

NITRATE STATEMENT

ASSESSMENT OF THE PROPOSED DEVELOPMENT FOR 50 RETIREMENT LIVING APARTMENTS AND 2 DWELLINGHOUSES

**LAND AT OAK COTAGE
WINCHESTER ROAD
BOORLEY GREEN**

JANUARY 2026

NITRATE ASSESSMENT OF THE DEVELOPMENT AND ITS MITIGATION

One aspect of the proposed development relates to the Nitrogen load from the development and its eventual discharge into the Solent and how much can be mitigated.

Natural England have provided a "Calculator" which is available on their web site and simplifies the nitrogen load calculations applicable to the development.

One major input relates to the standard occupancy rate which is set at 2.4 persons per unit. This is a national figure which is essentially the national population divided by the number of residential units. This is set out in the advice in 2020 from Natural England as summarized below:

THE ADVICE FOR LPAs NATURAL ENGLAND VERSION 5 - 2 JUNE 2020 (full letter attached as

APPENDIX 1) ACHIEVING NUTRIENT NEUTRALITY FOR NEW DEVELOPMENT IN THE SOLENT

REGION

The advice states the following:

Stage1 Calculate additional population.

- 4.1 *New housing and overnight accommodation can increase the population as well as the housing stock within the catchment. This can cause an increase in nitrogen discharges. To determine the additional population that could arise from the proposed development, it is necessary that sufficiently evidenced occupancy rates are used. Natural England recommends that, as a starting point, local planning authorities should consider using the average national occupancy rate of 2.4, as calculated by the Office for National Statistics (ONS), as this can be consistently applied across all affected areas.*
- 4.2 *However competent authorities may choose to adopt bespoke calculations tailored to the area or scheme, rather than using national population or occupancy assumptions, where they are satisfied that there is sufficient evidence to support this approach.* *Conclusions that inform the use of a bespoke calculation need to be capable of removing all reasonable scientific doubt as to the effect of the proposed development on the international sites concerned, based on complete, precise and definitive findings. The competent authority will need to explain clearly why the approach taken is considered to be appropriate. Calculations for occupancy rates will need to be consistent with others used in relation to the scheme (e.g. for calculating open space requirements), unless there is a clear justification for them to differ.*

The occupancy level of 2.4 persons per unit is not absolute and hence the need to adjust it to reflect actual occupancy.

The updated guidance from Natural England of 16 March 2022 did not change the principles set out above.

Proposed Retirement Living Accommodation. The proposal includes 50 retirement living apartments (30 x 1 bed & 20 x 2 bed). The entry age is set at 55 albeit that typically people on entry are in their late 70s to mid-80s. Accordingly, the standard occupation rate is inappropriate. The appropriate occupancy rate is 1.2 persons per unit which includes a precautionary margin of safety of approximately 20%.

I attach supporting information at **APPENDIX 2 the National Occupancy Table August 2019**. The national occupancy rate per unit is 1.19 for similar RL type developments, and that for the Southern Region, which spans from Cornwall to Kent, it is 1.17 per unit.

A recent permission at Southampton City Council (PA 21/01398/FUL) for an Assisted Living/Extra Care scheme, the occupancy rate agreed by the LPA/NE was 1.2 persons per unit. This occupancy accounted for a degree of precaution as mentioned above and is in addition to the "precautionary uplift" built into the actual calculation tool itself. The HA assessment is Attached at **APPENDIX 3** as is also the LPA assessment relating to a Retirement Living scheme in Test Valley (19/02755/FULLS) which has a younger entry age of 60. This too accepted the occupancy rate of 1.2 persons per unit.

Accordingly, the occupancy rate used for the RL scheme is 1.20 persons per unit (50 x 1.2 = 60 persons).

However, there are also two dwellings whose occupancy rate should be the default of 2.4 persons per unit i.e. 2 x 2.4 = 4.8 persons, which when added to the RL occupancy add up to **64.8 persons**.

In order to have a single "calculator" sheet, the 2 x 3 bed units have been "converted" to 4 additional RL apartments i.e. 4 x 1.2 = 4.8 persons. Accordingly, the calculator refers to 54 units at an occupancy rate of 1.2 which results in a total **occupancy of 64.8 persons**. The same total as calculating the nitrogen load utilizing two separate sheets to differentiate between the two types of residential accommodation.

Utilizing the NE Calculator (**APPENDIX 4**) published in January 2024, with the occupancy adjusted and for the development discharging Peel Common Water Treatment Works, the proposed development requires the mitigation of **35.84 kg/TN/yr**.

With respect to the mitigation itself, my clients have purchased nitrate credits from a NE approved scheme at Whitewool Farm, East Mean, Petersfield, Hampshire which can be secured and linked to this proposal via a Sec 106 Agreement with the LPA or alternatively via a planning condition as imposed by Southampton City Council:

PA 21/01398/FUL

31.APPROVAL CONDITION - Nitrates (pre-commencement condition)

No occupation of each parcel of the development hereby approved shall take place until the Council has received and agreed written evidence that the applicant has purchased sufficient credits from Test Valley Borough Council in partnership with Roke Manor Farm or directly from Roke Manor Farm to offset the {54.20 kg/N/yr nitrates} identified in the

budget and the HRA from the development assuming 1101 of water usage per person per day.

Reason: To secure mitigation against the pressure on European designated nature conservation sites in accordance with Policy CS22 of the Core Strategy and the Conservation of Habitats and Species Regulations 2010.

The above condition would need to be modified to reflect the nitrogen load i.e. **35.84 kg/N.yr.**

A further appeal decision at Lymington (**Appendix 5**) accepted an off-site mitigation solution (para 58) and a condition was duly attached at cond. no16.

The applicant is also willing to deal with the mitigation via the Council's mitigation scheme and will submit the pro-forma to the Council.

APPENDICES:

APPENDIX 1: The Advice for LPAs Natural England Version 5 - 2 June 2020 Achieving Nutrient Neutrality for New Development in The Solent Region

APPENDIX 2: National Occupancy Table August 2019.

APPENDIX 3. Habitat Regulation Assessments

- Southampton City Council Assisted Living & Care Home, 75, The Avenue, Southampton 21/01398/FUL
- Test Valley Council Retirement Living scheme, Abbotswood 19/02755/FULLS.

APPENDIX 4. NE Nitrogen Budget Calculator for Proposal Of 50 RL Apartments And 2 X 3 Bed Houses.

APPENDIX 5. Example condition and appeal decision

- Appeal Decision APP/B1740/W/20/3265937 Site of The Rise and Three neighbouring properties, Stanford Hill , Lymington SO41 8DE

APPENDIX 1

NE ADVICE TO LOCAL PLANNING AUTHORITIES 5 JUNE 2020

ADVICE ON ACHIEVING NUTRIENT NEUTRALITY FOR NEW DEVELOPMENT IN THE SOLENT REGION

SECTION 1 INTRODUCTION

- 1.1 The water environment within the Solent region is one of the most important for wildlife in the United Kingdom. It is internationally important for its wildlife and is protected under the Water Environment Regulationsⁱ and the Conservation of Habitats and Species Regulationsⁱⁱ as well as national protection for many parts of the coastline and their sea.ⁱⁱⁱ There are high levels of nitrogen and phosphorus input to this water environment with sound evidence that these nutrients are causing eutrophication at these designated sites. These nutrient inputs currently mostly come either from agricultural sources or from wastewater from existing housing and other development. The resulting dense mats of green algae and other effects on the marine ecology from an excessive presence of nutrients are impacting on the Solent's protected habitats and bird species.
- 1.2 There is uncertainty as to whether new growth will further deteriorate designated sites. This issue has been subject to detailed work commissioned by local planning authorities (LPAs) in association with Natural England, Environment Agency and water companies. This strategic work, which updates early studies, is on-going. Until this work is complete, the uncertainty remains and the potential for future housing developments across the Solent region to exacerbate these impacts creates a risk to their potential future conservation status.
- 1.3 One way to address this uncertainty is for new development to achieve nutrient neutrality. Nutrient neutrality is a means of ensuring that development does not add to existing nutrient burdens and this provides certainty that the whole of the scheme is deliverable in line with the requirements of the Conservation of Habitats and Species Regulations 2017 (as amended).
- 1.4 This report sets out a practical methodology to calculating how nutrient neutrality can be achieved. This methodology is based on best available scientific knowledge, and will be subject to revision as further evidence is obtained. It is our advice to local planning authorities to take a precautionary approach in line with existing legislation and case-law when addressing uncertainty and calculating nutrient budgets.
- 1.5 This report includes a brief summary of the planning and environmental context for this nutrient neutral approach, the detailed methodology and advice on mitigation. Further information and guidance is included in the annexes.

SECTION 2 PLANNING CONTEXT

- 2.1 The Partnership for Urban South Hampshire (PUSH), Natural England (NE), and Environment Agency (EA) have been jointly working to develop an Integrated Water Management Strategy (IWMS) since before 2008. This work examines the potential for the PUSH region to accommodate future housing growth without having a detrimental effect upon the water environment. A Water Quality Working Group has been set up to identify and analyse the existing evidence gaps and evaluate the need for strategic mitigation measures. A Water Quality Group including Natural England, Environment Agency and Chichester District Council have been working to identify solutions to water quality concerns in Chichester Harbour for at least 10 years. However, there is currently uncertainty as to whether there is sufficient capacity to accommodate the new housing growth.
- 2.2 Since March 2018, Natural England has been advising that one means of addressing this uncertainty for larger development (in excess of 200-300 houses), including all EIA development, is to calculate a nutrient budget and achieve nutrient neutrality.
- 2.3 During the summer of 2018, a review of the condition of designated sites water environment in the Solent harbours was undertaken (see next section). The best available up-to-date evidence has identified that some interest features at the designated sites, such as intertidal mudflat habitat and the wildlife they support are widely in unfavourable condition due to existing levels of nutrients and are therefore at risk from additional nutrient inputs.
- 2.4 It is Natural England's view that there is a likely significant effect on several internationally designated sites (Special Protection Areas, Special Areas of Conservation and Ramsar sites) due to the increase in wastewater from the new developments coming forward.
- 2.5 The uncertainty about the impact of new development on designated sites needs to be recognised for all development proposals that are subject to new planning permissions and have inevitable wastewater implications. These implications, and all other matters capable of having a significant effect on designated sites in the Solent, must be addressed in line with Regulation 63 of the Conservation of Habitats and Species Regulations 2017.
- 2.6 LPAs and applicants will be aware of CJEU decisions regarding the assessment of elements of a proposal aimed toward mitigating adverse effects on designated sites and the need for certainty that mitigating measures will achieve their aims. The achievement of nutrient neutrality, if scientifically and practically effective, is a means of ensuring that development does not add to existing nutrient burdens.
- 2.7 The Water Quality Working Groups draw together expertise from local planning authorities, Environment Agency, Natural England and the water companies to examine this uncertainty further and develop an approach that ensures that

development can progress in a timely manner whilst ensuring the requirements of the Habitats Regulations are met. Further information is included in Annex 1.

SECTION 3 ENVIRONMENTAL CONTEXT

- 3.1 In 2018 and 2019 Natural England undertook a number of condition assessments of the features of the designated international sites around the Solent (the Solent Maritime SAC, Chichester and Langstone Harbours SPA, Portsmouth Harbour SPA, Solent and Southampton Water SPA) as well as the nationally designated SSSIs that underpin these international designations. An account of the outcome of these assessments, together the evidence used to support the conclusions, is given in Annex 2 with a brief summary below. Annex 2 also includes information on the Solent and Dorset Coast SPA and the Solent and Isle of Wight Lagoons SAC.

Solent Maritime SAC

- 3.2 For the Solent Maritime SAC the condition assessments completed considered the SAC features across the site as a whole and found the condition of these features - estuary, mudflat & sandflats, sandbanks – to be unfavourable. The unfavourable assessment is based on a number of attributes failing, including the nutrient water quality attribute. Other attributes were also found to be failing, such as, for seagrasses, their extent, distribution, rhizome structure and reproduction as well as biomass, and for the intertidal mud and sand features their infaunal quality. These failures are considered to be in part due to impacts from elevated nutrients.
- 3.3 Currently the site condition assessment does not include the saltmarsh feature which has not yet been assessed. However preliminary analysis of data shows that there was a loss of extent of saltmarsh across the Solent between 2008 and 2016.

