁵ of significant journey to work routes (where changes in traffic movements are most likely to arise due to housing and employment growth):
 - The New Forest SAC, SPA and Ramsar site;
 - Dorset Heaths SAC;
 - Solent Maritime SAC:
 - Solent and Southampton Water SPA and Ramsar site: and,
 - Solent and Isle of Wight Lagoons SAC.

 ¹³ Proportions calculated based upon data presented in Dore CJ et al. 2005. UK Emissions of Air Pollutants 1970
 – 2003. UK National Atmospheric Emissions Inventory. http://www.airquality.co.uk/archive/index.php

¹⁴ The critical load is the rate of deposition beyond which research indicates that adverse effects can reasonably be expected to occur

¹⁵ 200m being the typical maximum distance by which the road influence on local NOx concentrations ceases to be observed above background concentrations

4. Likely Significant Effects Test

- In carrying out HRA it is important to determine the various ways in which a Neighbourhood Plan can impact internationally designated sites by following the pathways along which policy can be connected with these internationally designated sites, in some cases many kilometres distant. Briefly defined, pathways are routes by which a change in activity associated with a policy can lead to an effect upon an internationally designated site. The full Likely Significant Effect test of each policy and allocation in the Local Plan is contained within Appendix B. The results of the Likely Significant Effect test are summarised below.
- 4.2 The level of growth within the area is likely to be very small. The quantity of housing expected to be delivered within Policy NM5 the Town Centre Regeneration Areas (A-F) is at least 250 dwellings. This is within the 490 dwellings allocated for New Milton according to the New Forest District Local Plan Part 1. As such, any potential effect from the Neighbourhood Plan is only likely to cause effects in combination with other plans and projects (such as the additional 10,000 dwellings planned for New Forest District in the Local Plan Part 1), with the exception of potential loss of functionally-linked land. This is because the latter impact is associated with a specific development site footprint, while other impact pathways (recreation, water quality, water resources, air quality) are more associated with the overall amount of planned development in a given area.
- 4.3 When looking at in-combination effects each impact pathway or designated site may have a different zone of influence. For recreation on the Solent designated sites research showed that the zone within which 75% of coastal visitors lived was 5.6km¹⁶. For that at New Forest SAC/SPA it has been identified to be 10km. This is the zone of influence for where the majority of regular users of the European sites come from and therefore the areas which would need to be mitigated. As growth within New Milton fall into this category for the New Forest, growth here should be considered in combination with all other growth within the zone of influence. Therefore the assessment that follows is inherently 'in combination' with other plans and projects.
- The following European designated sites and impact pathways have been identified as being relevant to this assessment in combination with other plans and projects:
- New Forest SPA, SAC and Ramsar site;
 - The New Forest is vulnerable to recreational pressure on its habitats through mechanical/abrasive damage from increased walkers as well as through nutrient enrichment caused by an increase in dog fouling. SPA protected bird species are also vulnerable to increased recreational pressure through an increase in stimulus response events e.g. flushing by dogs. Allowing for more growth and tourism within the area could create higher recreational pressures within the neighbouring New Forest.
 - The New Forest is vulnerable to air quality impacts from changes in traffic flows on roads within 200m of the SAC through increased NOx emissions and nitrogen deposition.
 - The New Forest is also vulnerable to any direct loss of habitat outside the SPA boundary that supports species for which the SPA is designated.
- Solent Maritime SAC;
 - The Solent Maritime SAC is vulnerable to recreational pressure on its habitats through mechanical/abrasive damage from increased walkers as well as through nutrient enrichment caused by an increase in dog fouling.
 - In addition the SAC habitats and species are also vulnerable to water pollution which can occur through increased discharge from water treatment facilities supplying the increased growth. Increased growth within New Milton may cause increased nitrogen and phosphates to be released back into the river systems from waste water treatment works (WWTW) which could cause an impact on the SAC dependent on the locations of the WWTW which supply the area.
 - The Solent Maritime SAC is vulnerable to air quality impacts from changes in traffic flows on roads within 200m of the SAC through increased NOx emissions and nitrogen deposition.

¹⁶ Liley D & Tyldesley D (2013) Solent Disturbance & Mitigation Project Phase III

- Solent and Southampton Water SPA and Ramsar site;
 - The Solent and Southampton Water SPA and Ramsar Site is vulnerable to recreational pressure on its habitats through mechanical/abrasive damage from increased walkers as well as through nutrient enrichment caused by an increase in dog fouling. SPA protected bird species are also vulnerable to increased recreational pressure through an increase in stimulus response events e.g. flushing by dogs.
 - In addition the SAC & Ramsar habitats and species are also vulnerable to water pollution which can occur through increased discharge from water treatment facilities supporting increased growth.
 - The SPA/Ramsar is also vulnerable to loss of functionally linked land, Some species such as dark-bellied Brent goose, for which the SPA and Ramsar are designated for may use land outside of the SPA/Ramsar boundaries for foraging and/or roosting for example during high tides. This means that this land although is not within the SPA/Ramsar boundary it is linked by performing a function for SPA/Ramsar species and therefore loss of this land may cause a likely significant effect.

Dorset Heaths SAC;

• The Dorset Heaths are vulnerable to air quality impacts from changes in traffic flows on roads within 200m of the SAC through increased NOx emissions and nitrogen deposition.

River Avon SAC

- The River Avon and its habitats are vulnerable to water abstraction. The majority of water supplied by Bournemouth Water is sourced from the River Stour and the River Avon. An increase in growth in this area could lead to an increase in abstraction from this river, which can lead to alteration in the natural flow regime of the river and cause impacts such as; loss of habitats and species, exaggerated impacts of barriers to fish, and increases in sedimentation rates to name a few.
- In addition the SAC habitats and species are also vulnerable to water pollution which can occur through increased discharge from water treatment facilities supplying the increased growth. Increased growth within New Milton may cause increased nitrogen and phosphates to be released back into the river systems from waste water treatment works (WWTW) which could cause an impact on the SAC dependent on the locations of the WWTW which supply the area.

Avon Valley SPA and Ramsar

- The Avon Valley and its habitats are vulnerable to water abstraction. The majority of water supplied by Bournemouth Water is sourced from the River Stour and the River Avon. An increase in growth in this area could lead to an increase in abstraction from this river, which can lead to alteration in the natural flow regime of the river and cause impacts such as; loss of habitats and species, exaggerated impacts of barriers to fish, and increases in sedimentation rates to name a few.
- In addition the SAC habitats and species are also vulnerable to water pollution which can occur through increased discharge from water treatment facilities supplying the increased growth. Increased growth within New Milton may cause increased nitrogen and phosphates to be released back into the river systems from waste water treatment works (WWTW) which could cause an impact on the SAC dependent on the locations of the WWTW which supply the area.
- Solent and Isle of Wight Lagoons SAC
 - The SAC is vulnerable to air quality impacts from changes in traffic flows on roads within 200m of the SAC through increased NOx emissions and nitrogen deposition.
- 4.5 The test of likely significant effects is the first stage of the HRA process; this has been carried out for policies and site allocations in matrix form and presented within Appendix B. Where policies have been coloured green in the 'Likely Significant Effects' column, this indicated that the policies do not contain potential impact pathways linking to European designated sites and have been screened out from further consideration alone. Where policies have been coloured orange in the 'Likely Significant Effects' column, this indicates that the policies have potential impact pathways linking to European sites and were not able to be screened out and as such subject to Appropriate Assessment in this report.

Functionally Linked Land

4.6 None of the housing allocations are on parcels of land likely to support nesting territories of breeding birds, or significant congregations of non-breeding birds for which the New Forest SPA and Dorset

Heathlands SPA is designated (specifically, breeding nightjar, woodlark, Dartford warbler and honey buzzard and non-breeding hen harrier). Based on aerial photography the habitat on each site is unsuitable for these species to nest (being farmland or an active sand and gravel extraction pit, as opposed to heathland, acid grassland, managed plantation or undisturbed woodland with clearings). While both nightjar and woodlark will forage widely, including in farmland, this habitat is widespread and abundant in the area around the New Forest (in contrast to suitable nesting habitat) and in most cases the land parcels intended for development are in too close proximity to busy roads, other housing or employment to be widely used. Non-breeding hen harriers roost communally in wetlands; none of the site allocations are in or adjacent to such wetland habitats.

- 4.7 Similarly, none of the allocations are on land identified as being of value for wintering Brent goose and waders associated with the Solent European sites, based on the latest mapping provided on the Solent Waders and Brent Goose Strategy website (https://solentwbgs.wordpress.com/page-2/). According to this website the nearest Brent goose and wader site is NF134D which is east of the Barton-on-Sea golf course, and is a low use plot. No core high tide roosting habitat is found within the New Milton Parish.
- 4.8 Based on available information, the impact pathway 'functionally linked land' can therefore be screened out; no likely significant effects will occur either alone or in combination with other plans or projects.

Recreational Pressure

- 4.9 Policy NM5 Areas A to F within the Town Centre Regeneration area will result in a likely significant effect due to increased recreational pressure on the Solent European sites and the New Forest SAC/SPA in combination with other plans and projects (since the allocation lies within 5.6km of the Solent coastal sites and within 10km of the New Forest).
- 4.10 Policy NM16 (Tourism) could also contribute to recreational pressure; creating more tourist accommodation may allow for more people from outside of the area to stay within New Milton and therefore travel more easily to the New Forest SAC/SPA which borders and is partially within the boundaries of New Milton.
- 4.11 The impact pathway 'recreational pressure' will be assessed further in Section 5. Appropriate Assessment.

Air Quality

- 4.12 Polices NM3, NM5, NM9, and NM16 will also have a likely significant effect 'in combination' with other plans and projects because they will all contribute to increased traffic movements on roads within 200m of the New Forest SAC/SPA (notably the A35, A31 and A337). This is relevant because the SAC is currently exceeding its critical load (reference threshold) for nitrogen deposition according to the Air Pollution Information website (www.apis.ac.uk) and a key source of nitrogen deposition on areas within 200m of key roads will be from traffic NOx emissions. Clearly the New Milton Neighbourhood Plan will make only a minor contribution to any change but it will need to be discussed in more detail 'in combination' in an appropriate assessment. This will normally involve reference to traffic and air quality modelling. The modelling undertaken for the District Local Plan (which has been subject to a separate HRA) is suitable to consider effects for the Neighbourhood Plan as housing (potential for at least 250 dwellings within Policy NM5 Town Centre Regeneration Area) within the Plan does not exceed housing allocated within the District Local Plan for the Parish (490 dwellings).
- 4.13 Using these data, the impact pathway 'air quality' will be assessed further in Section 5. Appropriate Assessment. For completeness this also discusses impacts on the Dorset Heaths SAC, Solent Maritime SAC and Solent & Isle of Wight Lagoons SAC.

Water Quality

4.14 These same four policies (NM3, NM5, NM9, NM16) will also contribute to increased treated wastewater discharge to the Solent European sites. This is relevant because increased nitrogen loading in the Solent results in eutrophication (such as the growth of smothering macroalgae) which, among other effects, results in the intertidal mudflats becoming deoxygenated, reducing invertebrate populations. Again this is clearly an issue to which growth in New Milton will be a minor contributor but the issue must be examined in an appropriate assessment 'in combination' with other plans and projects. It is understood that the

Partnership for Urban South Hampshire are undertaking an Integrated Water Management Strategy which will investigate how to address the issue of increased nitrogen in the Solent from wastewater discharges and how this can accommodate further housing and employment. The appropriate assessment for the New Milton Neighbourhood Plan will need to refer to this work if it is available. New Milton is not within the catchment for the River Avon and therefore the Avon SAC/SPAs will not be affected by waste water from New Milton Parish.