Special Protection Areas and Ramsar sites (Solent and Southampton Water, Portsmouth Harbour and Chichester and Langstone Harbours)

- 3.4 Condition assessment for the SPAs and Ramsar sites have yet to be undertaken, but a number of bird features are declining as highlighted by recent Wetland Bird Survey alerts. A comparison with regional and national trends indicates that several of the declines are likely to be due to site specific reasons rather than reflecting wider national or regional population trends. While the cause of these site specific declines in the Solent area are largely unknown there are possible links to the elevated nutrient loading.

Sites of Special Scientific Interest (SSSI)

- 3.5 During 2018 and 2019, Natural England revised and updated the SSSI assessments in the greater Solent area in relation to the influence of the water environment on the condition of estuarine SSSI interest features that underpin the SAC and SPAs. These assessments especially included littoral sediment habitat (mudflat and other tidally

exposed sediment flats). The review of parts of the greater Solent area and some SSSI interest features is ongoing.

- 3.6 The SSSI interest feature assessments completed consider the concentrations of inorganic nitrogen status in each harbour and estuary, and evidence for ecological responses. Particular attention was given to records on phytoplankton abundance and the presence and abundance of opportunistic green macroalgae.
- 3.7 These SSSI assessments give a spatially more specific account of the condition of protected sites and details are given in Annex 2 with condition varying across different parts of the Solent. Overall some 81% of the total area assessed is in unfavourable condition. Breaking down this unfavourable area, 40% if it is classed as recovering condition, most of this being in Langstone Harbour but these units are considered 'at risk' of not recovering to a favourable situation as it is unclear whether the nutrient status will become adequate to substantially prevent the growth of dense macroalgae mats in parts of the Harbour.
- 3.8 In 2019 and 2020, a more detailed review of Chichester Harbour's intertidal features was undertaken of all the overlapping national and internationally designated features including saltmarsh, wintering and nesting birds. More than 3000 hectares of the harbour is in unfavourable declining condition. Reasons for feature declines are complex with many factors acting together, but water quality is one of the contributing causes to the observed declines.

SECTION 4 NUTRIENT NEUTRALITY APPROACH FOR NEW DEVELOPMENT

Introduction

- 4.1 Achieving nutrient neutrality is one way to address the existing uncertainty surrounding the impact of new development on designated sites. This practical methodology provides advice on how to calculate nutrient budgets and options for mitigation, should this be necessary.
- 4.2 There is evidence that inputs of both phosphorus and nitrogen influence eutrophication of the water environment. However, the principal nutrient that tends to drive eutrophication in the marine environment is nitrogen and this is supported by modelling and evidence. Please see Annex 2 for further details.
- 4.3 The best available evidence is for focus in the Solent harbours to be on nitrogen reduction, and reduction in both nitrogen and phosphorus in the Medina catchment. However, this approach may be refined if greater understanding of the eutrophication issue is gained by thorough new research or updated modelling.
- 4.4 The nutrient budget in this report calculates quantities of nitrogen (N) generated by development. This N comes in different forms and measured N concentrations vary according to exactly what is measured. These differences need to be recognised when calculating nutrient budgets. The key measurement is Total Nitrogen (TN), i.e. both organic and inorganic forms of nitrogen, because this is what is available for

plant growth. TN is the sum of the inorganic forms - nitrate-nitrogen ($\text{NO}_3\text{-N}$), nitrite-nitrogen ($\text{NO}_2\text{-N}$), ammoniacal - N - and organically bonded nitrogen.

- 4.5 For developments on the Isle of Wight that are impacting on the Medina estuary, both a phosphorus and nitrogen budget may be required. Natural England will work closely with the Isle of Wight Council and applicants to provide advice on a bespoke case-by-case basis.

Approach to calculating nutrient budgets

- 4.6 For those developments that wish to pursue neutrality, Natural England advises that a nitrogen budget is calculated for new developments that have the potential to result in increases of nitrogen entering the international sites. A nutrient budget calculated according to this methodology and demonstrating nutrient neutrality is, in our view, able to provide sufficient and reasonable certainty that the development does not adversely affect the integrity, by means of impacts from nutrients, on the relevant internationally designated sites. This approach must be tested through the 'appropriate assessment' stage of the Habitats Regulations Assessment. The information provided by the applicant on the nutrient budget and any mitigation proposed will be used by the local planning authority, as competent authority, to make an appropriate assessment of the implications of the plan or project on the designated sites in question. Further information of this process is available [here](#).
- 4.7 The nutrient neutrality calculation includes key inputs and assumptions that are based on the best-available scientific evidence and research. It has been developed as a pragmatic tool. However, for each input there is a degree of uncertainty. For example, there is uncertainty associated with predicting occupancy levels and water use for each household in perpetuity. Also, identifying current land / farm types and the associated nutrient inputs is based on best-available evidence, research and professional judgement and is again subject to a degree of uncertainty.
- 4.8 It is our advice to local planning authorities to take a precautionary approach in line with existing legislation and case-law when addressing uncertainty and calculating nutrient budgets. This should be achieved by ensuring nutrient budget calculations apply precautionary rates to variables and adding a precautionary buffer to the TN calculated for developments. A precautionary approach to the calculations and solutions helps the local planning authority and applicants to demonstrate the certainty needed for their assessments.
- 4.9 By applying the nutrient neutrality methodology, with the precautionary buffer, to new development, the competent authority may be satisfied that, while margins of error will inevitably vary for each development, this approach will ensure that new development in combination will avoid significant increases of nitrogen load to enter the internationally designated sites.

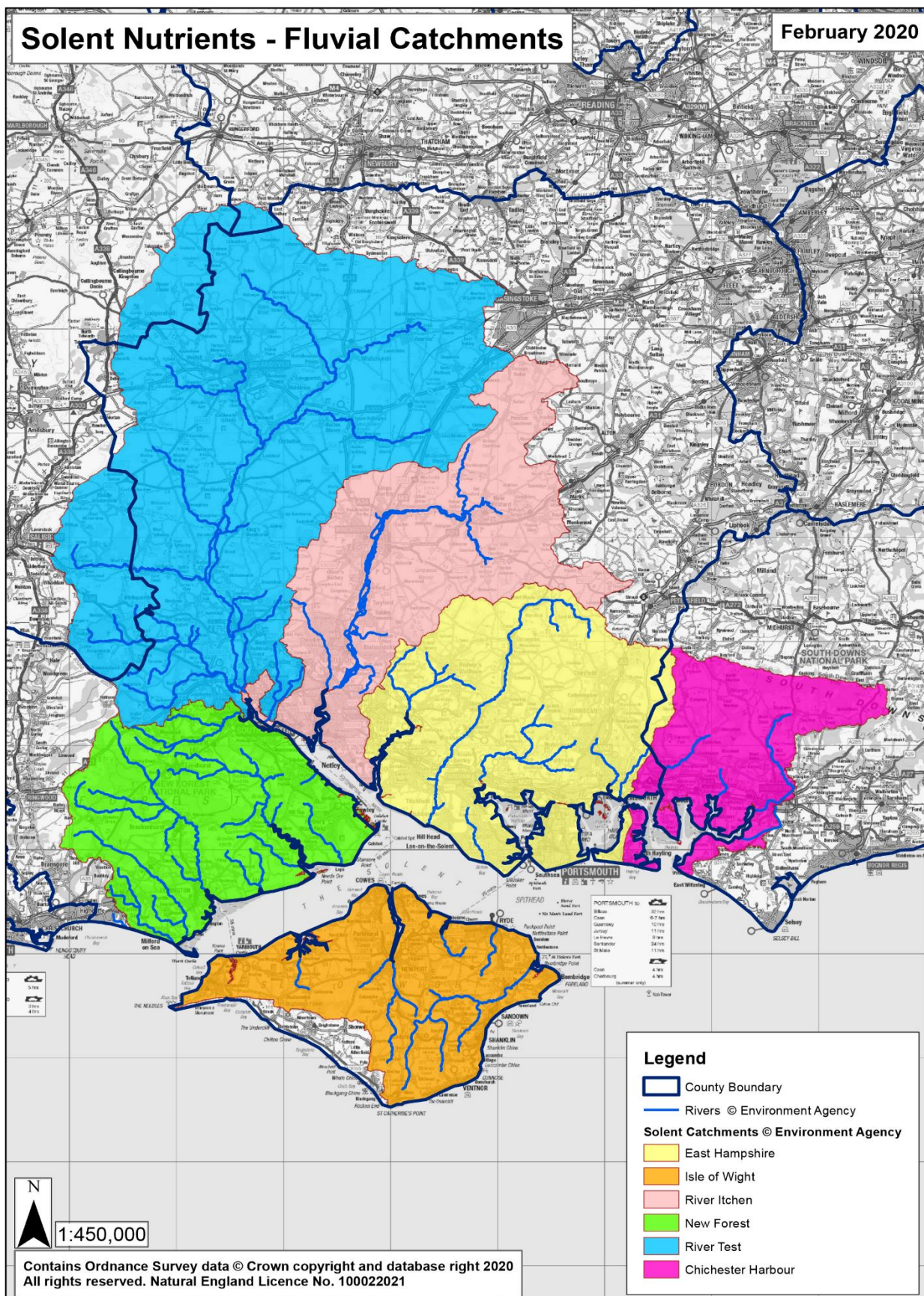
Location of development

- 4.10 The nutrient neutrality approach only applies to developments where the treated effluent discharges into any Solent international sites (Solent Maritime SAC, Solent and Southampton Water SPA and Ramsar, Portsmouth Harbour SPA and Ramsar, Chichester and Langstone Harbours SPA and Ramsar), or any water body (surface or groundwater) that subsequently discharges into such a site. The catchment area is shown on Figure 1.
- 4.11 This approach may be refined if greater understanding of the eutrophication issue is gained by thorough new research or updated modelling.

Type of development

- 4.12 This methodology is for all types of development that would result in a net increase in population served by a wastewater system, including new homes, student accommodation, tourism attractions and tourist accommodation. This development will have inevitable wastewater implications.
- 4.13 Other commercial development not involving overnight accommodation will generally not be included. It is assumed that anyone living in the catchment also works and uses facilities in the catchment, and therefore wastewater generated by that person can be calculated using the population increase from new homes and other accommodation. This removes the potential for double counting of human wastewater arising from different planning uses.
- 4.14 Tourism attractions and tourism accommodation are exceptions, as these land uses attract people into the catchment and generate additional wastewater and consequential nitrogen loading on the Solent. This includes self-service and serviced tourist accommodation such as hotels, guest houses, bed and breakfasts and self-catering holiday chalets and static caravan sites. Other applications will be considered on their individual merits, for example new cruise ship facilities etc.
- 4.15 There may be cases where planning applications for new commercial or industrial development or changes in agricultural practices could result in the release of additional nitrogen into the system. In these situations, a case-by-case approach will be adopted. Early discussions with Natural England via our chargeable services (DAS) are recommended.

Figure 1 Solent Catchment Area Contains public sector information licensed under the Open Government Licence v3.0



Methodology for nutrient budgets

- 4.16 The initial stage is to determine whether the development will drain to the mains network or to a non-mains facility e.g. an on-site package treatment plants.
- 4.17 The methodology for development that drains to the mains network is in Section A. Please go to Section B if the new development is not on the mains network.

Section A

Stage 1 Calculate Total Nitrogen (TN) in kilograms per annum derived from the development that would exit the Wastewater Treatment Works (WwTW) after treatment

Stage1 Step 1 Calculate additional population

- 4.18 New housing and overnight accommodation can increase the population as well as the housing stock within the catchment. This can cause an increase in nitrogen discharges. To determine the additional population that could arise from the proposed development, it is necessary that sufficiently evidenced occupancy rates are used. Natural England recommends that, as a starting point, local planning authorities should consider using the average national occupancy rate of 2.4, as calculated by the Office for National Statistics (ONS), as this can be consistently applied across all affected areas.
- 4.19 However competent authorities may choose to adopt bespoke calculations tailored to the area or scheme, rather than using national population or occupancy assumptions, where they are satisfied that there is sufficient evidence to support this approach. Conclusions that inform the use of a bespoke calculation need to be capable of removing all reasonable scientific doubt as to the effect of the proposed development on the international sites concerned, based on complete, precise and definitive findings. The competent authority will need to explain clearly why the approach taken is considered to be appropriate. Calculations for occupancy rates will need to be consistent with others used in relation to the scheme (e.g. for calculating open space requirements), unless there is a clear justification for them to differ.

Stage 1 Step 2 Confirm water use

- 4.20 Determine the water use / efficiency standard for the proposed development to be defined in the planning application and, where relevant, the Environmental Statement. The nitrogen load is calculated from the scale of water use and thus the highest water efficiency standards under the building regulations will minimise the increase in nitrogen from the development.
- 4.21 It is recommended that each Local Planning Authority impose a planning condition on all planning permissions for one or more net additional new dwellings requiring construction to the optional requirement^{iv} under G2 of the Building Regulations 2010.

- 4.22 A model condition is set out below:

“The dwellings shall not be occupied until the Building Regulations Optional requirement of a maximum water use of 110 litres per person per day has been complied with.”

- 4.23 The water use figure is a proxy for the amount of wastewater that is generated by a household. New residential development may be able to achieve tighter water use figures, with or without grey water recycling systems, and this approach is supported from a water resource perspective (for example in support of Southern Water’s Target 100 litres per person per day). However, the key measurement is the amount of wastewater generated by the development that flows to the wastewater treatment works.
- 4.24 If tighter water use restrictions are used in the nutrient calculation – with or without grey water recycling systems – these restrictions should reflect the wastewater expected to be generated over the lifetime of the development. There is a risk that when kitchen and bathroom fittings are changed by occupants over the years, less water-efficient models could be installed. It is Natural England’s view that it would be difficult to evidence and secure delivery of tighter restrictions at this time. However, if sound evidence can be provided, this will be considered on a case-by-case basis.
- 4.25 It is Natural England’s view that while new developments should be required to meet the 100 litres per person a day standard, the risk of standards slipping over time and the uncertainty inherent in the relationship between water use and sewage volume should be addressed by the use in the calculation of 110 litres per person per day figure.

Stage 1 Step 3 Confirm WwTW and permit level

- 4.26 Identify the Wastewater treatment works (WwTW) that the development will drain to and whether it has a TN permit.
- 4.27 For most planning applications, the WwTW provider is not confirmed until after planning permission is granted. The nutrient calculation should be based on the permit levels of the most likely WwTW. In any cases where the WwTW changes, a reassessment of the nutrient calculation will be required to ensure the development is nutrient neutral.

WwTWs with TN permit

- 4.28 Identify the permit concentration limit for Total Nitrogen at the proposed WwTW. If the WwTW will have a tightened permit concentration limit for Total Nitrogen under the company’s Water Industry Asset Management Plan by 2024 then use this tightened value. If a new WwTW is proposed, obtain a determination from the

Environment Agency on the permit limit for Total Nitrogen that would apply to the works and when they are likely to be built.

- 4.29 Where there is a permit limit for Total Nitrogen, the load calculation will use a worst case scenario that the WwTW operates at 90% of its permitted limit. A water company has the option of operating the works as close to the consent limit as practicable without breaching the consent limit. Natural England and the Environment Agency have agreed to take 90% of the consent concentration limit as the closest the water company can reasonably operate the works without risk of breaching the consent limit.

WwTWs without a TN permit

- 4.30 For developments that discharge to WwTWs with no TN permit limit, best available evidence must be used for the calculation. In the first instance, Southern Water or other wastewater provider should be contacted for details of the nitrogen effluent levels for the specific WwTW. Robust evidence may be available to derive a value for nitrogen in the wastewater stream based on the type of wastewater treatment at the works.
- 4.31 However, if this data is not available, a figure of 27mg/l can be used. This figure has been derived by Southern Water from nitrogen effluent concentrations at two WwTWs in the Solent area and this average figure may change if new evidence becomes available.
- 4.32 It is not possible to apply the 90% correction in these cases as these WwTWs are not regulated by a Total Nitrogen consent limit.

Relationship between TN and water use

- 4.33 For WwTWs with TN consents there is a direct relationship between TN and water use. For example, for WwTWs with a permit of 9 mg /l, it can be calculated that for each litre of water that passes through the works, 8.1mg (90% of 9 mg/l) of nitrogen could be released into the water environment. If a household uses 150 litres, this equates to 1215 mg of TN; if this is reduced to 100 litres, 810 mg of TN is released.
- 4.34 For WwTWs without a TN consent level, the relationship between water use and TN in the effluent is more complex, but applying the same methodology for nutrient neutrality is considered appropriate.
- 4.35 For these WwTWs, there is no guarantee that reductions in water use will lower TN discharges. These WwTWs are not regulated by the concentration of TN in each litre of effluent. Instead, the TN concentration could vary depending on the flow volume and concentration of TN coming into the WwTW. Growth in area will lead to more people which will increase the amount of nitrogen reaching a WwTWs and this could then change TN levels in the effluent. However, there is currently no clear correlation

between the TN concentration of the WwTW discharge and size of population served. It is therefore not considered necessary to correct for this factor. The processes at WwTWs and how nitrogen changes its form during treatment are complex, especially the interaction between different levels of nitrogen and carbon in the wastewater. Any error due to marginal increases in TN concentration with increases in population served by a particular WwTW will be covered by the precautionary 20% buffer.

- 4.36 Please note that due to this uncertainty the use of measures designed to reduce water consumption as a means of reducing TN are not appropriate in areas served by WwTWs without an N permit. This is likely to affect authorities with WwTWs that drain into rivers, as many of these WwTWs do not have TN permit limits currently.

Stage 1 Step 4 Calculate Total Nitrogen (TN) in Kg per annum that would exit the WwTW after treatment derived from the proposed development

- 4.37 The TN load is calculated by multiplying the water use of the proposed development by the appropriate concentration of TN after treatment at the WwTW.
- 4.38 An element of the TN within the wastewater coming from a household is from the drinking water supplied to that household. However, this forms a relatively small proportion (<10%) of this total. This has been calculated by using a nitrate-N concentration in drinking water of 8mg/l and a TN generated per person of 3.5kg/yr.
- 4.39 Moreover, in order for favourable condition for the Solent sites to be achieved it is necessary for there to be substantial reductions in ground and river water nitrogen concentrations. Since drinking water comes from these same sources these reductions will in turn affect TN concentrations in drinking water. It is therefore not appropriate to calculate TN budgets over the lifetime of the development based on the current elevated TN levels in drinking water. To do so would lock in a higher TN discharge from development that would offset the required improvements in TN levels in drinking water from changes in agricultural practice over time.
- 4.40 Notwithstanding the above, it is our advice that it is appropriate to discount an amount of N that would be present in groundwater and river water if they were in a more natural condition. Peer review research indicates that the mean natural river concentration would have been below 0.45 mg/l nitrate-nitrogen^v. Evidence also suggests that a nitrate concentration in rivers of c2 mg/l equates to the average concentrations in rivers before the 1960s, prior to the dramatic increase in N concentrations during the subsequent decades^{vi}. This nitrate concentrations corresponds well with emerging evidence from the Poole Harbour catchment where it is considered that restoration to a favourable conservation status would require a nitrogen load below 1000 tonnes of TN per year landward input. To achieve this, average TN levels in river water in the Poole Harbour catchment would need to be <c2.75 mg/l TN.

- 4.41 The total annual nitrogen load reductions necessary to achieve a favourable conservation status for the international sites within the greater Solent area have yet to be determined. However, for the purpose of the methodology, a river and groundwater TN concentration of 2 mg/l is considered at this stage to be likely to meet the restoration objectives for the Solent international sites. We therefore recommend that a discounted figure of 2 mg/l is used to reflect the amount of N that would otherwise be present in river and groundwater.
- 4.42 Natural reductions in nitrogen concentrations, mainly through de-nitrification processes, also occur within watercourses. The scale of de-nitrification is complex and dependent on a number of variables, including the characteristics of the water channels, season, water flows, N concentrations, and uptake by plant communities, etc. Insufficient evidence is currently available to properly evaluate de-nitrification rates within the greater Solent catchments and therefore this factor has not been included within the current methodology. Nevertheless natural de-nitrification processes, particularly for discharges in the upper Solent catchment, provide an additional precautionary factor for the methodology.

Worked example of a nutrient budget calculation for discharge to a WwTW using methodology.

- 4.43 The following worked example calculates the Total Nitrogen load of a development of 1000 dwellings based on a WwTW with a consent limit for Total Nitrogen of 9 mg/l.
- 4.44 Where residential developments also include other overnight accommodation such as tourist accommodation and attractions, the associated water use from these additional land uses will need to be included in the calculation. These rates should be based on empirical evidence from similar developments or published literature and will be assessed on a case by case basis.

Table 1 – Calculating wastewater Total Nitrogen load from proposed development

STAGE 1 - WORKED EXAMPLE TO CALCULATE TOTAL NITROGEN (TN) LOAD FROM DEVELOPMENT WASTEWATER				
Step	Measurement	Value	Unit	Explanation
Development proposal	Development types that would increase the population served by a wastewater system	1000	Residential dwellings	
Step 1	Additional population	2400	Persons	Uses an average household size of 2.4 x 1000 dwgs (greenfield site).
Step 2	Wastewater volume generated by development	264,000	litres/day	2400 persons (step 1) x 110 litres. Where relevant, deduct wastewater volume of population displaced by the proposed development.
Step 3	Receiving WwTW environmental TN permit limit. Assume discharge to be at 90% of consent limit.	8.1	mg/l TN	90% of the consent limit = 8.1 mg/l TN.
Step 4	Deduct acceptable TN loading (@ 2 mg/l TN) (as defined in paragraph 4.40)	6.1	mg/l TN	8.1 (step 3) – 2 mg/l TN
Step 5	TN discharged after WwTW treatment	1,610,400	mg/TN/day	264000 (step 2) x 6.1 (step 4) =1,610,400
Step 6	Convert mg/TN to kg/TN per day	1.6104	Kg/TN/day	Divide by 1,000,000
Step 7	Convert kg/TN per day to kg/TN per year	587.8	Kg/TN/yr	1.6104 x 365 days
Wastewater total nitrogen load	587.8 kg/TN/yr			

Stage 2 *Adjust nitrogen load to account for existing nitrogen from current land use*

- 4.45 This next stage is to calculate the existing nitrogen losses from the current land use within the redline boundary of the scheme. The nitrogen loss from the current land use will be removed and replaced by that from the proposed development land use. The net change in land use will need to be subtracted from or added to the wastewater Total Nitrogen load.
- 4.46 Nitrogen–nitrate loss from agricultural land can be modelled using the Farmscoper model. A study commissioned by Natural England from ADAS modelled this loss for different farm types across the river catchments that drain to the Solent (ADAS UK Ltd. 2015. Solent Harbours Nitrogen Management Investigation).
- 4.47 If the development area covers agricultural land that clearly falls within a particular farm type used by the Farmscoper model then the modelled average nitrate-nitrogen loss from this farm type should be used. The farm types used in the ADAS model are set out in Table 2, with the nitrate-nitrogen loss. Further details on farm classification are included in Appendix 1.

Table 2 Farm types and average nitrogen-nitrate loss

AVERAGE NITRATE-NITROGEN LOSS PER FARM TYPE IN THE SOLENT CATCHMENT AREA (kg/ha)	
Cereals	31.2
Dairy	36.2
General Cropping	25.4
Horticulture	29.2
Pig	70.4
Lowland Grazing	13.0
Mixed	28.3
Poultry	70.7
Average for catchment area	26.9

- 4.48 If the proposed development area covers several or indeterminate farm types then the average nitrate-nitrogen loss across all farmland may be more appropriate to use. The average figure is also included in Table 2.
- 4.49 The figures in the ADAS report are based on 2010 land use data and may be updated from time-to-time as land use and agricultural practice to control nitrate loss changes.
- 4.50 For maize farms, it is recommended that the general cropping nitrogen leaching rate is used in the calculation. For sites that are in use as allotments, it is recommended

that the most appropriate farm type for allotments is the average rate of 26.9 kg/ha/yr. For sites that are currently in use as horse paddocks, it is recommended that the lowland grazing figure should be used in the calculation.