4.15 The impact pathway 'water quality' can be screened out for the Avon SAC/SPAs, however will be assessed further in Section 5. Appropriate Assessment in relation to the Solent SAC/SPAs.

5. Appropriate Assessment

Recreational Pressure

New Forest SAC, SPA & Ramsar site

- 5.1 The New Forest SAC, SPA and Ramsar site is partially located within the Parish of New Milton and is situated 1.5km from the closest allocation. In addition policies that have the potential to increase the numbers of recreational visitors to this internationally designated site (such as those that encourage residential development and tourism) have the potential to cause adverse effects on the integrity of the site. These policies are:
 - NM5 New Milton Town Centre Regeneration Area
 - NM16: Tourism
- 5.2 The New Forest SPA & Ramsar site is sensitive to the effects of recreational disturbance. It is considered that the threat of development pressure particularly housing on the neighbouring land and allocations sites within 10km of the European sites, could result in increased recreational use of this site and has the potential to increase disturbance to bird feeding and bird behaviour.
- 5.3 Table 5-1 below provides the allocation sites and number of dwellings per site within 10km of the New Forest SPA & Ramsar.

Table 5-1 Housing numbers within 10km of The New Forest SAC, SPA & Ramsar

Allocation Site Reference	Address	Indicative Distance Dwelling from Numbers SAC/SPA
NM5	New Milton Town Centre Regeneration Area (A-F)	potential 2.9km for at least 250 dwellings

- 5.4 Different types of European sites (e.g. heathland, chalk grassland) are subject to different types of recreational pressure and have different vulnerabilities. Studies across a range of species have shown that the effects from recreation can be complex.
- 5.5 The effects of recreation on heathland sites were described in a series of English Nature Research Reports. 17 Recreational pressure can have a significant adverse effect on the Annex 1 bird species for which the SPAs in this area are designated. Disturbance can have an adverse effect in various ways, with increased nest predation by natural predators as a result of adults being flushed from the nest and deterred from returning to it by the presence of people and dogs likely to be a particular problem. A literature review on the effects of human disturbance on bird breeding found that 36 out of 40 studies reported reduced breeding success as a consequence of disturbance 18. The main reasons given for the reduction in breeding success were nest abandonment and increased predation of eggs or young. Over

¹⁷ Liley, D. and R.T. Clarke (2002) – Urban development adjacent to heathland sites in Dorset: the effect on the density and settlement patterns of Annex 1 bird species. *English Nature Research Reports*, No. 463.

Murison, G. (2002) – The impact of human disturbance on the breeding success of nightjar *Caprimulgus europaeus* on heathlands in south Dorset, England. *English Nature Research Reports*, No. 483.

Land Use Consultants (2005) – Going, going, gone? The cumulative impact of land development on biodiversity in England. English Nature Research Reports, No. 626.

Rose, R.J. and R.T. Clarke (2005) – Urban impacts on Dorset Heathlands: Analysis of the heathland visitor questionnaire survey and heathland fires incidence data sets. *English Nature Research Reports*, No. 624.

Tyldesley, D. and associates (2005) – Urban impacts on Dorset heaths: A review of authoritative planning and related decisions. *English Nature Research Reports*, No. 622.

Underhill-Day, J.C. (2005) – A literature review of urban effects on lowland heaths and their wildlife. English Nature Research Reports. No. 623.

¹⁸ Hockin, D., M. Oundsted, M. Gorman, D. Hill, V. Keller and M.A. Barker (1992) – Examination of the effects of disturbance on birds with reference to its importance in ecological assessments. *Journal of Environmental Management*, **36**, 253-286.

years, studies of other species have shown that birds nest at lower densities in disturbed areas, particularly when there is weekday as well as weekend pressure¹⁹.

- 5.6 A number of studies have shown that birds are affected more by dogs and people with dogs than by people alone, with birds flushing more readily, more frequently, at greater distances and for longer (Underhill-Day, 2005). In addition, dogs, rather than people, tend to be the cause of many management difficulties, notably by worrying grazing animals, and can cause eutrophication near paths. Nutrient-poor habitats such as heathland are particularly sensitive to the fertilising effect of inputs of phosphates, nitrogen and potassium from dog faeces²⁰.
- 5.7 Underhill-Day (2005) summarises the results of visitor studies that have collected data on the use of seminatural habitat by dogs. In surveys where 100 observations or more were reported, the mean percentage of visitors who were accompanied by dogs was 54.0%.
- 5.8 However these studies need to be treated with care. For instance, the effect of disturbance is not necessarily correlated with the impact of disturbance, i.e. the most easily disturbed species are not necessarily those that will suffer the greatest impacts. It has been shown that, in some cases, the most easily disturbed birds simply move to other feeding sites, whilst others may remain (possibly due to an absence of alternative sites) and thus suffer greater impacts on their population²¹. A recent literature review undertaken for the RSPB²² also urges caution when extrapolating the results of one disturbance study because responses differ between species and the response of one species may differ according to local environmental conditions. These facts have to be taken into account when attempting to predict the impacts of future recreational pressure on European sites.
- 5.9 A study on recreational disturbance effects of breeding golden plover in upland moorland (Finney, Pearce-Higgins and Yalden, 2005²³) along the Pennine Way recorded that recreational pressure along the Pennine Way when 30% of walkers strayed from the paths would mean that golden plover avoided areas within 200m of the pathway, once the percentage of walkers straying off the path was reduced to 4% through the resurfacing of the Pennine way golden plover were recorded nesting in areas greater than 50m from the pathway. However, Yalden & Yalden (1990)²⁴ found that there was a greater disturbance effect when people had dogs, incubating birds would flush at greater distance when a dog was present (>10m). This research shows that golden plover are relatively insensitive to walker disturbance when movements are predictable, but are more sensitive to the less predictable nature of dogs, which are more likely to stray from designated pathways.
- 5.10 It should be emphasised that recreational use is not inevitably a problem. Many European sites are also National Nature Reserves or nature reserves managed by wildlife trusts and the RSPB. At these sites, access is encouraged and resources are available to ensure that recreational use is managed appropriately.
- 5.11 The HRA of the Core Strategy for the New Forest District included an Appropriate Assessment in respect of recreational effects on the New Forest SAC, SPA & Ramsar site like to arise from additional housing planned within the Plan area. It was recognised within this Appropriate Assessment that to avoid potential harm to the New Forest SAC/SPA appropriate mitigation measures would need to be implemented.
- 5.12 The New Forest District Council Mitigation Strategy (June 2014) was therefore created to address this issue²⁵. The mitigation strategy is outlined below:
 - Provision of SANG: 'Delivery of 30 40 ha of informal open space which is not currently available for this use. Developers will be required to fund this through a mixture of direct

¹⁹ Van der Zande, A.N., J.C. Berkhuizen, H.C. van Letesteijn, W.J. ter Keurs and A.J. Poppelaars (1984) – Impact of outdoor recreation on the density of a number of breeding bird species in woods adjacent to urban residential areas. *Biological Conservation*, **30**, 1-39.

²⁰ Shaw, P.J.A., K. Lankey and S.A. Hollingham (1995) – Impacts of trampling and dog fouling on vegetation and soil conditions on Headley Heath. *The London Naturalist*, **74**, 77-82.

²¹ Gill et al. (2001) - Why behavioural responses may not reflect the population consequences of human disturbance. *Biological Conservation*, **97**, 265-268

²² Woodfield & Langston (2004) - Literature review on the impact on bird population of disturbance due to human access on foot. *RSPB research report* No. 9.

²³ Finney, SK, Pearce-Higgins, JW & Yalden, DW 2005, 'The effect of recreational disturbance on an upland breeding bird, the golden plover Pluvialis apricaria' *Biological Conservation*, vol 121, no. 1, pp. 53-63. DOI: 10.1016/j.biocon.2004.04.009

²⁴ Yalden, D.W., & Yalden, P.E. 1990. Recreational disturbance of breeding Golden Plovers *Pluvialis apricarius*. *Biological Conservation* 51: 243-262

²⁵ http://www.newforest.gov.uk/CHttpHandler.ashx?id=25958&p=0 [Accessed 16/11/18]

provision as part of a development or contributions to the provision of off-site open space (SANGS) proposals.'

- Enhancement of existing greenspace and footpaths/rights of way: 'A programme of enhancement of footpaths/rights of way and existing open spaces in all settlements in which the Local Plan provides for residential development. This will seek to link up and improve the accessibility and attractiveness of rights of way and open spaces outside European sites to residents of the District who might otherwise visit the New Forest/Solent Coast European sites. Attractiveness to dog walkers, for example, might be enhanced by provision of a small car park and provision of routes/open spaces that are specifically designed as dog exercise areas and fenced off from busy roads.'
- Access management: 'NFDC will agree contributions towards the funding of appropriate access management measures, including provision of additional rangers, for the New Forest European sites with the New Forest National Park Authority (and Natural England, if appropriate) this will draw on evidence provided in LUC's Evidence Review and HRA Addendum and be designed in partnership with the NFNPA. The potential will be explored to tie in with the Local Sustainable Transport Fund work, which is identifying a core network of community routes. Access management within the National Park is under the control of the Forestry Commission and other landowners and will therefore be planned and implemented via joint working.'
- Monitoring: 'Contributions will be gathered to support monitoring of the condition of European designated habitats and species, progress in implementing the mitigation strategy, and visitor patterns at new and enhanced open spaces and within the New Forest.'
- 5.13 Provision of SANG is secured through Policy CS7 of the Core Strategy²⁶ which requires all new residential development to make provision at a standard of 3.5ha per 1000 population. Policy DM3 of the Local Plan Part 2²⁷ goes further to say 'On sites of 50 or more dwellings the full mitigation requirements should be met by provision of SANGS on-site or close to the site, based on a standard of 8ha of SANGS per 1,000 population. The details of the SANGS will need to be agreed with Natural England as part of the planning application process. This provision should be available for new occupants of the development at the time of first occupation.' Policy DM3 also requires all residential development to contribute to monitoring of the impacts of new development on the European site.
- 5.14 The Policy NM5 has the potential to deliver at least 250 dwellings over Sites A to F, within the Town Centre Regeneration Area shown on Figure 2. The sites within this area would be required to provide SANG in one of two ways dependent on the number of dwellings developed at each site. For sites with fewer than 50 dwellings the developer would be required to provide financial contributions to strategic SANG provision within the parish at an equivalent SANG provision of 3.5 ha per 1000 population. Should a site develop 50 or more dwellings; to ensure compliance with Policy 10 of the NFDC LPP1 the developer would be required to provide SANG at a rate of 8ha per 1000 population within or close to the development. Therefore, considering the lowest estimate of 250 dwellings a SANG requirement of at least 2.1 ha would be required (should all sites develop 49 or fewer dwellings each) and should all sites develop dwellings at a rate of 50 or above the SANG requirement would increase to 4.8 ha. Should the sites develop over 250, and at a total capacity of 300 dwellings within the regeneration area, SANG requirements are likely to be between 2.52 ha (should all sites develop 49 or fewer dwellings each) and 5.76 ha (should all sites develop 50 or more dwellings each).
- 5.15 In addition to the houses allocated within the above Policies. New Milton Council have shown support for the development or redevelopment of tourist accommodation (Policy NM16). Should tourist residential development be bought forward within the Parish, throughout the Plan period, the developments will also have to provide mitigation to the New Forest SAC/SPA/Ramsar (and Solent sites if within 5.6km).
- 5.16 As a minimum any housing allocation providing 49 or fewer dwelling will be required by the New Forest District Local Plan to provide financial contributions towards the provision of recreational mitigation measures as set out in the Mitigation for Recreational Impacts SPD. Should the Parish provide any SANG the minimum requirement for the provision of SANG is 3.5 ha per 1000 population which comprises 0.2 ha per 1000 population of designated play space for children and young people, 1.25 ha of formal recreational space per 1000 population and 2 ha of informal open space per 1000 population. Should number of dwellings per site be 50 dwellings or over the minimum provision becomes a direct provision by

²⁶ http://www.newforest.gov.uk/CHttpHandler.ashx?id=36579&p=0 [Accessed 16/11/18]

http://www.newforest.gov.uk/CHttpHandler.ashx?id=29256&p=0 [Accessed 16/11/18]

the developer of at least 8ha of SANG per 1000 population located on the development site or directly adjoining it and a financial contribution towards Access and Visitor Management and Monitoring. It is recommended that the provision of effective, well designed SANG should be secured through planning condition to ensure arrangements are in place for ongoing management and maintenance.