- 4.51 It is important that farm type classification is appropriately precautionary. It is recommended that evidence is provided of the farm type for the last 10 years and professional judgement is used as to what the land would revert to in the absence of a planning application. In many cases, the local planning authority, as competent authority, will have appropriate knowledge of existing land uses to help inform this process.
- 4.52 There may be areas of a greenfield development site that are not currently in agricultural use and have not been used as such for the last 10 years. In these areas as there is no agricultural input into the land a baseline nitrogen leaching value of 5 kg/ha should be used. This figure covers nitrogen loading from atmospheric deposition, pet waste and nitrogen fixing legumes.
- 4.53 Where development sites include wildlife areas, woodlands, hedgerows, ponds and lakes that are to be retained, these areas can either be excluded from the calculation as there will be no change in nitrogen input onto this land, or included with the same nitrogen leaching rate in stage 2 and 3. This approach assumes that if they are adopted as green infrastructure or a wildlife area in the new development, appropriate management can be secured with any planning permission (see next section) to restrict nitrogen loading.
- 4.54 A similar approach can also be taken for the redevelopment of urban land as the nitrogen leaching rate would be 14.3 kg/ha in stage 2 and 14.3 kg/ha in stage 3. If there is no change in site area, these areas can be excluded from the calculation.
- 4.55 For sites, where existing land use is not confirmed, it is Natural England's advice to local planning authorities and applicants to take a precautionary approach in line with existing legislation and case-law.
- 4.56 Please note if evidence can be provided to support an alternative nitrogen figures for any existing land use, then this information will be reviewed by the local planning authority and Natural England.
- 4.57 A worked example to calculate the nitrogen load from existing land use is set out in Table 3.

Table 3 Calculating nitrogen load from current land use

STAGE 2 - WORKED EXAMPLE TO CALCULATE NITROGEN LOAD FROM CURRENT LAND USE				
Step	Measurement	Value	Unit	Explanation
1	Total area of existing agricultural land	40	Hectares	This is the area of agricultural land that will be lost due to development
2	Identify farm type and confirm nitrate loss.	26.9	Kg/ha/yr	The developable area covers several farm types therefore an average has been used. Reference Appendix 1 and Table 2
3	Multiply area by nitrate loss	1,076	Kg/N/yr	40 ha x 26.9 kg/N/yr
Nitrogen load from current land use	1,076 Kg/N/yr			

Stage 3 *Adjust nitrogen load to account for land uses with the proposed development*

- 4.58 The last stage is to add in the nitrogen load that will result from the new development that is not received by a WwTW. This includes the nitrogen load from the new urban development and from the new open space including any Suitable Alternative Natural Greenspace (SANG), Nature Reserves, or Bird Refuge Areas as identified within the redline boundary of the scheme.
- 4.59 The calculation only includes the areas of the site where there will be a change in land use, for example from agricultural land to new urban development or agricultural land to Suitable Alternative Natural Greenspace (SANG) / open space. Where there is no proposed change to land use, this land should be excluded from the nitrogen budget as there will be no change to the nitrogen load from this area.
- 4.60 A worked example is shown in the table below. This is based on a developable area of 38 hectares covering land in a mix of farm types with the removal of 2 hectares of agricultural land to create SANG.

Urban development

- 4.61 The nitrogen load from the new urban development results from sewer overflows and from drainage that picks up nitrogen sources on the urban land. Urban development includes the built form, gardens, road verges and small areas of open space within

the urban fabric. These nitrogen sources include atmospheric deposition, pet waste, fertilisation of lawns and gardens and inputs to surface water sewers. The nitrogen leaching from urban land equates to 14.3 kg/ha/yr^{vii}. Appendix 2 sets out the scientific research and literature in relation to this figure.

Open Space and Green Infrastructure

- 4.62 Nitrogen loss draining from new designated open space or Suitable Alternative Natural Greenspace (SANG) should also be included. The nitrogen leaching from this land is likely to equate to 5 kg/ha/yr. Appendix 3 sets out the scientific research and literature in relation to this figure. This figure can also be used where new nature reserves or bird refuge areas are created and for new woodland planting areas.
- 4.63 The competent authority will need to be assured for that this open space will be managed as such and there will be no additional inputs of nutrients or fertilisers onto this land for the duration of the development. Appropriate conditions or other legal measures may be necessary to ensure it will not revert back to agricultural use, or change to alternative uses that affect nutrient inputs in the long term. It is therefore recommended that the 5 kg/ha/yr rate applies to areas of designated open space on-site of around 0.5 hectares and above. These sites will also need long term management to ensure the provision of dog bins and that these are regularly emptied.
- 4.64 Small areas of open space within the urban fabric, such as road verges, gardens, children's play areas and other small amenity areas, should not be included within this category. The urban development figure is appropriate for these land uses.

Community food growing provision

- 4.65 For any areas of the site that are proposed for community food growing provision such as allotments, it is recommended that the average farm type rate is used (26.9 kg/ha/yr).

Table 4 – Adjust nitrogen load to account for future land uses

STAGE 3 - WORKED EXAMPLE TO CALCULATE NITROGEN LOAD FROM FUTURE LAND USES				
Step	Measurement	Value	Unit	Explanation
1	New urban area	38	Hectares	Area of development that will change from agricultural land to urban land use
2	Nitrogen load from future urban area	543.4	Kg/N/yr	38 ha x 14.3 Kg/N/yr
3	New SANG / open space	2	Hectares	Area of development that will change from agricultural land to SANG / open space
4	Nitrogen load from SANG / open space	10	Kg/N/yr	2 ha x 5.0 Kg/N/yr
5	Combine nitrogen load from future land uses	553.4	Kg/N/yr	543.4 Kg/N/yr + 10 Kg/N/yr
Nitrogen load - future land uses	553.4 Kg/N/yr			

Stage 4 *Calculate the net change in the Total Nitrogen load that would result from the development*

- 4.66 The last stage is to calculate the net change in the Total Nitrogen load to the Solent catchment with the proposed development. This is derived by calculating the difference between the Total Nitrogen load calculated for the proposed development (wastewater, urban area, open space etc) and that for the existing land uses.
- 4.67 It is necessary to recognise that all the figures used in the calculation are based on scientific research, evidence and modelled catchments. These figures are the best available evidence but it is important that a precautionary buffer is used that recognises the uncertainty with these figures and in our view ensures the approach prevents, with reasonable certainty, that there will be no adverse effect on site integrity. Natural England therefore recommends that a 20% precautionary buffer is built into the calculation.
- 4.68 There may be instances where it is the view of the competent authority that an alternative precautionary buffer should be used on a site-specific basis where sufficient evidence allows the legal tests to be met.

4.69 Table 5 sets out a worked example.

Table 5 Nitrogen Load Budget

STAGE 4 - WORKED EXAMPLE TO CALCULATE THE NET CHANGE IN NITROGEN LOAD FROM THE DEVELOPMENT				
Step	Measurement	Value	Unit	Explanation
1	Identify nitrogen load from wastewater (stage 1)	587.8	Kg/TN/yr	See Table 1
2	Calculate the net change in nitrogen from land use change - subtract existing land uses nitrogen load (stage 2) from future land uses nitrogen load (stage 3)	-522.6	Kg/TN/yr	553.4 (stage 3) - 1076 (stage 2) = -522.6 Kg/TN/yr
3	Determine nitrogen budget – the Total Nitrogen wastewater load for the proposed development plus the change in nitrogen load from land use change (the latter figure may be positive i.e. the change in land use will generate more nitrogen, or negative i.e. the change in land use will generate less Nitrogen)	65.2	Kg/TN/yr	587.8 (step 1) + -522.6 (step 2) = 65.2 Kg/TN/yr
4	Where TN budget is positive add 20% precautionary buffer	78.24	Kg/TN /yr	64.8 + 20% = 78.24
Total Nitrogen that needs to be neutralised	78.24 Kg/TN /yr			

Section B

Methodology for calculating TN budgets for package treatment plants (PTPs)

- 4.70 The Environment Agency has a presumption against private sewage treatment works in sewered areas and will always seek connection to the mains sewer where possible and practicable. A principle concern relates to the failure rates of PTPs and the lack of review and periodic upgrades via regulatory systems that apply to mains. There will be site specific factors (e.g. in proximity to watercourses, soil saturation levels, etc.) that would need to be considered when evaluating this risk.
- 4.71 Further advice from the Environmental Agency on the use of PTP may be found at - <https://www.gov.uk/guidance/discharges-to-surface-water-and-groundwater-environmental-permits>. Additional guidance may also be available via local planning authorities. For example, Chichester District Council has adopted a supplementary planning document for surface and foul drainage - <https://www.chichester.gov.uk/article/29757/Supplementary-planning-documents-and-policy-guidance>.
- 4.72 Where development are proposing to use package treatment plants, or similar, it is recommended that the TN level is calculated on a per person basis. On average each person produces sewage containing 0.0035 tonnes of nitrogen per year (3.5 kilograms)^{viii}. The TN prior to treatment = number of additional population x 3.5 Kg = Kg/TN/yr.
- 4.73 The percentage reduction of TN that may be applied as result of treatment will depend on the efficiency of the treatment processes employed and must be assessed on a case by case basis. NB The evidence supporting the efficiency of PTPs should include the test result documents from the lab (in English) and/or measured effluent concentrations from real world applications, not just the covering certificate. Information will also need to be provided on the long term monitoring and management of these installations and this will need to be secured.
- 4.74 Bespoke calculations of the TN load may be possible for larger PTPs in instances where robust evidence of the performance of the system in removing nitrogen is provided. In addition to the above, the evidence will need to include, as a minimum, a full year of operation and supporting information to ensure that the concentration of total nitrogen within the effluent can be reliably predicted. In these cases, early consultation with Natural England, through our charged advice service, and the competent authority is recommended.
- 4.75 Table 6 sets out a worked example for Stage 1. Stages 2, 3 and 4 of the above methodology can then be applied.

Table 6 Alternative Stage 1 methodology for package treatment plants (PTPs)

STAGE 1 - WORKED EXAMPLE TO CALCULATE TOTAL NITROGEN (TN) LOAD FROM DEVELOPMENT WASTEWATER WITH AN ONSITE PTP (prior to treatment)				
Step	Measurement	Value	Unit	Explanation
Development proposal	Development types that would increase the population served by a wastewater system	100	Residential dwellings	
Step 1	Additional population	240	Persons	Based on average household size of 2.4
Step 2	TN prior to treatment Based on 3.5 Kg TN per person per year	840	Kg TN /yr	240 (step 1) x 3.5 Kg TN per person per yr
Step 3	Receiving PTP TN reduction efficiency	70	%	Efficiency of PTP used must be evidenced.
Step 4	TN discharged after PTP treatment	252	Kg TN /yr	30% of 840
Step 5	Acceptable N loading (as defined in paragraph 4.40) Based on 110 l per day per person	52,800	mg TN /day	Total waste water from development (110l x 240 persons) x Acceptable N loading of 2 mg/l
Step 6	Convert acceptable TN loading to TN Kg / Yr	19.3	Kg TN / Yr	Divide by 1000000 x by 365 days
Step 7	TN discharged - acceptable N loading (@ 2 mg/l)	232.7	Kg TN / Yr	252 (step 4) – 19.3 (step 6)
PTP Total Nitrogen Load	232.7 Kg TN / Yr			

SECTION 5 MITIGATION

Introduction

- 5.1 If there is a nitrogen surplus from the WwTW discharge (a positive figure), then mitigation is required to achieve nitrogen neutrality. If the calculation identifies a deficit (a negative figure), no mitigation is required. In the worked example set out in Table 5, the nitrogen budget with 20% buffer is 77.8 Kg/TN/yr. Nitrogen neutrality would therefore require appropriate mitigation measures that would remove a minimum of 77.8 Kg/TN/yr.
- 5.2 Mitigation can be 'direct' through upgrading sewage treatment works and through alternative measures, e.g. interceptor wetlands; or 'indirect' by taking land out of high nitrogen uses, e.g. crops or intensive livestock systems that result in an excess of nitrogen lost to the water environment.
- 5.3 The purpose of the mitigation measures is to avoid impacts to the designated sites, rather than compensating for the impacts once they have occurred. Avoiding impacts is achieved by neutralising the additional nutrient burden that will arise from the proposed development, achieving a net zero change at the designated sites in a timely manner.
- 5.4 To ensure it is effective mitigation, any scheme for neutralising nitrogen must be certain at the time of appropriate assessment so that no reasonable scientific doubt remains as to the effects of the development on the international sites. This will need consideration of the delivery of mitigation, its enforceability and the need for securing the adopted measures for the duration of the development's effects, generally 80-125 years.
- 5.5 Schemes that are being delivered by other sectors (for example water industry and agricultural sector) for the purpose of meeting the necessary conservation measures designed for the international sites and to take appropriate steps to avoid the deterioration of the international sites should not also be used as mitigation for plans and projects, as this would compromise the original purpose and would be unlikely to meet the legal tests of the Habitats Regulations.
- 5.6 Further information has been included in this section on recommended mitigation measures. Each mitigation scheme will be assessed on its own merits and on a case by case basis, based on the submitted evidence. We recommend applicants to discuss options with local planning authorities and Natural England through our [charged advice service](#), at the earliest opportunity. However, it is ultimately the decision of the local planning authorities, as competent authorities, to determine the suitability of the proposed mitigation scheme in line with the legal tests in the Habitats Regulations.