- Policy NM5 does not include reference to mitigation for New Forest SAC, SPA and Ramsar site. However, New Milton Parish Council have included a specific Policy, Policy NM11: Mitigating Effects on European Sites, which states: "Residential schemes will be required to include proposals for mitigating their effects on the European sites. This could be through on-site provision or off-site financial contributions in accordance with the requirements of the development plan, including compliance with the Mitigation Strategy for European Sites (Recreational Pressure from Residential Development) SPD as it applies to New Forest SPA, SAC and Ramsar site. Solent Maritime SAC, Solent and Southampton Water SPA and Ramsar site, and where necessary financial contributions for ongoing monitoring for the New Forest SAC." This policy will ensure that any residential development bought forward to planning will be fully considered for its suitability and will only be supported provided it can be demonstrated that there will be no adverse impacts upon European sites.
- 5.18 The Parish Council have put forward plans to include a 3.44 ha SANG north of Fernhill Sports Ground to mitigate for any housing to be put forward in Policy NM5. The current use of the site is pasture and a small section of woodland. The council are intending to put in a fenced area for dog training, however should the site be taken forward as SANG it is recommended that further work would need to be done to improve the habitats present within the site to promote the site as an alternative to sites within the New Forest SAC/SPA. In accordance with the minimum standard for SANG provision (3.5 ha per 1000 population), the area provided by the SANG would be sufficient for approximately 400 dwellings at an average occupancy rate of 2.4, should all sites allocations be kept below 50 dwellings. Should there not be enough available space within New Milton for the appropriate level of SANG, developer contributions to the provision of strategic SANG in the wider New Forest District will be required.
- Within the Tourism policy the text states that development will only be supported "provided it can be demonstrated there will be no adverse effect on European sites' and therefore provides assurances against developmental impact upon European sites.
- Given the requirements for the provision of an appropriate amount of SANG and the presentation of proposals for those SANG, coupled with policy commitment to strategic access management of the New Forest National Park and developer contributions to monitoring it is considered that the Neighbourhood Plan has an adequate policy framework to ensure that planned development will not affect the integrity of the Europeans sites either alone or in combination.

Solent Sites

- The Solent Maritime SAC and the Solent & Southampton Water SPA and Ramsar site are located outside the Parish of New Milton and are situated 5.5 km from the closest allocation. In addition policies that have the potential to increase the numbers of recreational visitors to this internationally designated site (such as those that encourage residential development and tourism) have the potential to cause adverse effects on the integrity of the site. These policies are:
 - NM5: New Milton Town Centre Regeneration Area;
 - ; and,
 - NM16: Tourism.
- The Solent Sites are considered sensitive to the effects of recreational disturbance. It is considered that the threat of development pressure particularly housing on the neighbouring land and allocations sites within 5.6km of the European sites, could result in increased recreational use of this site and has the potential to increase disturbance to bird feeding and bird behaviour.
- 5.23 Table 5-1 below provides the allocation sites and number of dwellings per site within 5.6km of the Solent

Table 5-2 Housing numbers within 5.6km of Solent Sites

Allocation Address Indicative Distance from SAC/SPA

Site Dwelling Reference Numbers

NM5 New Milton potential 5.4 km

Town Centre at least Regeneration 250 Area dwellings

- 5.24 Area D and E within Policy NM5 are situated approximately 5.5km from the boundaries of the Solent sites at their closest point and are therefore within the core recreational pressure zone of influence. All other potential development sites within the Town Centre Regeneration Area are outside of the core recreation pressure zone of influence. The Neighbourhood plan does not allocate a specific quantum of housing merely states potential capacity at each site. The Town Centre Regeneration Area has a capacity of potentially delivering at least 250 dwellings.
- 5.25 Impacts associated with disturbance from recreation can differ between coastal and inland sites. The Solent and particularly its mudflats, shingle and saltmarshes provide essential feeding and roosting grounds for birds wintering on the south coast.
- 5.26 Disturbance can have several impacts upon the birds, the disturbance may cause the bird to be flushed from foraging or a roost or the birds may just be more alert, resulting in a reduction of the amount of time that is spent foraging for food. If a bird is flushed this will also result in a reduction of the amount of time spent foraging, but also will be using more energy by flying away. The ultimate consequence of disturbance to wintering birds is a reduction in the amount of energy the bird will have available to fly back to summer breeding habitats or mortality. If the bird did not have enough energy to complete the return flight then this would result in a decrease in the population.
- 5.27 The limited data within literature²⁸ does indicate that in some circumstances certain waterfowl (such as Shoveler) can be disturbed by human activity up to 400m away. However, the activity in question was sailing. Due to the erratic movement of the craft and the high visibility of their sails, in addition to the lack of physical barriers between the sailing boats and the waterfowl, this is likely to be one of the more disturbing stimuli in existence. This explains the considerable distance at which disturbance can be caused. By comparison, more recent research into "flushing" distances undertaken by Footprint Ecology²⁹ on the Solent designated coast (during 2010) recorded that many species flushed from human activity (primarily walkers) only at distances of 69m or less.
- 5.28 Further, more extensive research was undertaken during 2009-2013 to assess the impact of recreational activity on wintering birds on the Solent coast. The most popular activities on the Solent coast are walking, jogging and cycling which makes up for 91% of all recreational activity³⁰. This research also reported that 47% of all 'major flight' events were caused by dogs off leads. An increase in housing within the core recreation zone could have significant impacts on the integrity of the European sites.
- 5.29 Although the number of new housing with in the 5.6km core recreational zone for the Solent sites allocated within New Milton is small and would therefore be unlikely to cause an effect alone, the contribution of this development in combination with other Local Plans within the core recreational zone will cause an adverse effect on the Solent Sites unless mitigation measures are implemented.
- 5.30 The Partnership for Urban South Hampshire (PUSH) and other stakeholders formed the Solent Recreation Mitigation Partnership (SRMP) to create the Solent Recreation Mitigation Strategy³¹.
- 5.31 As part of the Solent Recreation Mitigation Strategy all developments within 5.6km of the Solent sites require developer funding contributions in perpetuity (80 years) to assist with the funding for rangers, communications, marketing and education initiatives, initiatives to encourage responsible dog walking and site-specific visitor management and bird refuge projects delivered by BirdAware Solent. A sliding scale depending on number of bedrooms per dwelling is used from £337 for a one bed dwelling to £880 for a

²⁸ Tydeman, C.F. 1978. Gravel Pits as conservation areas for breeding bird communities. PhD thesis. Bedford College.

²⁹ Liley, D., Stillman, R. & Fearnley, H. (2010). The Solent Disturbance and Mitigation Project Phase 2: Results of Bird Disturbance Fieldwork 2009/10. Footprint Ecology / Solent Forum.

³⁰ Liley D, Stillman R & Fearnley H (2011) Solent Disturbance & Mitigation Project Phase II Results of bird disturbance fieldwork 2009/10. Paragraph 3.7

³¹ https://www.portsmouth.gov.uk/ext/documents-external/pln-solent-recreation-mitigation-strategy-dec-17.pdf [Accessed 16/11/18]

five or more bed dwelling. And the total figure is based on an estimate of the mix of housing that is proposed. The rates are to be reviewed every two years throughout the duration of the strategy. As was discussed for the New Forest European Sites, New Milton Parish Council have included a Policy, Policy NM11 which requires developers to comply with the Mitigation for European Sites SPD which applies to the Solent European sites as well as the New Forest European sites.

- In addition to the quantum of housing potentially deliverable within New Milton Neighbourhood Plan (300 dwellings), the Policy NM16 promotes the development of more tourist accommodation within Barton-on-Sea, which is partially within the 5.6km core recreational zone. The Solent Recreation Mitigation Strategy states that 'New hotels and other holiday/tourist accommodation - defined as both wholly new establishments and extensions of existing ones - is a residential-related use with the potential to generate additional recreational visits to the SPA(s). The need for mitigation for new hotel accommodation will be assessed on a case-by-case basis by the local planning authority in relation to the 'tests' set out [in the Solent Recreation Mitigation Strategy]. Mitigation is unlikely to be required for new hotel accommodation in a city centre for example, if the guests will predominantly be business people or those visiting the built heritage rather than the coast. On the other hand, mitigation is more likely to be required for new hotel accommodation close to a SPA where guests will probably spend some time walking or pursuing other recreational activities at the coast.' The clause entered into the Tourism Policy regarding no adverse effect to European sites, will ensure that all tourist accommodation bought forward to planning will be fully considered for its suitability and will only be supported provided it can be demonstrated that there will be no adverse impacts upon European sites.
- 5.33 With the provision of Policy NM11: Mitigating Effects on European Sites and the clause within the Policy NM16 Tourism, it is considered that the Neighbourhood Plan has an adequate policy framework to ensure that planned development will not affect the integrity of the Europeans sites either alone or in combination.