Types of mitigation

Conversion of agricultural land for community and wildlife benefits

- 5.7 Permanent land use change by converting agricultural land with higher nitrogen loading to alternative uses with lower nitrogen loading, such as for local communities, wildlife, and under schemes for flood management or to deliver the UK Government's Net Zero greenhouse gas emissions target by 2050^{ix}, is one way of neutralising nutrient burdens from development. It is important to retain the best and most versatile agricultural land in food production, particularly food crop production. However, there are a number of reasons to support conversion of agricultural land where the land is less economic to farm. There may also be a wide range of incidental benefits for the local community and wildlife from this change, as well as delivery of wider planning policy objectives and climate emergency pledges.

On-site options

- 5.8 One option is to increase the size of the SANGs and Open Space provision for the development on agricultural land that reduces the nitrogen loss from this source. This can be secured as designated open space or by other legal mechanisms.

Off-site options

- 5.9 Another option is to acquire, or support others in acquiring, agricultural land elsewhere within an appropriate river catchment area. By changing the land use in perpetuity (e.g. to woodland, heathland, saltmarsh, wetland or conservation grassland), this reduces the nitrogen loss from this source.
- 5.10 Mitigation land should be appropriately secured to ensure that at the time of appropriate assessment it is certain that the benefits will be delivered in the long term. Natural England advises that this can be achieved through an appropriate change of ownership to a local planning authority or non-government organisation. However, it is recognised that there may be other legal mechanisms available to the competent authority to ensure deliverability and enforceability of a mitigation proposal. These can be considered on a case by case basis.
- 5.11 Small scale developments are encouraged to consider opportunities for providing local small scale mitigation measures that deliver multiple benefits. Possible options include the creation of local ponds, wetlands, local nature reserves, community orchards (without nitrogen inputs), or copse. Another example is to turn a strip (in excess of 10m width) of agricultural land immediately adjacent to a public footpath into a greenway. This could be demarcated by hedges or woodland planting for both public and wildlife benefits.

Woodland planting

- 5.12 Woodland planting on agricultural land is a means of securing permanent land use change without necessitating land purchase. It can be evidenced easily by aerial photography and site visits. The level of woodland planting required to achieve nutrient neutrality is 20% canopy cover at maturity. In very broad terms, this equates to 100 trees per hectare, although this is dependent on the type of trees planted and there are also options that this can be achieved by natural regeneration, especially if adjacent to existing native woodland. It is our preference that native broadleaf species are selected where possible, to secure wider biodiversity gains. A nitrogen leaching rate from woodland planting is likely to equate to 5 kg/ha/yr.
- 5.13 In a relatively short time, the woodland planting would require a felling licence and woodland removal would also be covered by the EIA Regulations where woodland is planted as mitigation for internationally designated sites. There are therefore a number of layers of security for the competent authorities to ensure this mitigation is being delivered effectively. Planted woodland does require management for the first decade in terms of plug fencing and maintenance until the canopy has reached above browsing height, thereafter management is relatively minimal though some thinning is preferable to enable mature trees to develop.
- 5.14 Woodland planting would secure carbon capture, biodiversity and recreational benefits. The established woodlands could also be used for wood fuel production or coppice timber production.

Wetlands

- 5.15 Wetlands receiving nitrogen-rich water can remove a proportion of this nitrogen through processes such as denitrification and sedimentation. Wetlands can be designed as part of a sustainable urban drainage (SUDs) system, taking urban runoff/stormwater; discharges from STWs can be routed through wetlands; or the flow, or part of the flow, of existing streams or rivers can be diverted through wetlands. Wetlands deliver incidental wildlife and biodiversity benefits, with possible drainage and flood defence benefits (by reducing risk of harm from natural hazards).
- 5.16 It is essential that wetlands and SUDs are maintained to provide ongoing nutrient removal. Provisions for resourcing the ongoing maintenance of SUDs will need to be secured with any planning permission. Further information on the potential for nitrogen mitigation using wetlands is included in Appendix 4.

Wastewater Treatment Work Upgrades

- 5.17 Mitigation options at WwTWs include the agreement with the wastewater treatment provider that they will maintain an increase in nitrogen removal at the WwTW. This may include either upgrades to infrastructure (long term), or where the existing WwTW infrastructure has capacity an agreement to operate the WwTW at a higher standard than required by the discharge consent. Natural England, Environment

Agency, Local Planning Authorities and water companies are working together to explore these options.

- 5.18 There may also be opportunities to progress a wetland at a WwTWs, at the final stage of the process, once the permit consents have been met. It is possible to discharge the WwTWs outfall through wetlands, prior to release into the wider environment. Further details of this option is included in Appendix 4.

Size of mitigation land

- 5.19 The mitigation land must be sufficient to ensure the legal tests in the Habitats Regulations can be met.
- 5.20 Larger schemes create more opportunities for other sources of funding. Land that is taken out of agriculture for nutrient mitigation could also qualify for additional funding for future management to meet other legislative and policy requirements. For example, with additional management and infrastructure, this land may qualify as Suitable Alternative Natural Greenspace to relieve recreational pressure on international designated sites or, alternatively, to deliver a strategic bird reserves in line with Solent Waders and Brent Goose Strategy. Furthermore, larger schemes have the potential to deliver wider community and biodiversity benefits and these options should be encouraged where possible.
- 5.21 Smaller schemes will also be acceptable where the legal tests in the Habitats Regulations are met so there is certainty around these measures, for example, their deliverability, enforceability and long term use

Location of mitigation

- 5.22 The location of the mitigation site will also influence the effectiveness of the measure. The appropriate location for mitigation land firstly depends on the catchment of the development and location of the WwTWs outfall. Consideration then needs to be given to site specific factors such as geology, hydrology and topography.

Identifying the catchment for mitigation land

- 5.23 The fluvial catchment for the Solent internationally designated sites is shown on Figure 1. Figures 2 – 7 show the catchment area at a larger scale^x.
- 5.24 A key objective is to ensure mitigation land is situated in the most effective location. In order to achieve this, it may be appropriate to establish mitigation land in a number of locations or catchments. For example, for some of the coastal WwTWs, there is a widespread distribution of output to a number of designated sites within the Solent. Therefore a number of catchments would be appropriate locations for mitigation land. This view is based on modelling that has been undertaken by the Environment Agency and analysed by water quality specialists within Natural England in relation to the internationally designated sites. The modelling identifies the relative contributions

of all nitrogen sources within the harbours and estuaries of the Solent and is the best available scientific evidence available^{xi}.

- 5.25 The following recommendations can generally be applied to determine the suitability of the mitigation location. These recommendations are based on spatial principles and temporal principles

Spatial principles

- 5.26 It is Natural England's view that mitigation land within the same catchment as the development location is appropriate.

River catchments

- 5.27 For WwTWs that drain into the rivers, it is appropriate for the mitigation land to be within the same river catchment as the outfall location. This is the preferred solution in all cases. If this is not possible, mitigation in close alternative catchments would be appropriate in the following cases.

River Test and River Itchen

- 5.28 It is appropriate for the River Test and River Itchen catchment to be considered as one catchment. Therefore development located in the River Test catchment could be mitigated in the River Itchen catchment and *vice versa*.

Bartley Water

- 5.29 It is also appropriate for development within the Bartley Water catchment (New Forest) to be included with the Test and Itchen catchment. This is due to the close proximity of the outfalls within Southampton Water and the tidal flows between these estuaries.

New Forest Rivers

- 5.30 It is appropriate for the New Forest rivers that outfall to the southern coast of the New Forest to be considered as one catchment – River Beaulieu, River Lymington, Danes Stream, Dark Water, Sowley Stream and the coastal areas.

River Meon

- 5.31 For development that outfalls to the River Meon, it would be appropriate to mitigate within the River Hamble catchment and within the Portsmouth Harbour catchment.

River Hamble

- 5.32 For development that drains to ground within the River Hamble catchment or to a WwTWs that drains to the River Hamble, eg Bishops Waltham WwTW, mitigation land is limited to within the River Hamble catchment.

Isle of Wight Rivers

- 5.33 For development that drains to ground within the catchment of or direct to the each of the Isle of Wight rivers, eg Eastern Yar, mitigation land is limited to within the same river catchment.

Portsmouth Harbour, Langstone Harbour and Chichester Harbour

- 5.34 For the WwTWs that drains to each harbour (Portsmouth Harbour, Langstone Harbour and Chichester Harbour), priority locations for mitigation are the same river catchment as the WwTW outfall.
- 5.35 For example, the Bosham WwTW outfalls at the base of Bosham and Fishbourne Channels within Chichester Harbour. The most effective location for mitigation is within the same catchment as these arms of Chichester Harbour.
- 5.36 In some cases there may be opportunities to mitigate within other river catchments within the harbours. These will be examined on a case by case basis and we advise early consultation with Natural England and the local planning authority.

Coastal WwTWs

- 5.37 For development that drains to coastal WwTW (Portswood WwTW, Woolston WwTW, Millbrook WwTW) within the northern part of Southampton Water, mitigation is appropriate in the following catchments – River Test, River Itchen, Bartley Water.
- 5.38 For development that drains to other coastal WwTWs in Southampton Water eg Ashlett Creek WwTW, mitigation is appropriate in the following catchments - River Test, River Itchen, River Meon, River Hamble, eastern catchments of the New Forest.
- 5.39 For development that drains to Peel Common WwTW, mitigation is appropriate in the following catchments – River Meon, Portsmouth Harbour, Medina Estuary, Wootton Creek, Newtown Harbour, Langstone Harbour.
- 5.40 For development that drains to Budds Farm WwTW, mitigation is appropriate in the following catchments – River Meon, Portsmouth Harbour, Langstone Harbour, Chichester Harbour, Wootton Creek, Medina Estuary (and the estuaries in between).
- 5.41 For development that drains to Pennington WwTW, mitigation is appropriate in the following catchments, south coast of New Forest, Western Yar, Newtown Harbour

Drain to ground

- 5.42 For developments that drain to ground via a package treatment plant (PTP) or mains WwTWs, it is appropriate for mitigation land to be within the same catchment as the outfall location of the PTP or WwTW.

Temporal principles

- 5.43 Within chalk geology where the nitrogen discharge is to ground and remote from watercourses there is likely to be a considerable delay (it may take up to 1 year for ground water discharges to percolate through a meter of chalk) before the nitrogen discharged reaches the international designated sites. In such circumstances mitigation measures that take effect quickly may not need to be implemented immediately. We advise that these issues are examined on a case by case basis in consultation with the relevant local planning authority or authorities and Natural England.

Identifying optimal locations for mitigation

- 5.44 Any discharge from a development that is directed to a WwTW that outfalls to the estuaries and harbours has the potential to reach the designated sites in a matter of hours or tide cycle. It is therefore important for any mitigation sites to be located in the most optimal locations. Sites that are downstream of the WwTWs and upstream of the designated sites are ideally located to reduce the nutrient load reaching the designated sites.
- 5.45 It is our preference that mitigation sites are prioritised within the lower fluvial catchment and in close proximity to water courses that drain into the Solent estuaries and harbours. Sites that are located on tertiary geology or clay are preferred or sites that are located on the break of slope onto chalk bedrock. These sites reduce the time lag between the nutrient benefits of changes to land use within the catchment and the benefits to the designated sites.
- 5.46 For sites located on the upper fluvial catchment of the Solent on the chalk bedrock, without any water course in close proximity, there may be a time lag for consideration. It is our advice that the depth of the chalk groundwater is considered. For sites where the groundwater is more than 5m below ground level, then this land is unlikely to be appropriate for mitigation for short term development. Although it may be appropriate for development that is phased over more than 5 years, provided the mitigation land is delivered straightaway.
- 5.47 There may be sites where there is evidence of a short time lag between nutrient reduction at the mitigation site and the designated sites, or where the mitigation site is located on a geology or in an area that will result in additional benefits for nutrient removal, over and above the change in land use at the site itself. These options will be considered on a case by case basis.