Air Pollution

New Forest SAC, SPA & Ramsar

- The HRA32 for the NFDC LPP1 took into consideration air quality at a district level both alone and in combination with other plans and projects and covers the level of housing allocated within the New Milton Neighbourhood Plan. It was noted that there was the potential for traffic growth and associated increases in air pollution from the NFDC LPP1, which would result in a likely significant effect on the New Forest SAC/SPA.
- 5.35 New Forest District Council and the New Forest National Park Authority jointly commissioned a study³³³⁴ based on this information to analyse future scenarios more fully.
- The HRA notes: 'The air quality assessment concluded that it is not possible to discount the potential for significant effects in relation to annual mean NOX concentrations, 24-hour NOX concentrations, nutrient nitrogen deposition, and increased ammonia concentrations without further analysis of the sensitivity of designated habitats to these impacts at identified locations. These conclusions were drawn for both the 'Do-Something' scenario of traffic growth from the NFDC and NFNPA Local Plans alone and for an 'In combination' scenario that also considered other changes expected to occur up to 2036'
- 5.37 In regards to sensitivities within the New Forest SAC/SPA it concluded that 'the implementation of the NFDC Local Plan part one ... is not likely to have an adverse effect on the integrity of New Forest SAC. SPA and Ramsar Site. In combination effects will result in exceedances for ammonia and acid deposition, although exceedance of critical loads/ levels is also predicted in the absence of Local Plans'. It is understood that there are limited data on site specific sensitivities currently, and so, in light of this finding the HRA recommended undertaking periodic vegetation monitoring to identify changes for the life of the Plan.
- Within the NFDC LPP1 supporting information for Policy 10: Mitigating Impacts of Development on International Nature Conservation Sites it states:

³² http://www.newforest.gov.uk/CHttpHandler.ashx?id=36445&p=0 {Accessed 21/11/18]

³³ Air Quality Consultants (2018) Air Quality Input for Habitats Regulations Assessment. New Forest – Final Report 29 March

³⁴ BSG Ecology (2018) Ecological Consultancy Advice on Air Quality Risks – Final Report 19 May 2018

- 'There are uncertainties in the data, but the precautionary principle applies requiring a modest financial contribution from development to ongoing monitoring of the effects of traffic emissions on sensitive locations, to trigger management or mitigation measures and developer contributions to implement them if harmful effects are confirmed in the future.'
- As the NFDC LPP1 was able to be screened out for air quality effects it is also possible to screen out the New Milton Neighbourhood plan from effects due to this Plan being a contributor to the quantum of growth modelled for the whole District Local Plan. Policy NM11 ensures compliance with Policy 10 of the NFDC LPP1 with regards to air quality where it states that residential schemes will "where necessary [provide] financial contributions for ongoing monitoring of the New Forest SAC".
- With this Policy in place it can be concluded that the New Milton Neighbourhood Plan will not affect the integrity of the New Forest European sites in relation to air pollution impact pathways.

Solent Sites

- 5.41 The most relevant area for air pollution from New Milton commuters for the Solent Maritime SAC is the A35 Totton bypass (SU36911361). This road goes directly over the Solent Maritime SAC. Here the habitats as seen from MAGIC³⁵ are saltmarsh and mudflat. Saltmarsh has a critical load of 20kg N/ha/yr. The current maximum nitrogen deposition load is 17.22kg N/ha/yr, with an average across the SAC of 11.03kg N/ha/yr. This is below the critical load. New Milton is at its closest boundary over 18km in a straight line and further by vehicle, this is a significant distance. The further you go from the New Milton boundary the number of road options for travelling increases and spreads the commuters across a wide area. Therefore, only a very small fraction of the commuters from New Milton are likely to use the A35 Totton bypass on their daily commute.
- 5.42 It is also important to note that the experimental studies that underlie conclusions regarding the sensitivity of saltmarsh to nitrogen deposition, and the selection of 20 kgN/ha/yr as the minimum critical load have "... neither used very realistic N [nitrogen] doses nor input methods i.e. they have relied on a single large application more representative of agricultural discharge 36, which is far in excess of anything that would be deposited from atmosphere. For coastal saltmarshes such as those for which Solent Maritime SAC is partly designated nitrogen inputs from air are not as important as nitrogen effects from other sources because the effect of any deposition of nitrogen from atmosphere is likely to be dominated by much greater flushes of more readily utilized nitrogen from marine, fluvial or agricultural sources. This is reflected on APIS itself, which states regarding saltmarsh that 'Overall, N deposition [from atmosphere] is likely to be of low importance for these systems as the inputs are probably significantly below the large nutrient loadings from river and tidal inputs'37. Moreover, the nature of intertidal saltmarsh in this area means that there is flushing by tidal incursion twice per day. This is likely to further reduce the role of nitrogen from atmosphere in controlling botanical composition.
- 5.43 Furthermore, as described above for the New Forest European sites the NFDC LPP1 HRA was able to conclude at the District level, the growth over the Local Plan period within the District would not cause an effect alone. Therefore taking into consideration that New Milton falls within the overall quantum of growth modelled for LPP1, as well as the distance between New Milton and the SAC/SPA/Ramsar and the fact that saltmarsh nitrogen is more heavily controlled by the tides than by vehicle emissions it is concluded that the New Milton Neighbourhood Plan will not cause an adverse effect on the integrity of the SAC/SPA/Ramar.
- In terms of the Solent & Isle of Wight Lagoons no major roads (A roads or motorways) run within 200m of the area closest to New Milton which is 6.1 km to the east of New Milton (SZ33299406) (in a straight line). The only road close to the SAC is Nor Mandy Lane which is a circular road facilitating access to several homes and a farm. Therefore it is unlikely that growth within New Milton would increase the number of journeys passed this section of the SAC. It can therefore be concluded that the New Milton Neighbourhood Plan will not cause an adverse effect on the integrity of the SAC.

³⁵ https://magic.defra.gov.uk/MagicMap.aspx [Accessed 21/11/2018]

³⁶ UK Air Pollution Information System website [Accessed 21/11/18]: http://www.apis.ac.uk/node/968

³⁷ APIS website [Accessed 21/11/18]: http://www.apis.ac.uk/node/968

Dorset Heaths SAC & Dorset Heathland SPA & Ramsar

- 5.45 Dorset Heaths SAC is not present within the Parish of New Milton, the closest areas to New Milton are approximately 4km south west at Hengistbury Head and 7km north west north of Fairmile. The area of SAC south east of New Milton is remote from traffic due to the nature of the land formation of Christchurch Harbour. Hengistbury Head is a spit of land with vehicular access passed the SAC (likely to be only residential access) just servicing a few properties and beach huts on Mudford Sandbank. Therefore the level of vehicular traffic passed the SAC would be insignificant and would not be increased by daily commuter travel. Tourist visitor parking for Hengistbury Head is also located approximately 400m west of the SAC and therefore would not be increased by an increase in tourist vehicles. The A338 goes up through the centre of the Dorset Heaths SAC, but it is unlikely that commuters from New Milton will go west before travelling north; they are more likely to use the A35 and A337 for northward travel, this is also true for tourists travelling east-west or north-south into New Milton.
- 5.46 In addition to the distance from New Milton Parish and the fact that the SAC is unlikely to be on a major commuting route to Bournemouth and Poole, the NFDC LPP1 HRA concluded that the New Forest District Local Plan would not affect the integrity of European sites. As New Milton falls within the overall quantum of growth modelled for LPP1, it can also be concluded that the New Milton Neighbourhood Plan will not affect the integrity of the Dorset Heaths European Sites.

Water Quality

Solent Sites

- 5.47 New Milton is part of the New Forest Groundwater Operational Catchment which is made up of the Hants South West Solent and the Hants South West Barton catchment groups. These rivers all discharge into the Solent and the area is serviced by Southern Water for waste water treatment.
- 5.48 It is known that the Solent is vulnerable to nitrogen inputs which cause opportunistic green seaweed mats in many parts of the Solent, which can cause the smothering of estuarine habitats and restrict available food for wetland birds.
- 5.49 The vast majority of this nitrogen comes from agriculture, however treated waste water effluent is also a substantial contributor of nitrogen and the need to service net new housing and employment throughout the South Hampshire area will place greater pressure on wastewater treatment works to treat effluent to a higher standard to minimise the net increase in nitrogen loading into the Solent. Even then, some increase in loading from treated sewage effluent may be unavoidable in which case it is necessary to ensure that no net increase occurs by (for example) reducing agricultural inputs.
- 5.50 Although the growth in the New Milton Neighbourhood Plan will make a small contribution to overall discharges, in combination with the rest of the New Forest District and catchments that flow into the Solent there could be an adverse effect on integrity. As the effect is associated with the discharge from wastewater treatment works it is a strategic issue rather than something that the New Milton Neighbourhood Plan can mitigate on its own; addressing this effect requires a strategically coordinated effort through stakeholder engagement with Councils and Water Treatment companies, the Environment Agency and Natural England.
- 5.51 The partnership PUSH (Partnership for Urban South Hampshire) was set up in 2003 to ensure that housing could be delivered sustainable in south Hampshire while safeguarding the environment. The South Hampshire Strategy³⁸ Policy 13: Infrastructure, identifies the need for Local Plans to assess the requirement for new and improved infrastructure as an integral part of their production. This includes new and upgraded wastewater treatment facilities. The New Forest District LPP1 further states that: 'The Council will proportionately support the Environment Agency, Southern Water and Natural England, water companies and surrounding authorities in the development of any strategic solution to reducing nutrient inputs to the Solent designated sites from wastewater discharges. Where necessary based on evidence of harmful impacts or by application of the precautionary principle, additional mitigation measures may be applied to developments that directly or indirectly discharge waste water into the Solent'.

³⁸ https://www.push.gov.uk/wp-content/uploads/2018/05/South-Hampshire-Strategy-with-amended-LA-web-addresses.docx [Accessed 22/11/18]

New Milton Neighbourhood Plan also includes a policy which supports the PUSH Policy 13 regarding wastewater treatment. Policy NM13: Mitigating Effects on European Sites states: "all development proposals should have regard to:

- i. Water quality and the mitigation of nutrient enrichment so as not to undermine Policy 13 of the South Hampshire Strategy October 2012: and,
- ii. Treatment and infrastructure capacity to avoid water quality impacts on the integrity of European site within the Solent".
- 5.52 As this policy is included it is concluded that the Plan would not cause an effect on the integrity of the Solent European designated sites.

6. Conclusion

- 6.1 This assessment undertook both screening and Appropriate Assessment of the policies and site allocations within the New Milton Neighbourhood Plan.
- 6.2 The European designated sites, considered within the Appropriate Assessment for impact pathways that could not be screened out at the screening stage were:
 - New Forest SAC, SPA and Ramsar
 - Solent Maritime SAC
 - Solent and Southampton Water SPA and Ramsar
 - Solent and Isle of Wight Lagoons SAC
 - Dorset Heaths SAC
 - Dorset Heathlands SPA and Ramsar
- 6.3 Impact pathways considered were: recreational pressure, air pollution and water quality.
- 6.4 The conclusions and recommendations of the appropriate assessment are discussed below:
- 6.5 It has been concluded that the New Milton Neighbourhood Plan will not affect the integrity of European sites in relation to recreational pressure due to provisions in the Neighbourhood Plan itself e.g. Policy NM11: Mitigating Effects on European Sites, and over-arching provisions in the New Forest District Local Plan Part 1 and Mitigation Strategy for European Sites, with which all net new housing in the Neighbourhood Plan will need to comply. These strategies have been put into Local Plan policy including Policy CS7 of the LPP1 and DM3 of the LPP2 of the New Forest District Local Plan.
- 6.6 It has been concluded that the New Milton Neighbourhood Plan does not affect the integrity of European sites in relation to air quality. This conclusion was reached through the evidence which includes: Although the NFDC LPP1 HRA found that the traffic modelling data provided uncertainties with regards to the New Forest SAC especially in areas that were not shielded by woodland. The NFDC LPP1 includes a section within Policy 10 to ensure that precautionary principles are adhered. This involves a small developer contribution to the periodic monitoring of vegetation within the New Forest SAC. The contributions will also go towards mitigation if the monitoring highlights an effect in the future. Policy NM11 ensures compliance with Policy 10 of the NFDC LPP1 with regards to air quality where it states that residential schemes will "where necessary [provide] financial contributions for ongoing monitoring of the New Forest SAC".
- 6.7 For the Solent sites it was concluded that the distance between the European sites and New Milton would create a dispersal effect in terms of options for travel increasing with greater distance. This would mean that the number of journeys being made passed the European sites due to the growth in New Milton would likely be limited and therefore a contribution that would be insignificant. This coupled with the fact that the areas around the nearest section of SAC to be affected are likely to be controlled more heavily in terms of nitrogen concentrations by the washing of the tide, rather than by vehicular movements.
- 6.8 For the Dorset sites, the area closest to New Milton is located on Hengistbury Head, this is a remote location with limited vehicular access (visitor car park is located 400m west of the SAC). The area of SAC which is north of Fairmile is approximately 7km west of the New Milton Parish boundary, at this distance the traffic dispersal will increase as well as the SAC being remote from any large east-west commuting routes.
- 6.9 It has been concluded that the New Milton Neighbourhood Plan does not affect the integrity of European sites within the Solent in relation to water quality. This conclusion was reached through the evidence which includes: water quality is not an issue that New Milton can address alone, it is a much wider issue that must be addressed strategically by water companies, local councils and stakeholders such as the Environment Agency and Natural England. The Partnership for Urban South Hampshire have introduced a strategy for the south of Hampshire, to ensure that facilities for water treatment are upgraded when necessary to ensure sustainable growth without detriment to the environment. The New Forest District Council LPP1 states that the council will proportionally support the agencies in the development of

strategic solutions to reducing nutrient input into the Solent. New Milton also include a clause within Policy NM11 which supports the PUSH Policy 13 regarding wastewater treatment as well as including provision to ensure that development within the Parish over the Plan period will keep pace with treatment capacity and infrastructure so as not affect the integrity of the Solent sites.

6.10 Provided the above recommendations are included within the Neighbourhood Plan it can be concluded that the Plan document will not result in an adverse effect on the integrity of any European sites either alone or in combination.

Appendix A European Sites Background

The New Forest SAC, SPA & Ramsar

Introduction

The New Forest is located in southern Hampshire, west of the Solent in southern England. It comprises a complex mosaic of habitats overlying mainly nutrient-poor soils over plateau gravels. The major components are the extensive wet and dry heaths with their rich valley mires and associated wet and dry grasslands, the ancient pasture woodlands and inclosure woodlands, the network of clean rivers and streams, and frequent permanent and temporary ponds.

Conservation Objectives³⁹⁴⁰

With regard to the SAC and the individual species and/or assemblage of species for which the site has been classified (the 'Qualifying Features' listed below), and subject to natural change;

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

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

With regard to the SPA and the individual species and/or assemblage of species for which the site has been classified (the 'Qualifying Features' listed below), and subject to natural change;

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

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

Qualifying Features⁴¹⁴²

The following features are reasons for designation as an SAC:

Annex I habitats that are primary reason for selection of this site:

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

³⁹ http://publications.naturalengland.org.uk/publication/5727577884852224 [Accessed 10/09/2018]

⁴⁰ http://publications.naturalengland.org.uk/publication/5816333400801280 [Accessed 10/09/2018]

⁴¹ http://jncc.defra.gov.uk/protectedsites/sacselection/sac.asp?EUCode=UK0012557 [Accessed 10/09/2018

⁴² http://jncc.defra.gov.uk/page-2035-theme=default [Accessed 10/09/2018]

- Oligotrophic to mesotrophic standing waters with vegetation of the Littorelletea uniflorae and/or of the Isoëto-Nanojuncetea
- Northern Atlantic wet heaths with Erica tetralix
- European dry heaths
- Molinia meadows on calcareous, peaty or clayey-silt-laden soils (Molinion caeruleae)
- Depressions on peat substrates of the Rhynchosporion
- Atlantic acidophilous beech forests with Ilex and sometimes also Taxus in the shrublayer (Quercion robori-petraeae or Ilici-Fagenion)
- Asperulo-Fagetum beech forests
- Old acidophilous oak woods with Quercus robur on sandy plains
- Bog woodland
- Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae)

Annex I habitats present as a qualifying feature, but not a primary reason for selection of this site:

- Transition mires and quaking bogs
- Alkaline fens

Annex II species that are a primary reason for selection of this site

- Southern damselfly Coenagrion mercurial
- Stag beetle Lucanus cervus

Annex II species present as a qualifying feature, but not a primary reason for site selection:

Great crested newts Triturus cistatus

The following features are reasons for designation as an SPA:

This site qualifies under Article 4.1 of the Directive (79/409/EEC) by supporting populations of European importance of the following species listed on Annex I of the Directive:

During the breeding season;

- Dartford Warbler Sylvia undata, 538 pairs representing at least 33.6% of the breeding population in
- Honey Buzzard Pernis apivorus, 2 pairs representing at least 10.0% of the breeding population in **Great Britain**
- Nightjar Caprimulgus europaeus, 300 pairs representing at least 8.8% of the breeding population in Great Britain
- Woodlark Lullula arborea, 184 pairs representing at least 12.3% of the breeding population in Great Britain (Count as at 1997)

Over winter:

Hen Harrier Circus cyaneus, 15 individuals representing at least 2.0% of the wintering population in **Great Britain**

The following features are reasons for designation as a Ramsar:

Ramsar criterion 1

Valley mires and wet heaths are found throughout the site and are of outstanding scientific interest. The mires and heaths are within catchments whose uncultivated and undeveloped state buffer the mires against adverse ecological change. This is the largest concentration of intact valley mires of their type in Britain.

Ramsar criterion 2

The site supports a diverse assemblage of wetland plants and animals including several nationally rare species. Seven species of nationally rare plant are found on the site, as are at least 65 British Red Data Book species of invertebrate.

Ramsar criterion 3

The mire habitats are of high ecological quality and diversity and have undisturbed transition zones. The invertebrate fauna of the site is important due to the concentration of rare and scare wetland species. The whole site complex, with its examples of semi-natural habitats is essential to the genetic and ecological diversity of southern England.

Environmental Vulnerabilities Relevant to the Plan⁴³

The threats and pressures likely to affect the SPA, SAC and Ramsar are listed below:

- Drainage
- Inappropriate scrub control
- Fish stocking
- Deer
- Air pollution
- Public access/disturbance
- Change in land management
- Change in species distribution
- Water pollution
- Forestry and woodland management
- Inappropriate ditch management
- Invasive species
- Vehicles
- Inappropriate cutting/mowing
- Direct impact from 3rd party

⁴³ http://publications.naturalengland.org.uk/publication/5174614971908096 [Accessed 10/09/2018]

Solent Maritime SAC

Introduction

The Solent Maritime SAC encompasses a major estuarine system on the south coast of England with four coastal plain estuaries (Yar, Medina, King's Quay Shore, Hamble) and four bar-built estuaries (Newtown Harbour, Beaulieu, Langstone Harbour, Chichester Harbour). The site is the only one in the series to contain more than one physiographic sub-type of estuary and is the only cluster site. The Solent and its inlets are unique in Britain and Europe for their hydrographic regime of four tides each day, and for the complexity of the marine and estuarine habitats present within the area. Sediment habitats within the estuaries include extensive estuarine flats, often with intertidal areas supporting eelgrass Zostera spp. and green algae, sand and shingle spits, and natural shoreline transitions. The mudflats range from low and variable salinity in the upper reaches of the estuaries to very sheltered almost fully marine muds in Chichester and Langstone Harbours. Unusual features include the presence of very rare sponges in the Yar estuary and a sandy 'reef' of the polychaete Sabellaria spinulosa on the steep eastern side of the entrance to Chichester Harbour.

Conservation Objectives⁴⁴

With regard to the SAC and the natural habitats and/or species for which the site has been designated (the 'Qualifying Features' listed below), and subject to natural change;

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

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

Qualifying Features⁴⁵

Annex I habitats that are a primary reason for selection of this site:

- **Fstuaries**
- Cord-grass swards
- Atlantic salt meadows

Annex I habitats present as a qualifying feature, but not a primary reason for selection of this site:

- Subtidal sandbanks
- Intertidal mudflats and sandflats
- Coastal lagoons (*Priority Feature)
- Annual vegetation of drift lines
- Coastal shingle vegetation outside of the reach of waves
- Glasswort and other annuals colonising mud and sand
- Shifting dunes with marram

Annex II species present as a qualifying feature, but not a primary reason for site selection

⁴⁴ http://publications.naturalengland.org.uk/publication/5762436174970880 [Accessed 10/09/2018]

⁴⁵ http://jncc.defra.gov.uk/protectedsites/sacselection/sac.asp?EUCode=UK0030059 [Accessed 10/09/2018]

Desmoulin's whorl snail.

Environmental Vulnerabilities Relevant to the Plan⁴⁶

The threats and pressures likely to affect the SPA, SAC and Ramsar are listed below:

- Public access/disturbance
- Coastal squeeze
- Fisheries: commercial marine and estuarine
- Water pollution
- Change in site conditions
- Invasive species
- Direct land-take from development
- Change in land management
- Air pollution
- Hydrological changes
- Direct impact from third party
- Extraction: non-living resources

⁴⁶ http://publications.naturalengland.org.uk/publication/4692013588938752 [Accessed 10/09/2018]

Solent and Southampton Water SPA & Ramsar

Introduction

The Solent and Southampton Water are located on the south English coast. The area covered extends from Hurst Spit to Hill Head along the south coast of Hampshire and from Yarmouth to Whitecliff Bay along the north coast of the Isle of Wight. The site comprises a series of estuaries and harbours with extensive mud-flats and saltmarshes together with adjacent coastal habitats including saline lagoons, shingle beaches, reedbeds, damp woodland and grazing marsh. The mud-flats support beds of Enteromorpha spp. and Zostera spp. and have a rich invertebrate fauna that forms the food resource for the estuarine birds. In summer, the site is of importance for breeding seabirds, including gulls and four species of terns. In winter, the SPA holds a large and diverse assemblage of waterbirds, including geese, ducks and waders. Dark-bellied brent goose Branta b. bernicla also feed in surrounding areas of agricultural land outside the SPA.

Conservation Objectives⁴⁷

With regard to the SPA and the individual species and/or assemblage of species for which the site has been classified (the 'Qualifying Features' listed below), and subject to natural change;

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

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

Qualifying Features⁴⁸

The following features are reasons for designation as an SPA:

This site qualifies under Article 4.1 of the Directive (79/409/EEC) by supporting populations of European importance of the following species listed on Annex I of the Directive:

During the breeding season;

- Common Tern Sterna hirundo, 267 pairs representing at least 2.2% of the breeding population in Great Britain (5 year peak mean, 1993-1997)
- Little Tern Sterna albifrons, 49 pairs representing at least 2.0% of the breeding population in Great Britain (5 year peak mean, 1993-1997)
- Mediterranean Gull Larus melanocephalus, 2 pairs representing at least 20.0% of the breeding population in Great Britain (5 year peak mean, 1994-1998)
- Roseate Tern Sterna dougallii, 2 pairs representing at least 3.3% of the breeding population in Great Britain (5 year peak mean, 1993-1997)
- Sandwich Tern Sterna sandvicensis, 231 pairs representing at least 1.7% of the breeding population in Great Britain (5 year peak mean, 1993-1997)

This site also qualifies under Article 4.2 of the Directive (79/409/EEC) by supporting populations of European importance of the following migratory species:

Over winter;

⁴⁷ http://publications.naturalengland.org.uk/publication/6567218288525312 [Accessed 10/09/2018]

⁴⁸ http://jncc.defra.gov.uk/default.aspx?page=2037 [Accessed 10/09/2018]

- Black-tailed Godwit *Limosa limosa islandica*, 1,125 individuals representing at least 1.6% of the wintering Iceland breeding population (5 year peak mean, 1992/3-1996/7)
- Dark-bellied Brent Goose *Branta bernicla bernicla*, 7,506 individuals representing at least 2.5% of the wintering Western Siberia/Western Europe population (5 year peak mean, 1992/3-1996/7)
- Ringed Plover *Charadrius hiaticula*, 552 individuals representing at least 1.1% of the wintering Europe/Northern Africa wintering population (5 year peak mean, 1992/3-1996/7)
- Teal Anas crecca, 4,400 individuals representing at least 1.1% of the wintering Northwestern Europe population (5 year peak mean, 1992/3-1996/7)

Assemblage qualification: A wetland of international importance.