Strategic Solutions

- 5.48 It is appreciated that achieving nutrient neutrality may be difficult for smaller developments, developments on brownfield land, or developments that are well-progressed in the planning system. Natural England is working closely with local planning authorities to progress Borough /District/ City/ Authority wide and more

strategic options that achieve nutrient neutrality and enable this scale of development to come forward.

- 5.49 A number of options are coming forward. It is recommended that discussions are held with the relevant local planning authorities with regard to these options. Further information will be available on the [Partnership for South Hampshire website and Chichester District Council website](#) in due course.
- 5.50 Natural England can provide further advice on the methodology and mitigation options through our [chargeable services](#) (DAS).

ⁱ The Water Environment (Water Framework Directive) (England and Wales) Regulations 2017

ⁱⁱ Conservation of Habitats and Species Regulations (England and Wales) Regulations 2017 (as amended)

ⁱⁱⁱ Including Wildlife and countryside Act 1981 as amended, Countryside and Rights of Way Act 2000, Marine and Coastal Access Act 2009, Natural Environment and Rural Communities Act 2006

^{iv} The optional requirement referred to in G2 requires installation and fittings and fixed appliances for the consumption of water at 110 litres per person per day.

^v Desmit, X., Thieu, V., Billen, G., Campuzano, F., Dulière, V., Garnier, J., Lassaletta, L., Ménesguen, A., Neves, R., Pinto, L., Silvestre, M., Sobrinho, J.L., Lacroix, G., 2018. Reducing Marine Eutrophication May Require a Paradigmatic Change. *Science of the Total Environment* 635 (2018) 1444–1466

^{vi} Crossley, Laura Helen (2019) Palaeoenvironmental reconstruction of Poole Harbour water quality and the implications for estuary management. *University of Southampton, Doctoral Thesis*, 331pp,

Howden, N.J.K., Burt, T.P., 2009. Statistical analysis of nitrate concentrations from the Rivers Frome and Piddle (Dorset, UK) for the period 1965–2007. *Ecohydrology* 2, 55–65. doi:[10.1002/eco.39](https://doi.org/10.1002/eco.39),

Howden, N. J. K., Burt, T. P., Worrall, F., Whelan, M. J., & Bieroza, M. (2010). Nitrate concentrations and fluxes in the River Thames over 140 years (1868-2008): Are increases irreversible? *Hydrological Processes*, **24**, 2657– 2662. <https://doi.org/10.1002/hyp.7835>

^{vii} Supplementary Planning Document – Achieving Nitrogen Neutrality in Poole Harbour. 2017

^{viii} Supplementary Planning Document – Achieving Nitrogen Neutrality in Poole Harbour, 2017

^{ix} <https://www.theccc.org.uk/publication/land-use-policies-for-a-net-zero-uk/>

^x These plans contain public sector information licensed under the Open Government Licence v3.0

^{xi} Environment Agency – CPM modelling, SAGIS/SIMCAT and Telemac modelling for Water Framework Directive DIN and Ecological Impact Investigations, 2014