The area qualifies under Article 4.2 of the Directive (79/409/EEC) by regularly supporting at least 20,000 waterfowl.

Over winter, the area regularly supports 53,948 individual waterfowl (5 year peak mean 1991/2 - 1995/6) including: Gadwall Anas strepera, Teal Anas crecca, Ringed Plover Charadrius hiaticula, Black-tailed Godwit Limosa limosa islandica, Little Grebe Tachybaptus ruficollis, Great Crested Grebe Podiceps cristatus, Cormorant Phalacrocorax carbo, Dark-bellied Brent Goose Branta bernicla bernicla, Wigeon Anas penelope, Redshank Tringa totanus, Pintail Anas acuta, Shoveler Anas clypeata, Red-breasted Merganser Mergus serrator, Grey Plover Pluvialis squatarola, Lapwing Vanellus vanellus, Dunlin Calidris alpina alpina, Curlew Numenius arquata, Shelduck Tadorna tadorna.

The following features are reasons for designation as a Ramsar:

Ramsar Criterion 1

The site is one of the few major sheltered channels between a substantial island and mainland in European waters, exhibiting an unusual al strong double tidal flow and has long periods of slack water at high and low tide. It includes many wetland habitats characteristic of the biogeographic region: saline lagoons, saltmarshes, estuaries, intertidal flats, shallow coastal waters, grazing marshes, reedbeds, coastal woodland and rocky boulder reefs.

Ramsar Criterion 2

The site supports an important assemblage of rare plants and invertebrates. At least 33 British Red Data Book invertebrates and at least eight British Red Data Book plants are represented on site.

Ramsar Criterion 5

Assemblages of international importance:

Species with peak counts in winter: 51,343 waterfowl (5 year peak mean 1998/99-2002/2003)

Ramsar Criterion 6

Species/populations occurring at levels of international importance. Qualifying Species/populations (as identified at designation):

Species with peak counts in spring/autumn:

 Ringed plover, Charadrius hiaticula, Europe/Northwest Africa 397 individuals, representing an average of 1.2% of the GB population (5 year peak mean 1998/9- 2002/3)

Species with peak counts in winter:

- Dark-bellied Brent goose, *Branta bernicla bernicla*, 6456 individuals, representing an average of 3% of the population (5 year peak mean 1998/9- 2002/3)
- Eurasian teal, *Anas crecca*, NW Europe 5514 individuals, representing an average of 1.3% of the population (5 year peak mean 1998/9-2002/3)

• Black-tailed godwit, *Limosa limosa islandica*, Iceland/W Europe 1240 individuals, representing an average of 3.5% of the population (5 year peak mean 1998/9-2002/3)

Environmental Vulnerabilities Relevant to the Plan

- Public access/disturbance
- Coastal squeeze
- Fisheries: commercial marine and estuarine
- Water pollution
- Changes in species distributions
- Climate change
- Change to site conditions
- Invasive species
- Biological resource use
- Change in land management
- Inappropriate pest control
- Air pollution
- Direct impact from third party

Avon Valley SPA and Ramsar

Introduction

The Avon Valley SPA encompasses the lower reaches of the River Avon and its floodplain on the south coast of England. The site extends for approximately 20 km between Bickton and Christchurch. The River Avon displays wide fluctuations in water level and parts of the valley are regularly flooded in winter. Consequently, the valley includes one of the largest expanses of unimproved floodplain grassland in Britain, including extensive areas managed as hay meadows and grazing marsh under low-intensity agricultural systems. These extensive floodplain grasslands support wintering Bewick's Swans Cygnus columbianus bewickii in numbers of European importance, and Blashford Lakes Gravel Pits within the SPA are particularly important for wintering Gadwall Anas strepera.

Conservation Objectives⁴⁹

With regards to the SPA and the individual species and/or assemblages of species for which the site has been classified (the 'Qualifying Features' listed below), and subject to natural change;

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

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

Qualifying Features⁵⁰⁵¹

The following features are reasons for designation as an SPA:

Over winter:

Bewick's swan Cygnus columbianus bewickii, 135 individuals representing at least 1.9% of the wintering population in Great Britain *5 year peak mean 1991/2 - 1995/6)

This site also qualifies under Article 4.2 of the Directive (79/409/EEC) by supporting populations of European importance of the following migratory species:

Over winter:

Gadwall Anas strepera, 667 individuals representing at least 2.2% of the wintering North-western European population (5 year peak mean 1991/2 – 1995/6)

The following features are reasons for designation as a Ramsar:

Ramsar criterion 1

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

Ramsar criterion 2

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

⁴⁹ http://publications.naturalengland.org.uk/publication/5741820348727296 [Accessed 14/11/18]

⁵⁰ http://jncc.defra.gov.uk/default.aspx?page=2038 [Accessed 14/11/18]

http://jncc.defra.gov.uk/pdf/RIS/UK11005.pdf [Accessed 14/11/18]

Ramsar criterion 6

Species/populations occurring at levels of international importance. Qualifying species/populations as identified at designation:

Species with peak counts in the winter:

• Gadwall, *Anas strepera strepera*, NW Europe. 537 individuals, representing 3.1% of the GB population (5 year peak mean 1998/9 – 2002/3)

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

Species with peak counts in the winter:

- Northern pintail, *Anas acuta*, NW Europe. 715 individuals, representing an average of 1.1% of the population (5 year peak mean 1998/9 2002/3)
- Black-tailed godwit, *Limosa limosa islandica*, Iceland/W Europe. 1142 individuals, representing an average of 3.2% of the population (5 year peak mean 1998/9 2002/3).

Environmental Vulnerabilities Relevant to the Plan⁵²

- Water pollution
- Changes in species distribution
- Public Access/disturbance
- Inappropriate weed control
- Change in land management
- Habitat fragmentation

⁵² http://publications.naturalengland.org.uk/publication/6133502894407680 [Accessed 14/11/18]

River Avon SAC

Introduction

The Avon in southern England is a large, lowland river system that includes sections running through chalk and clay, with transitions between the two. Five aquatic *Ranunculus* species occur in the river system, but stream water-crowfoot *Ranunculus* penicillatus ssp. pseudofluitans and river water-crowfoot *R. fluitans* are the main dominants. Some winterbourne reaches, where *R. peltatus* is the dominant water-crowfoot species, are included in the SAC.

Conservation Objectives⁵³

With regards to the SAC and the natural habitats and/or species for which the site has been designated (the 'Qualifying Features' listed below), and subject to natural change;

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

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

The distribution of qualifying species within the site.

Qualifying Features⁵⁴

The following features are reasons for designation as an SAC:

Annex I habitats that are a primary reason for selection of this site:

Rivers with floating vegetation often dominated by water-crowfoot

Annex II species that are a primary reason for selection of this site:

- Desmoulin's whorl snail Vertigo moulinsiana
- Sea lamprey Petromyzon marinus
- Brook lamprey Lampetra planeri
- Atlantic salmon Salmo salar
- Bullhead Cottus gobio

Environmental Vulnerabilities Relevant to the Plan⁵⁵

- Physical modification
- Siltation
- Water pollution
- Water abstraction
- · Changes in species distribution

⁵³ http://publications.naturalengland.org.uk/publication/6048472272732160 [Accessed 14/11/18]

http://jncc.defra.gov.uk/protectedsites/sacselection/sac.asp?EUCode=UK0013016 [Accessed 14/11/18]

http://publications.naturalengland.org.uk/publication/6133502894407680 [Accessed 14/11/18]

- Invasive species
- Hydrological changes
- Inappropriate weed control
- Habitat fragmentation

AECOM 45 Prepared for: Locality

Dorset Heathlands SPA and Ramsar

Introduction

The Dorset Heathlands cover an extensive complex of heathland sites at the western edge of the Hampshire Basin in southern England. The area is centred around the large estuary of Poole Harbour and lies in close proximity to the urban conurbation of Bournemouth and Poole. Past losses of the heathland (an estimated 75% during the twentieth century to development, agriculture and afforestation) have left the remaining heaths in a highly fragmented state. Despite this decline and fragmentation, the heaths show a high degree of ecological cohesion. They contain large areas of dry heath, wet heath and acid valley mire, all habitats that are restricted to the Atlantic fringe of Europe. The examples of the Dorset Heathlands are among the best of their type in the UK. There are also transitions to coastal wetlands and floodplain fen habitats. The whole complex has an outstanding fauna in a European context, covering many different taxa. Many species have a specialist ecology, strongly associated with, or restricted to, heathland. The area is ornithologically important for specialist breeding birds of lowland heathland, as well as for some wintering raptors.

Conservation Objectives⁵⁶

With regards to the SPA and the individual species and/or assemblage is species for which the site has been classified (the 'Qualifying Features' listed below), and subject to natural change;

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

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

Qualifying Features⁵⁷⁵⁸

The following features are reasons for designation as an SPA:

This site qualifies under Article 4.1 of the Directive (79/409/EEC) by supporting populations of European importance of the following species listed on Annex 1 of the Directive:

During the breeding season:

- Dartford warbler Sylvia undata, 418 pairs representing at least 26.1% of the breeding population on Great Britain (three count mean, 1991-2 & 1994
- Nighjar Caprimulgus europaeus, 386 pairs representing at least11.4% of the breeding population in Great Britain (two year mean 1991-2992)
- Woodlark Lullula arborea, 60 pairs representing at least 4.0% of the breeding population in Great Britain (coun as at 1997)

Over winter:

- Hen harrier Circus cyaneus, 20 individuals representing at least 2.7% of the wintering population in Great Britain (count as at 1991/2)
- Merlin Falco columbarius, 15 individuals representing at least 1.0% of the wintering population in Great Britain (count as at 1991/2)

The following features are reasons for designation as a Ramsar:

⁵⁶ http://publications.naturalengland.org.uk/publication/5808199001178112 [Accessed 14/11/18]

⁵⁷ http://jncc.defra.gov.uk/page-2030-theme=default [Accessed 14/11/18]

⁵⁸ http://jncc.defra.gov.uk/pdf/RIS/UK11021.pdf [Accessed 14/11/18]

Ramsar criterion 1

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

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

Ramsar criterion 2

Supports one nationally rare and 13 nationally scarce wetland plant species, and at least 28 nationally rare wetland invertebrate species.

Ramsar criterion 3

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

Environmental Vulnerabilities Relevant to the Plan⁵⁹

- Inappropriate scrub control
- Public access/disturbance
- Forestry and woodland management
- Invasive species
- Habitat fragmentation
- Wildfire/arson

⁵⁹ http://publications.naturalengland.org.uk/publication/5181909839642624 [Accessed 14/11/18]

Dorset Heaths SAC

Introduction

This is a complex site which includes 37 SSSIs, most of which include fine transitions between European dry heaths and wet lowland heathland and mires, as well as other habitats such as woodland, grassland, pools, saltmarsh and reedswamp. The area of heathland has been reduced and fragmented, with about 86% lost since the mid-18th century. The two Dorset Heaths cSACs, together with the New Forest, support a large proportion of the resource of depressions on peat substrates within England. The habitat is widespread on the Dorset Heaths, both in bog pools of valley mires and in flushes. There are numerous valley mires within the Dorset Heaths, and the habitat type is most extensively represented here as part of a habitat mosaic.

Conservation Objectives⁶⁰

With regard to the SAC and the natural habitats and/or species for which the site has been designated (the 'Qualifying Features' listed below), and subject to natural change;

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

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

Qualifying Features⁶¹

The following features are reasons for designation as an SAC:

Annex I habitats that are a primary reason for selection of this site:

- · Wet heathland with cross-leaved heath
- Dry heaths
- Depressions on peat substrates

Annex I habitats present as a qualifying feature, but not primary reason for selection of this site:

- Purple moor-grass meadows
- Calcium-rich fens dominated by great fen sedge (saw sedge).
- Calcium-rich spring-water-fed fens
- Dry oak dominated woodlands

Annex II species that are a primary reason for selection of this site:

Southern damselfly Coenagrion mercurial

Annex II species present as a qualifying feature, but not a primary reason for site selection:

• Great crested newts Triturus cristatus

60 http://publications.naturalengland.org.uk/publication/5711678738006016 [Accessed 14/11/18]

⁶¹ http://jncc.defra.gov.uk/protectedsites/sacselection/sac.asp?EUCode=UK0019857 [Accessed 14/11/18]

Environmental Vulnerabilities Relevant to the Plan

- Inappropriate scrub control
- Public access/disturbance
- Undergrazing
- Forestry and woodland management
- Drainage
- Water pollution
- Invasive species
- Habitat fragmentation
- Conflicting conservation objectives
- Wildfire/arson
- Air pollution
- Deer

Solent and Isle of Wight Lagoons SAC

Introduction

The Solent on the south coast of England encompasses a series of Coastal lagoons, including percolation, isolated and sluiced lagoons. The site includes a number of lagoons in the marshes in the Keyhaven – Pennington area, at Farlington Marshes in Chichester Harbour, behind the sea-wall at Bembridge Harbour and at Gilkicker, near Gosport. The lagoons show a range of salinities and substrates, ranging from soft mud to muddy sand with a high proportion of shingle, which support a diverse fauna including large populations of three notable species: the nationally rare foxtail stonewort *Lamprothamnium papulosum*, the nationally scarce lagoon sand shrimp *Gammarus insensibilis*, and the nationally scarce starlet sea anemone *Nematostella vectensis*. The lagoons in Keyhaven – Pennington Marshes are part of a network of ditches and ponds within the saltmarsh behind a sea-wall. Farlington Marshes is an isolated lagoon in marsh pasture that, although separated from the sea by a sea-wall, receives sea water during spring tides. The lagoon holds a well-developed low-medium salinity insect-dominated fauna. Gilkicker Lagoon is a sluiced lagoon with marked seasonal salinity fluctuation and supports a high species diversity. The lagoons at Bembridge Harbour have formed in a depression behind the sea-wall and sea water enters by percolation. Species diversity in these lagoons is high and the fauna includes very high densities of *N. vectensis*.

Conservation Objectives⁶²

With regard to the SAC and the natural habitats and/or species for which the site has been designated (the 'Qualifying Features' listed below), and subject to natural change;

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

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

Qualifying Features⁶³

The following features are reasons for designation as an SAC:

Annex I habitats that are a primary reason for selection of this site:

Coastal lagoons

Environmental Vulnerabilities Relevant to the Plan⁶⁴

- Hydrological changes
- Inappropriate weed control
- Coastal squeeze
- Invasive species
- Air pollution

62 http://publications.naturalengland.org.uk/publication/5646122018144256 [Accessed 14/11/18]

⁶³ http://jncc.defra.gov.uk/protectedsites/sacselection/sac.asp?EUCode=UK0017073 [Accessed 14/11/18]

http://publications.naturalengland.org.uk/publication/5670639268528128 [Accessed 14/11/18]

Appendix B Screening Table

Table 6-1. Policy and Site Allocation Screening Table

Policy	Description	Likely Significant Effects
Policy NM1 A Spatial Plan for New Milton	development to the town of New Milton, as shown on the Policies Map. Barton-on-Sea, as shown on the Policies Map, is mainly suited to small scale, infill residential and	No Impact Pathways This policy is an overall spatial management policy which does not provide quantum of development merely directs the appropriate areas of the Parish.
Policy NM2 Diversifying Housing	suitable for first time buyers or those looking to rent their first home. In the case of Strategic Site allocations and other developments of 100 or more, proposals must include	No Impact Pathways This policy does not provide for a quantum of housing, it is a development management policy ensuing a diversity of housing where housing will be provided.
Policy NM3 Land at Caird Avenue	 regard to the following principles and the retail scheme subject to an appropriate sequential test: A. The employment scheme shall comprise land to deliver 1,800 sq.m. GEA of B1 floor space to be accessed from the minerals access road only; B. The food retail scheme shall comprise land to deliver approx.1,800 sq.m. GEA of A1 floorspace to be accessed from the minerals access road only; C. The green infrastructure scheme shall comprise: i. An effective landscape buffer to screen the adjoining minerals operations, the employment land from residential development and to screen Carrick Way Woodland a Site of Importance for Nature Conservation; ii. The retention of existing trees on the southern boundary and retention of the existing shelter belt of mature trees/hedgerow and green verges on the western boundary to maintain the green setting of Caird Avenue; and, 	HRA Implications This policy provides 1,800m² of B1 employment floor space and 1,800m² of A1 food retail floor space at Caird Avenue. The potential HRA implications of this policy include: - Air Quality - Water Resources; and, - Water Quality. The centroid grid reference for this allocation is: SZ25489454 and is within 10km of: - New Forest SAC, Ramsar, SPA (3.6km N) - Solent & Southampton Water Ramsar, SPA (4.4km SE)

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Policy Description Likely Significant Effects

- E. The infrastructure scheme shall comprise:
 - A comprehensive package of on and off-site transport and movement measures that link to the movement network defined in Policy NM14 to satisfactorily mitigate the effect of the comprehensive scheme on local roads and to encourage the use of sustainable modes of transport; and
 - The delivery and maintenance of an effective sustainable drainage system including the protection of the Danes Stream and the retention of at least an 8m buffer zone.
- F. The layout of the site is planned to ensure future access to the existing sewerage infrastructure for maintenance and upsizing processes.

- Solent Maritime SAC (4.8km SE)
- Solent & Isle of Wight Lagoons SAC (6.9km W)
- Dorset Heathlands SPA, Ramsar (8km SW)
- Dorset Heaths SAC (8km SE)
- Avon Valley SPA, Ramsar (9.1km W)
- River Avon SAC (9.2km W)

pathways have been identified for this policy.

No Impact Pathways

All development and surrounding spaces, including alterations and extensions to existing buildings and replacement dwellings, will be well designed to reflect the distinctive character of the town, as described in the New Milton Local Distinctiveness Supplementary Planning Document, and of the settlements within the New Forest National Park will be required to demonstrate that development:

- Is of high quality design and layout and includes appropriate landscaping and well-connected greenspace integrated with existing landscape features;
- ii. Contributes positively to, and clearly defines, public and private realms and should normally be designed with active building frontages facing streets and public open space to provide natural surveillance:
- iii. Creates a sense of place while addressing the character and scale of the surrounding buildings and landscape:
- iv. Contributes to local distinctiveness and where possible should enhance local character and heritage including the special character of the New Forest National Park.
- v. Protects open spaces, trees and gardens that contribute to the character of the area;
- vi. Does not cause significant harm to the amenities of existing nearby residents and future occupants of new dwellings, including taking account of the impact on privacy, outlook, daylight and sunlight;
- vii. Creates a pedestrian-friendly layout that is safe, well connected, legible and accessible;
- viii. Incorporates well integrated parking that does not dominate the street environment and consideration should be given to availability of electric vehicle charging points in communal parking areas:
- ix. Positively addresses climate change through early consideration of layout and building design, and through passive design, energy efficiency and renewable energy measures;
- x. Takes the opportunity to encourage community interaction by creating layouts with a focus of community; and
- xi. Optimises the potential of the site deliver housing typologies suited to younger people and families in accordance with other policies of the development plan; and,
- xii. Optimises the potential of the site to accommodate development.

In addition to the above requirements all development proposals must ensure the protection of local biodiversity assets and should seek to provide additional habitat resources for wildlife and green spaces for the community that result in a biodiversity 'net' gain for the town.

Larger developments of over 50 dwellings should include areas which will provide a community focus

This is a development management policy based on design principles which are reflected in the New Milton Local Distinctiveness Supplementary Planning Document. This policy does not allocate a

quantum of residential development and therefore no impact

Policy NM4: Design Quality

Policy NM5 New Milton Town

Centre Regeneration area

Project number: 60571087

Description **Likely Significant Effects Policy**

and amenities such as communal gardens.

New and improved utility infrastructure will be encouraged and supported in order to meet the identified needs of the community subject to other policies in the development plan.

The Neighbourhood Plan identifies the New Milton Town Centre area, as shown on the Policies Inset HRA Implications Map, for the purpose of supporting a range of redevelopment opportunities to deliver at least 250 residential homes and retail, cultural, health and business investment.

Proposals for redevelopment in addition to those allocated specifically for this purpose, will be supported provided they demonstrate how they will contribute to the Town Centre Vision and accord with relevant policies of the Development Plan.

Development proposals, where adjoining a proposed route defined in Policy NM12, must ensure that the needs of pedestrians, cyclists and public transport users are fully taken into account and that commercial uses can continue to be serviced.

Proposals to create livelier and more active street frontages and an improved public realm along Station Road. Ashley Road and Old Milton Road, will be supported. Such proposals might include widened footpaths, attractive pedestrian and cycle crossings, the introduction of areas of shared space, street planting and junction improvements.

The areas within Policy NM5 are described below (from supporting text);

New Milton Station (Area A) estimated capacity 75 dwellings - This opportunity area could contribute significantly to Town Centre residential numbers. Uses within this block should include parking at ground level with an additional above ground level; and residential on the upper floors. The site is considered to be particularly suitable for a high-density apartment scheme.

Manor Road - Station Road (Area B) estimated capacity 35 dwellings - This area offers an opportunity for mixed use development or redevelopment which could include non-residential and community uses at ground level with office and residential uses at upper levels.