Figure 2

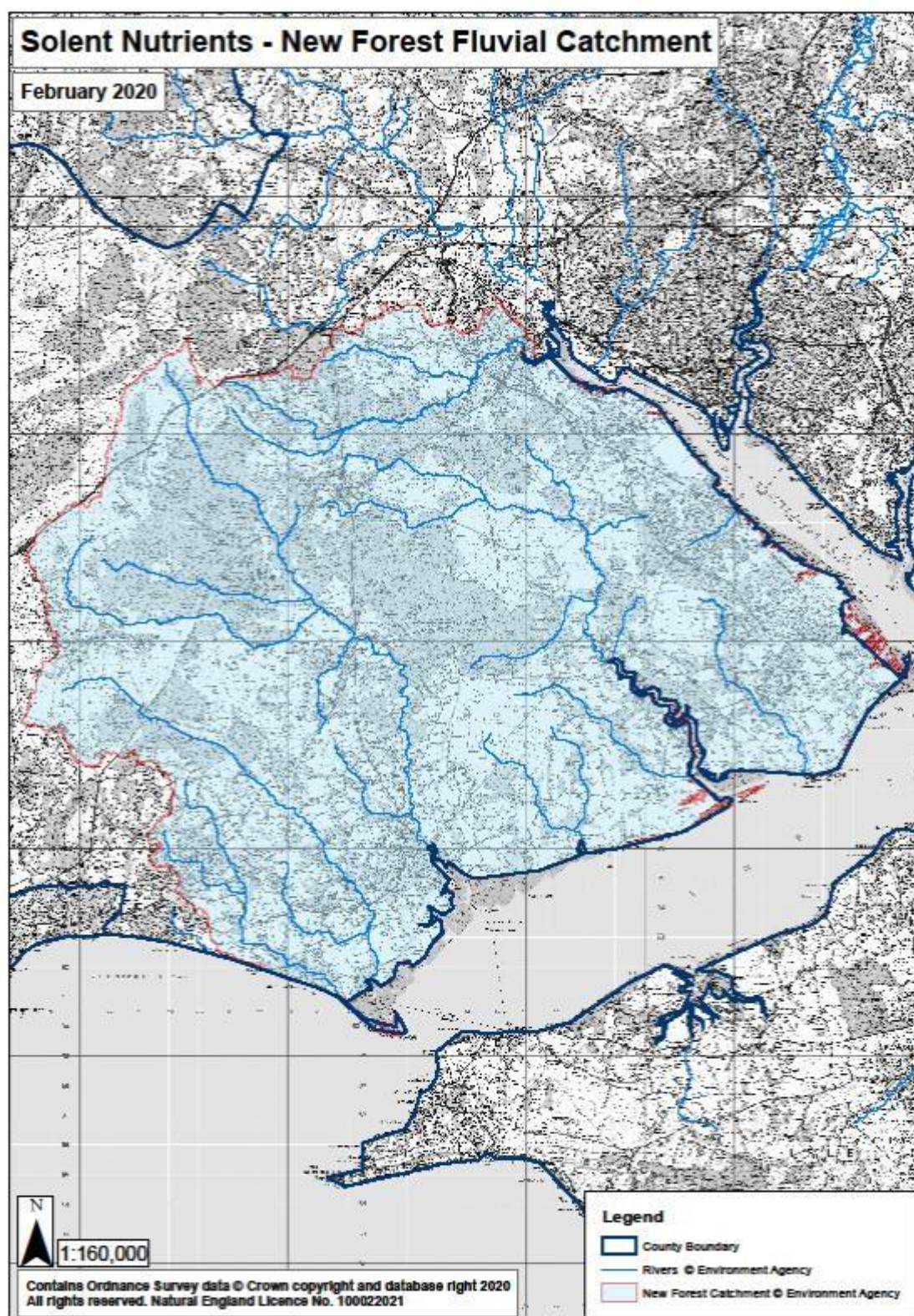


Figure 3

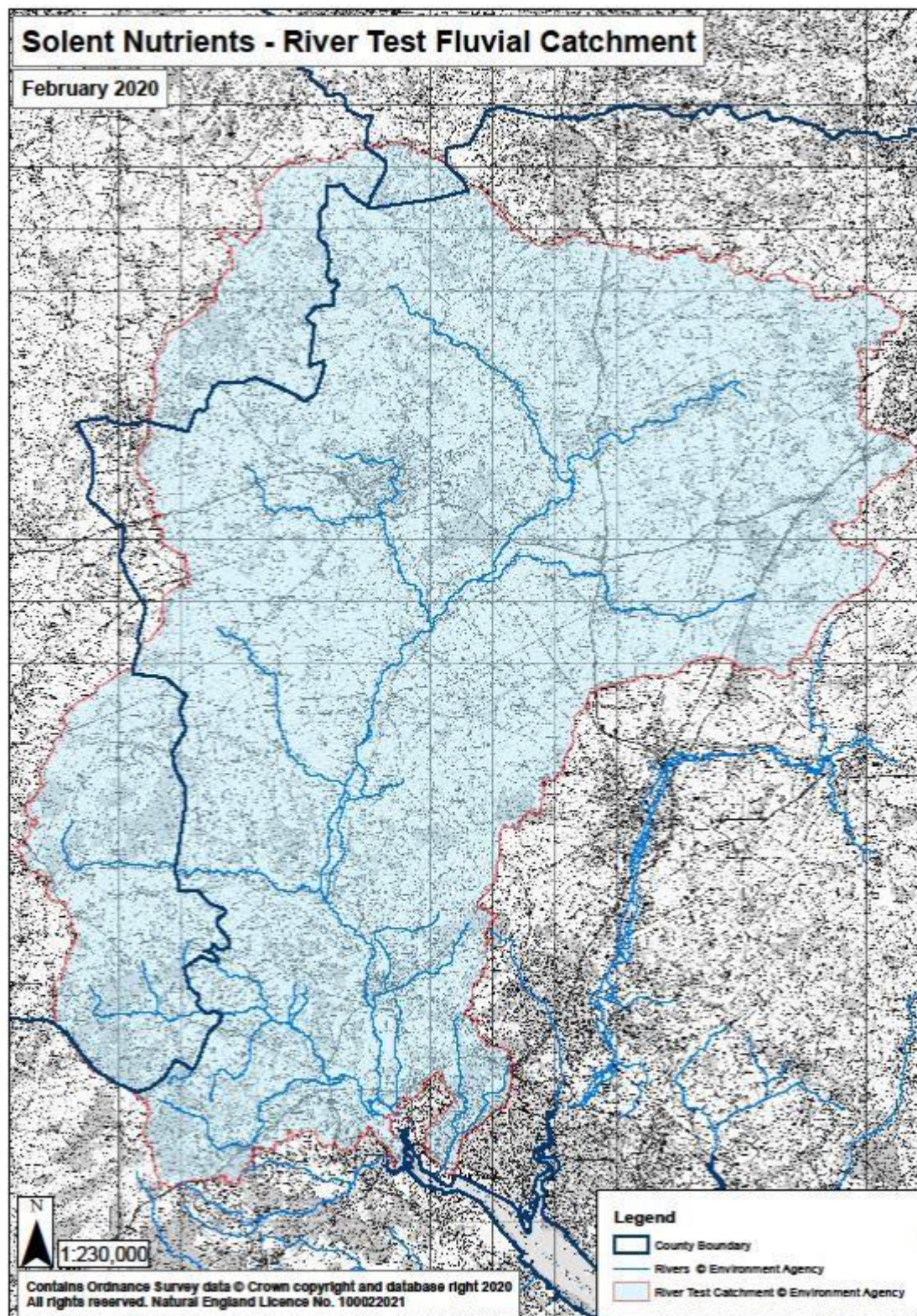


Figure 4

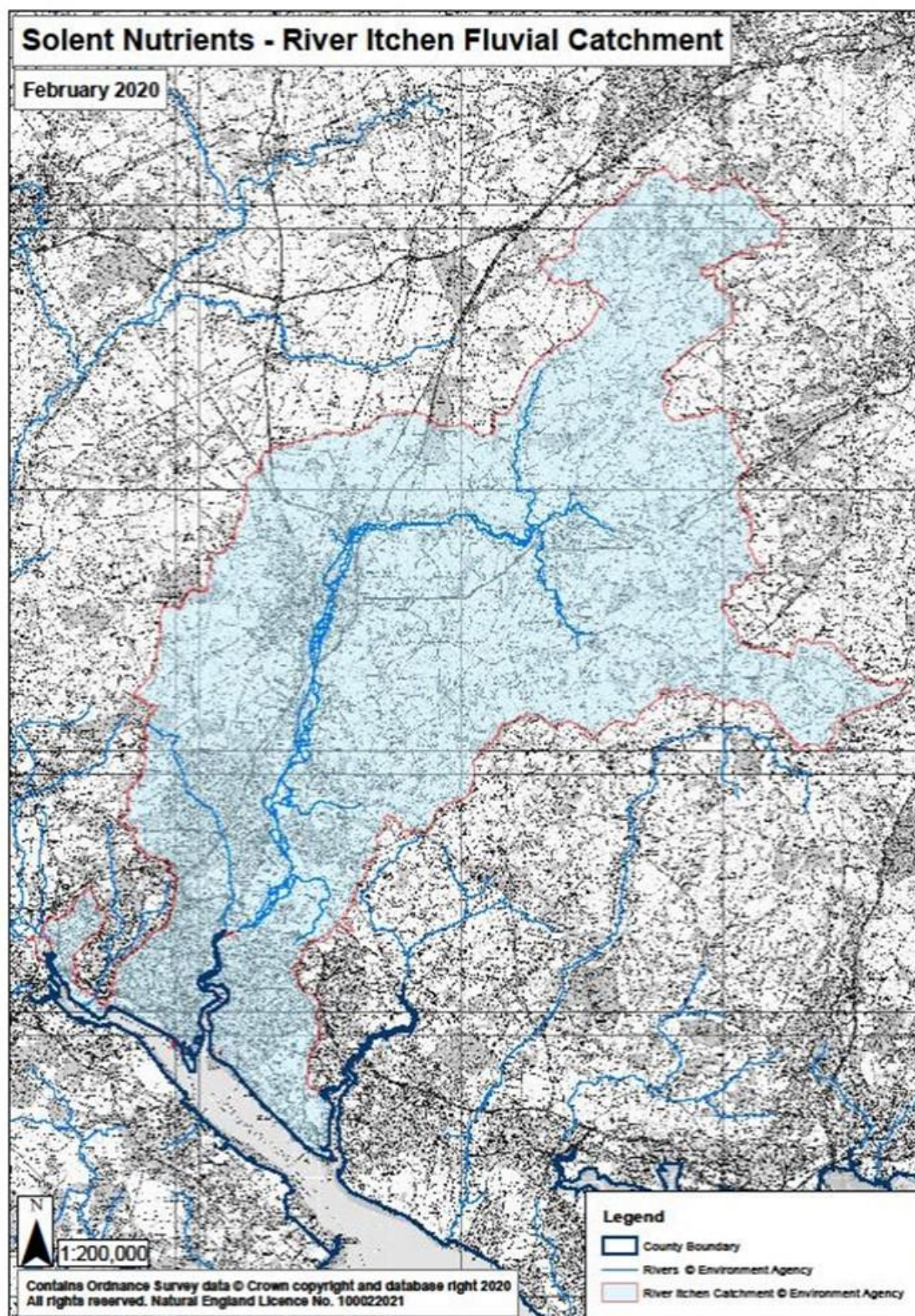


Figure 5

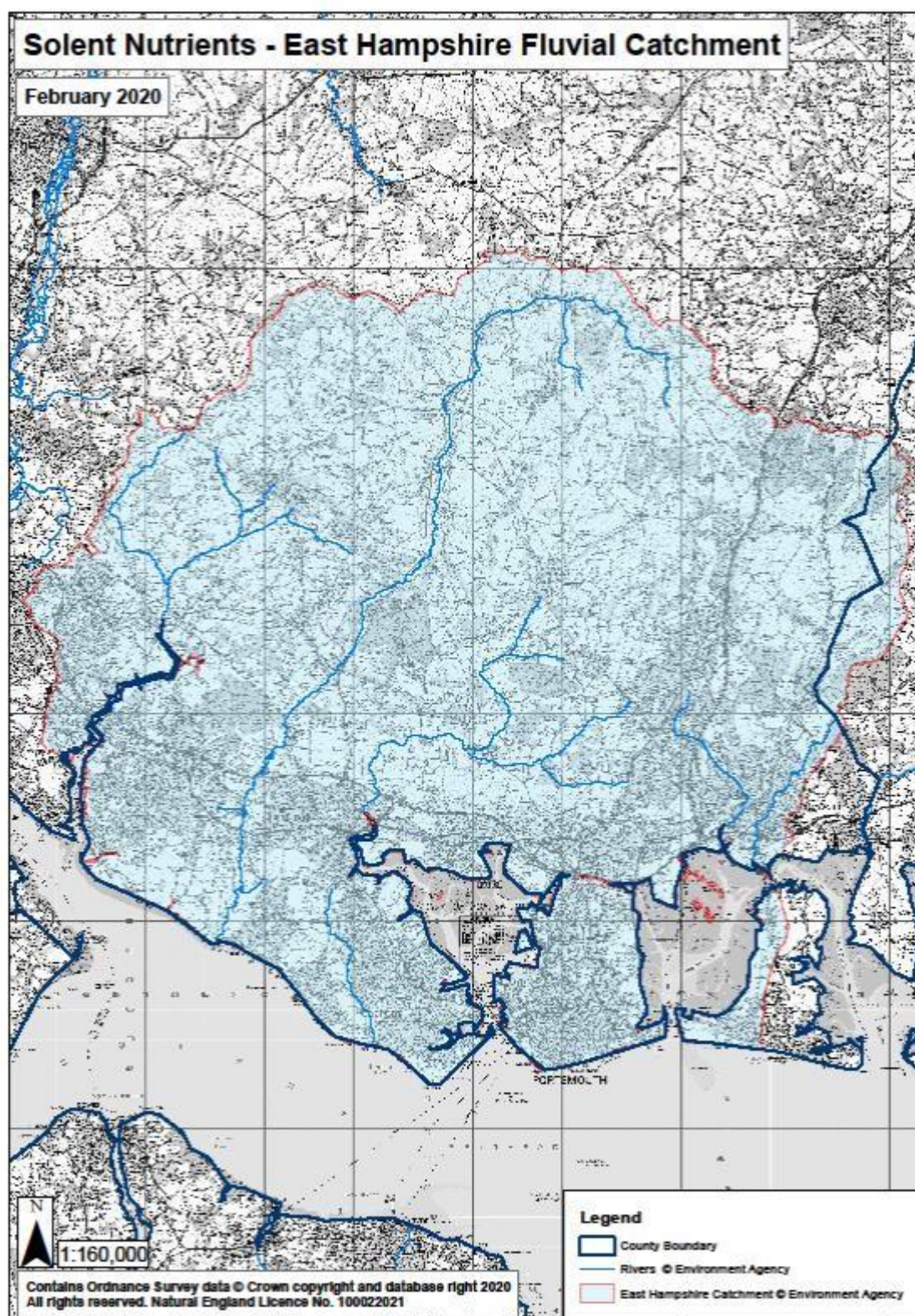


Figure 6

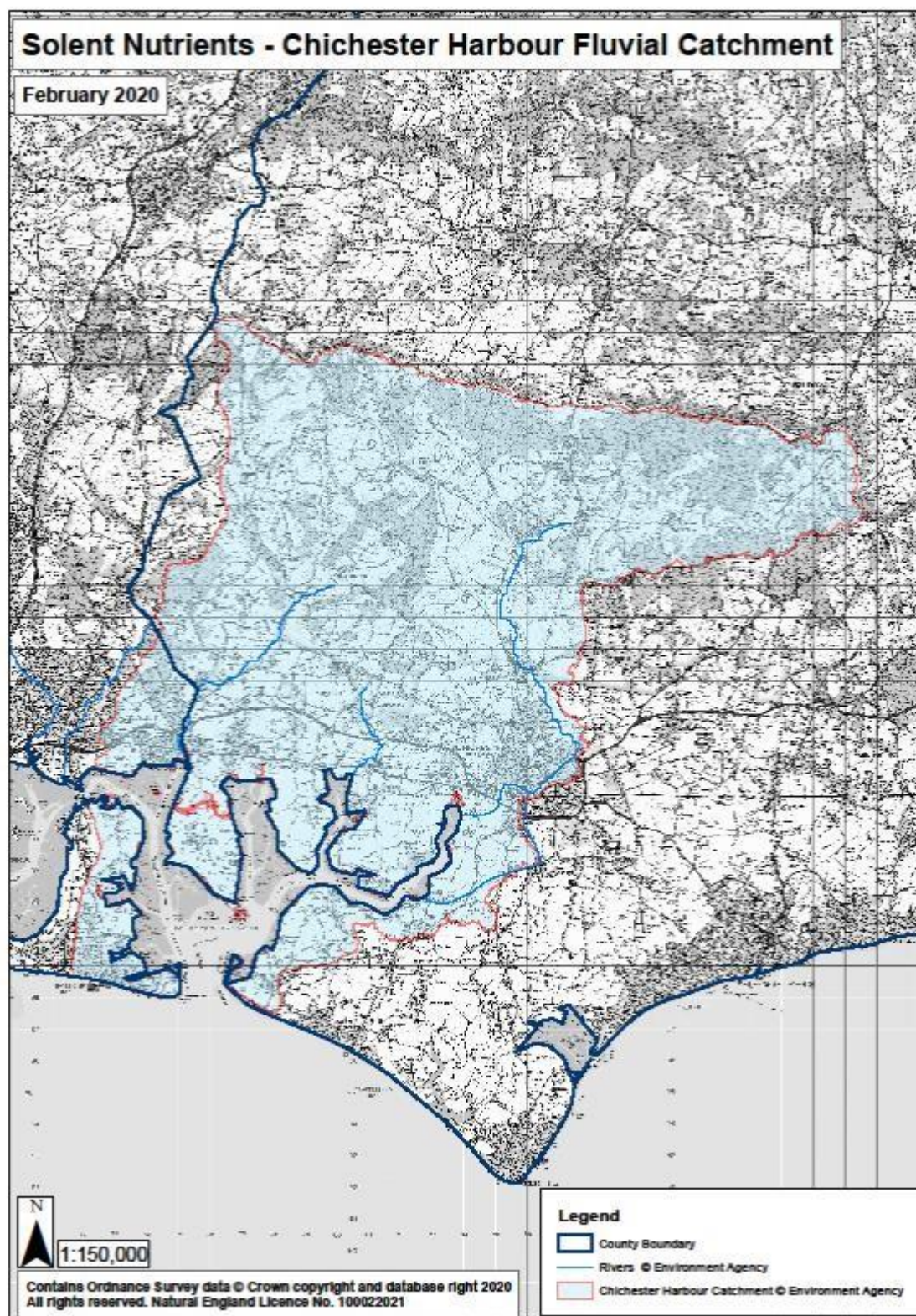
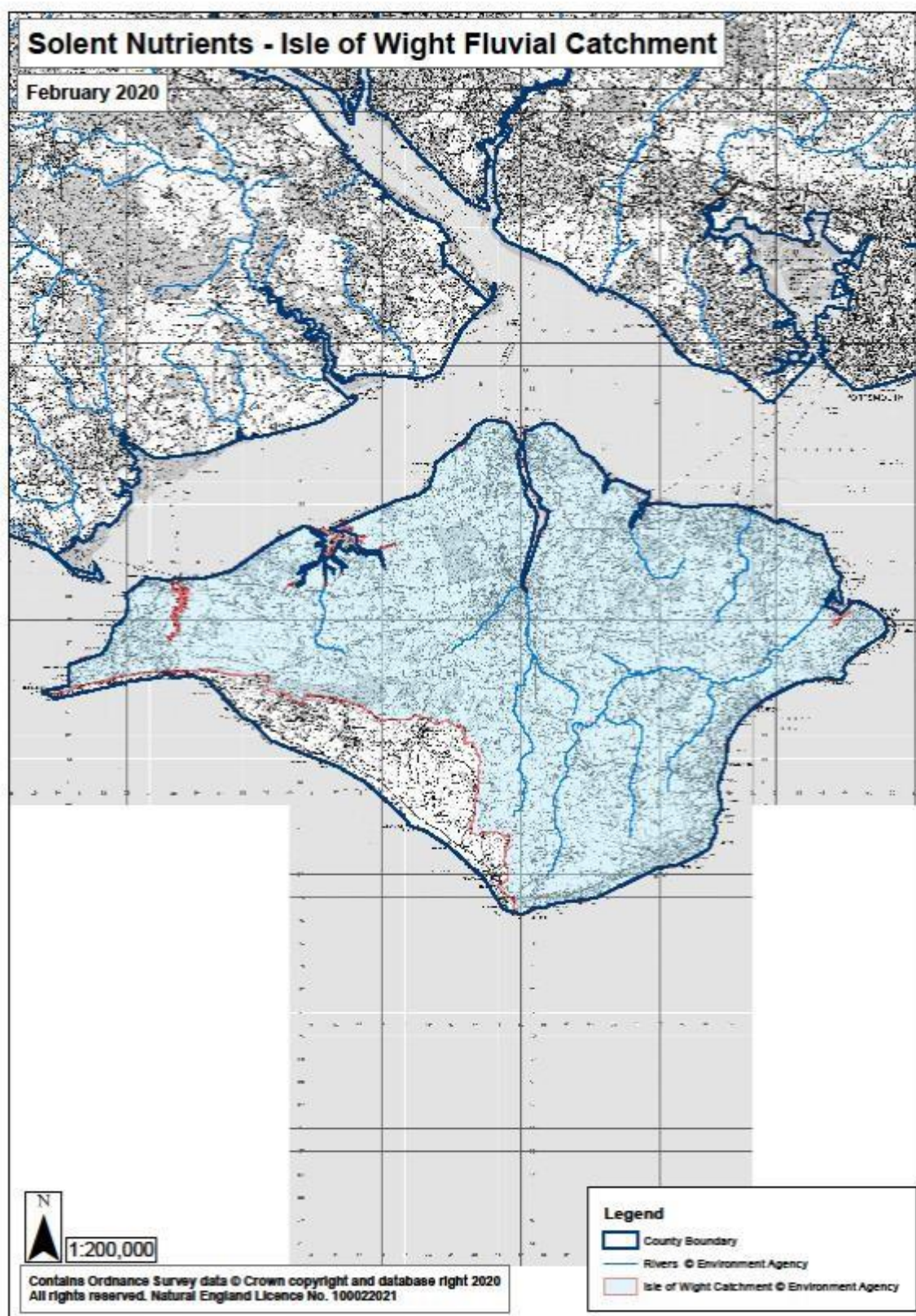