- Osborne Road Station Road (Area C) estimated capacity 20 dwellings Proposals for mixed use development or redevelopment on this site could include retail, office and hotel uses on ground floor with office, residential for approximately 20 homes or hotel uses on the upper floors.
- Station Road Spencer Road (Area D) estimated capacity 60 dwellings The redevelopment of this site could contribute to town centre residential numbers and provide for retail floorspace. Proposals for mixed use development or redevelopment on this site should include retail uses at ground floor with office, residential uses at upper levels at an appropriate scale to be determined in any future planning application.
- Station Road Elm Avenue (Area E) estimated capacity 35 dwellings the department store site offers opportunity to create new or updated retail floorspace at ground level and first floor level with residential development above. The Old Milton Road Vintage Quarter also provides opportunities to redevelop some older industrial, office and retail uses and car parking areas to create a distinctive, affordable and diverse independent retail and café/restaurant area.
- Old Milton Road Crossmead Avenue (Area F) estimated capacity 30 The area offers opportunities for selective or wholesale development with the parking area having potential as

The policy does not allocate dwellings at any site within the New Milton Town Centre Regeneration Area, merely states the potential capacity of residential dwellings each site could hold. This policy supports residential development within all areas of the Town Centre (A-F on the policies map). The policy states that at least 250 dwellings will be directed towards the regeneration area.

Therefore, potential HRA implications include:

- Recreational Pressure
- Air Quality
- Water Resources
- Water Quality

The centroid grid reference of the Town Centre Regeneration Area is: SZ24349500 and is within 10km of:

- New Forest SAC, SPA and Ramsar (2.9 km N)
- Solent and Southampton Water SPA, Ramsar (5.4 km SE)
- Solent Maritime SAC (5.8 km SE)
- Dorset Heathlands SPA (7.0 km SW)
- Dorset Heaths SAC (7.0 km SW)
- Avon Valley SPA, Ramsar (7.8 km W)
- River Avon SAC (7.9 km W)
- Solent and Isle of Wight Lagoons (8.4 km E)
- Dorset Heathlands Ramsar (9.0 km W)

Policy	Description	Likely Significant Effects
	a secondary multi-functional 'square' space for parking, markets, events etc. The Old Milton Road – Compton Road block offers similar retail/residential opportunities on site	
Policy NM6 Heritage and Information Centre	The Neighbourhood Plan identifies New Milton Station, as shown on the Policies Inset Map, as a Town Centre redevelopment scheme. Development proposals will be supported for the conversion of the Station Masters house to a D1 heritage/information centre.	No Impact Pathways This policy supports the conversion of the Station Masters house to a heritage and information centre. This policy does not provide for a quantum of housing or tourist accommodation.
Policy NM7 Cultural/Arts Hub	The Neighbourhood Plan identifies the provision of a Cultural/ Art Hub, as shown on the Policies Map, as a Town Centre redevelopment scheme, Development proposals will be supported for the redevelopment of the current community and ancillary buildings to create new multi-purpose cultural facility for the town and the improvement of the War Memorial Recreation Ground as the main town park. The proposals must include the provision of a footpath link with the site to improve connectivity between Old Milton Road and Gore Road to Station Road and Whitefield Road.	No Impact Pathways This policy supports the redevelopment of current buildings on site to create a multi-purpose cultural facility and supports improvements to the War Memorial Recreation Ground. The policy does not allocate a quantum of housing or employment space. Therefore no impact pathways have been identified for this policy
Policy NM8 Health and Wellbeing Centre	The Neighbourhood Plan identifies Health and Wellbeing Centre, as shown on the Policies Map, as a town Centre redevelopment scheme. Development proposals will be supported for the co-location of health and well-being services and for an expanded facility to serve a larger and more diverse local community.	No Impact Pathways This policy relates to supporting improvements for health and well-being services. This policy does not allocate a quantum of housing or employment space. Therefore no impact pathways have been identified for this policy.
Policy NM9 Innovation and Business Centre	Town Centre redevelopment scheme. Development proposals for new B1 flexible, affordable office accommodation to serve start-up businesses will be supported to assist in the diversification of the local economy. Proposals should include access to ultra-fast broadband and providing a support hub for local businesses including training and seminar facilities.	HRA Implications This policy relates to new development of office space. Although this policy does not allocate a quantum the site has been allocated within the Neighbourhood plan for the purpose of employment facilities. The policy has the potential to increase journeys to work, therefore the following impact pathways have been identified: - Air Quality - Water Quality - Water Resources The centroid grid reference is: SZ24069464 and is within 10km of:

Policy	Description	Likely Significant Effects
		 New Forest SAC, SPA and Ramsar (3.6 km N) Solent and Southampton Water SPA, Ramsar (5.8 km SE) Solent Maritime SAC (6.2 km SE) Dorset Heaths SAC (7.1 km SW) Avon Valley SPA, Ramsar (7.9 km W) River Avon SAC (8.0 km W) Solent and Isle of Wight Lagoons (8.0 km E) Dorset Heathlands SPA (9.0 km SW) Dorset Heathlands Ramsar (9.0 km W)
Policy NM10: Buildings of Local Heritage and Townscape Value	townscape value: i. Lloyds Bank building, 47 Station Road ii. New Milton Station buildings, platforms and canopies – both sides iii. The former Milton Hall (presently a furniture showroom)	No Impact Pathways This is a heritage protection policy and works to ensure that development of the town does not result in the loss or substantial harm to any heritage assets. Therefore there are no impact pathway identified for this policy
Policy NM11: Mitigating Effects on European Sites	sites. This could be through on-site provision or off-site financial contributions in accordance with the requirements of the development plan, including compliance with the Mitigation Strategy for European Sites (Recreational Pressure from Residential Development) SPD as it applies to New Forest SPA, SAC and Ramsar site. Solent Maritime SAC, Solent and Southampton Water SPA and Ramsar site, and where received in the strategy of the New Forest SAC.	No Impact Pathways This is an environment protection policy and works to ensure that the integrity of European sites are not adversely affected. Therefore there are no impact pathways identified for this policy. This is a positive policy.
Policy NM12 Promoting Walking and Cycling	of the town with the Town Centre will be supported. Development proposals on land that lies within proximity of the 'Green Loop' will be supported where they: i. demonstrate how they sustain or enhance the collective function of the network:	No Impact Pathways This policy is promoting walking and cycling as sustainable transport. The development which is supported within this policy will be subject to other policies within the neighbourhood plan to ensure no effect on European sites, the policy here is solely to ensure financial contributions to improve pathways and cycle routes are provided by development in proximity to the "Green Loop".

Policy	Description	Likely Significant Effects
	avoiding having an urbanising effect on any existing Public Rights of Way. Development proposals requiring the preparation and agreement of travel plans as planning conditions or obligations, are required to prioritise in their travel interventions the making of financial contributions to footpath and cycleway improvement projects connecting their schemes with the town centre, including the strategic allocations at Land at Brockhills Lane and Land South of Gore Road. Development proposals that will result on the unnecessary loss or obstruction of a section of	
	 i. Openness of frontage, spaciousness, views and skyline ii. Consistent building lines iii. Consistent boundary heights 	No Impact Pathways This is a development management policy focusing on keeping new development in line with the current characteristics of the seafront town of Barton-on-Sea. This policy does not provide a quantum of housing merely relates to the façade and garden characteristic of development put forward in this location. Therefore no impact pathways have been identified for this policy.
Policy NM13: Barton-on-Sea	Sardens Xiii. Consistent set back creating a margin of garden to almost every street; Xiv. Well stocked and maintained front garden Xv. Low frontage enclosure Xvi. Mown grass road verges Xvii. Occasional pine trees Xviii. Consistency of street rhythms, building lines, gaps between buildings, eaves heights and roof forms in bungalow area – predominantly uninterrupted hipped simple roofs and simple building forms Xix. Peaceful green internal spaces to the blocks XX. Consistent urban grain of separate units of similar footprint laid out in a clear perimeter; block structure XXi. Underlying retained lanes XXii. Occasional special buildings XXiii. Lane edges of trees, occasional field hedge remnants, banks and informal verges XXiv. Avenues XXV. Garden 'islands' where strips of trees and larger shrubs and hedges are created especially in	

Policy	Description	Likely Significant Effects
	longer garden areas xxvi. Deep margins of front garden space xxvii. Mown grass road verges xxviii. Occasional pine trees Becton Bunny All development proposals in proximity to Long Meadow should seek opportunities to enhance Becton Bunny and wherever possible provide additional flood capacity and habitat improvements.	
		No Impact Pathways
Policy NM14: The Rural Areas in the National Park	supported within or adjoining the rural settlement of Bashley.	This policy relates to development proposals for areas within the New Forest National Park Authority boundary and ensures that the proposals are compliant with adopted development plan policies for that area. The policy does not allocate a quantum of housing and therefore no impact pathways have been identified.
Policy NM15: Employment	can be demonstrated that the land is no longer in a competitive location to support a continuation of an employment use.	No impact pathways This policy relates to the changing of employment land to land of other land uses if the land is no longer able to support employment land. This policy does not allocate a quantum of housing or employment land and therefore no impact pathways have been identified.
Policy NM16: Tourism	change of use to such accommodation will be supported, provided it can be demonstrated there will be no adverse effect on European sites.	This policy is encouraging the development of tourist accommodation within the areas of New Milton and Barton-on-Sea. Although this policy does not provide for a quantum of development. The policy has the potential to increase the population and therefore increase the demand for water resources as well as water quality from increased effluent. The policy also has the potential to increase tourism to the area which may therefore increase recreational pressure on nearby European site such as the New Forest SAC, SPA and Ramsar site. Therefore potential HRA implications include: - Recreational Pressure - Air Quality - Water Resources - Water Quality
Policy NM17: Early Years	Proposals to develop new day nursery or similar forms of early years education, or to change the use of other buildings for this purpose, will be supported in New Milton, provided they will not cause harm to the	No Impact Pathways

Policy	Description	Likely Significant Effects
Facilities	amenities of adjoining residential areas that cannot be satisfactorily mitigated	This proposal is to develop new day nurseries or to change the use of existing buildings for this purpose. This policy does not provide in itself for an increase in population within the Parish, rather supposed those already present. Therefore no impact pathways have been identified for this policy.
Policy NM18 Education	Proposals to extend, improve and introduce new school place capacity will be supported provided: i. The scale of the buildings and structures minimise the effect of the scheme on local residential amenity by way of traffic, on-street car parking and outdoor noise and lighting pollution. ii. There is adequate provision to encourage walking and/or cycling to and from the school.	No Impact Pathways The central grid reference for the Eaglewood School is: SZ23509460. This policy is to extend, improve and introduced higher school place capacity to the Eaglewood School. This policy does not introduce a higher population through residential development merely provides services for those children which are present within the area.
Policy NM19: Connecting the Town	Development proposals to provide access to an ultra -fast broadband network and to improve the speed of existing services, will be supported, provided the location and design of any above-ground network installations reflect the character of the local area. Proposals for housing and employment schemes must provide appropriate ducting suited to fibre communications technologies that is either connected to the public highway; through satellite broadband; a community led local access network; or to another location that can be justified. Proposals should demonstrate how any development will contribute to and be compatible with local fibre or internet connectivity. This should be through a 'Connectivity Statement' provided with relevant planning applications. Such statements should include details of: i. The intended land use and the anticipated connectivity requirements of the development. ii. Known nearby data networks and their anticipated speed (fixed copper, 3G, 4G, 5G, fibre, satellite, microwave, etc.). iii. Realistic viability and delivery assessments of connection potential or contribution to any such networks. iv. Measures taken by the applicants to work with Telecom providers to ensure that Ultrafast Broadband is available at the point of occupation.	This policy is focused on the provision of ultra-fast speed broadband for the town rather than a quantum of development and therefore no impact pathways have been identified for this policy.

Appendix C Figures