Figure 7



ANNEX 1 PLANNING CONTEXT

- A1.1 In 2016, an Integrated Water Management Study (IWMS) for South Hampshire was commissioned by the Partnership for Urban South Hampshire (PUSH) Authorities, with the Environment Agency and Natural England. This examined the delivery of development growth in relation to legislative and government policy requirements for designated sites and wider biodiversity. It updated an earlier study in 2008. Similar studies have also been undertaken for Chichester Harbour and growth in Sussex (2018) though this study was largely for Water Framework Directive assessments.
- A1.2 The IWMS for South Hampshire was completed in March 2018 and identified that there is currently uncertainty as to whether new housing growth can be accommodated without having a detrimental effect upon the water environment.
- A1.3 The updated IWMS report in March 2018 concluded that there is uncertainty about the impact of local plan growth on the designated sites, especially after 2020. There was uncertainty about the efficacy of catchment measures to deliver the required reductions in nitrogen levels, and/or whether the upgrades to wastewater treatment works will be sufficient to accommodate the quantity of new housing proposed.
- A1.4 To examine this issue further, local planning authorities set up a Water Quality Working Group in South Hampshire to add to the one already in existence for Chichester with the Environment Agency, Natural England and water companies. The objectives of these groups include identifying and analysing the existing evidence gaps and evaluating the need for strategic mitigation measures. The primary focus of this work is to address the uncertainty associated with strategic local plan growth.
- A1.5 Natural England is working closely with local planning authorities to address this wider issue and progress options that achieve nutrient neutrality. It is appreciated that this may be difficult for smaller developments, developments on brownfield land or developments that are well-progressed in the planning system.
- A1.6 Natural England has advised affected local planning authorities to set up Borough-wide, or strategic approaches that developments can contribute to thereby ensuring that this uncertainty is fully addressed by all applications and is working closely with affected local planning authorities to help address this issue.

ANNEX 2 ENVIRONMENTAL CONTEXT

Designated sites review

Solent Maritime SAC and SPAs

- A2.1 In 2018, condition assessments of the estuary, mudflat & sandflats, and sandbanks features of the Solent Maritime SAC were undertaken. The condition assessments completed considered the SAC features across the site as a whole and found the condition of these features assessed to be unfavourable. The unfavourable assessment is based on a number of attributes failing, including the nutrient water quality attribute. Other attributes were also found to be failing, such as the extent, distribution, rhizome structure and reproduction, and biomass of seagrasses, as well as the infaunal quality of the intertidal mud and sand features. These failures are likely to be in part due to impacts from nutrients. Currently the site condition assessment does not include the saltmarsh feature which has not yet been assessed. However preliminary analysis of data shows that there was a loss of extent of saltmarsh across the Solent between 2008 and 2016. The cause of this loss it is not known but elevated nutrients can contribute towards the susceptibility of saltmarsh to erosion through effects on plant root growth and the cohesion of mud around the roots. In 2019/20 the intertidal areas of the Chichester Harbour estuary were examined in detail including the saltmarsh feature. The saltmarsh feature of this part of the SAC is in unfavourable declining condition due to the poor quality of the remaining marsh and ongoing net loss. Chichester Harbour contained half the saltmarsh feature area at designation of the SAC. Water quality impacts (macroalgal mats rotting and living) were recorded on all the saltmarsh surveyed.
- A2.2 A full SPA condition assessment has yet to be undertaken, however the 2019/20 assessment of Chichester Harbour included assessment of the Chichester and Langstone Harbours SPA as well as the SSSI birds. This showed that shelduck populations on the SSSI and the SPA are showing a 71% decline in the long term that appears to be tracking that of the region although not the British trend. The declining proportion of the regional numbers supported by this site suggest that site-specific pressures are affecting this species. While the cause of these site specific declines in Chichester Harbour and the Solent area more widely are yet to be confirmed, research has found that the foraging ability of shelduck can be affected by algal mats. The wintering bird assemblage in general across Chichester Harbour is in unfavourable no change condition.

Solent and Dorset Coast Special Protection Area

- A2.3 The Solent and Dorset Coast Special Protection Area (SPA) protects important foraging areas at sea used by qualifying interest features from colonies within adjacent SPAs, namely the Solent and Southampton Water SPA and the Chichester and Langstone Harbours SPA. These qualifying interest features are the foraging and nesting of three species of tern: common tern, Sandwich tern and little tern. This

site was designated in 2020. Given the relationship between the designated sites for the foraging areas and the colonies, the threats and condition of each these interrelated designated sites should be considered in combination as part of the Habitat Regulations Assessment. The SPA has not yet been fully condition assessed but the Chichester Harbour review of 2020 looked at not only breeding numbers of the three tern species in but also the productivity (how many chicks survived). The terns in Chichester Harbour, which are also a feature of the SSSI, are considered to be overall in unfavourable declining condition. The relationship of the tern breeding and foraging populations to water quality impacts in the Solent is not currently known, although it is not thought to be the primary reason for declining numbers of poor productivity in Chichester Harbour.

Solent and Isle of Wight Lagoons Special Area of Conservation

- A2.4 The Solent encompasses a series of coastal lagoons, including percolation, isolated and sluiced lagoons. The site includes a number of lagoons in the marshes in the Keyhaven – Pennington area, at Farlington Marshes in Langstone Harbour, behind the sea-wall at Bembridge Harbour and at Gilkicker, near Gosport.
- A2.5 The water quality target for the coastal lagoon features is to maintain nutrient levels at which biological indicators of eutrophication (opportunistic macroalgal and phytoplankton blooms) do not affect the integrity of the site and features, avoiding deterioration from existing levels. Surveys in 2013, noted several lagoons had high pH levels likely due to photosynthetic activity, however there were no records of opportunistic macroalgae or phytoplankton blooms and most lagoons (except for Butts Lagoon and Shut Lake) continue to support good lagoonal communities. The sediment in Butts Lagoon has remained anoxic in surveys in 2013, although this represents similar conditions to that present in baseline surveys. Therefore, available evidence does not indicate that eutrophication is affecting site integrity at any of the lagoons within the SAC, except for Butts Lagoon.

SSSI

- A2.6 During 2018 and 2019, Natural England revised and updated the SSSI assessments in the greater Solent area in relation to the influence of the water environment on the condition of estuarine SSSI interest features that underpin the SAC and SPAs. These assessments especially included littoral sediment habitat (mudflat and other tidally exposed sediment flats). The review of parts of the greater Solent area and some SSSI interest features is ongoing.
- A2.7 The SSSI interest feature assessments completed consider the concentrations of inorganic nitrogen status in each harbour and estuary, and evidence for ecological responses. Particular attention was given to records on phytoplankton abundance and the presence and abundance of opportunistic green macroalgae. Other responses to elevated nutrients may also occur, such as effects on phytoplankton composition and seagrass and saltmarsh extent and composition. These have not yet been assessed.

- A2.8 Where there is sufficient information to show that the water environment causes interest features to be in unfavourable condition, this has been recorded within the completed assessments. In addition, in cases where there is significant uncertainty that elevated nutrient levels are affecting the condition of interest features, a provisional assessment of borderline favourable condition is recorded, along with a potential threat that unfavourable condition may become apparent with more evidence. In cases where there is currently inadequate information to come to a conclusion the SSSI assessment has remained unchanged. Some parts of the greater Solent area are also recorded to be in unfavourable condition for SSSI interest features for reasons other than the water environment, such as coastal squeeze and disturbance. A brief summary of the condition classes in relation to the water environment for interest feature condition follows.

Unfavourable Declining Condition

- A2.9 The 2018 assessment did not assign units to this condition as this condition requires demonstration of significant deterioration or declines in populations above threshold numbers for birds or loss of habitat for features or demonstrable and consistent worsening of attributes over time.
- A2.10 The more detailed, follow-on assessment, to review trends in the interest features of Chichester Harbour in 2019/20 has determined that the Chichester Harbour condition is declining due to the continued net loss of the saltmarsh feature, poor condition of the remaining marsh, declining numbers of some species of terns and low or zero productivity of nesting terns in the Harbour. Overall the wintering bird assemblage was unfavourable no change not because the birds populations were stable but because on average the declines in populations were not sufficient to trigger a declining status. Trends varied with species, with those species that can switch to other foraging methods and habitats away from the intertidal in general showing lesser declines or even increases. The other features assessed (littoral sediment, eelgrass were all given unfavourable status but with low confidence and Natural England were unable to discern a trend due to insufficient data. The units were assigned to the features in the worst condition where the data was of high confidence so overall the intertidal habitats in Chichester Harbour in unfavourable declining condition.

Unfavourable no change

- A2.11 This work identified that there are sections of the designated sites in the Solent that are unfavourable for the interest features on the weight of evidence of elevated levels of inorganic nitrogen and biological indication of eutrophication shown by the abundance of macroalgae. Where sites are recorded as unfavourable, opportunistic green macroalgae is recorded to reach >75% cover, or a biomass of 1kg/m² or more. In these cases there is also little or no evidence of any reduction in nutrient status that would be adequate to substantially prevent the growth of dense macroalgae mats.

- A2.12 There are unfavourable (no change) assessment on units within the following estuaries and harbours in Hampshire: Southampton Water, Hamble estuary, Portsmouth Harbour, Chichester Harbour and on the Isle of Wight: Yar estuary, Newtown Harbour, Medina estuary, Wootton Creek and Bembridge Harbour.

Unfavourable recovering (at risk)

- A2.13 The review identified that there are parts of Langstone Harbour where the water environment of a unit is assessed as unfavourable for the interest features on the weight of evidence on inorganic nitrogen concentrations and biological indications of eutrophication, shown by the abundance of macroalgae (>75% cover density or a biomass of $\geq 1\text{kg/m}^2$), but recovering on the basis of a large reduction in nutrient inputs through diversion of wastewater. These units are considered 'at risk' of not recovering to a favourable situation on the water environment as it is unclear whether the nutrient status will become adequate to substantially prevent the growth of dense macroalgae mats in parts of the Harbour. Also other potential ecological responses to elevated nutrient concentrations that could affect the condition of the designated features, such as impacts on saltmarsh and seagrass, have not been assessed.
- A2.14 The 2018 assessments did not identify any Unfavourable (recovering) units where there is a littoral sediment feature in any of the other estuaries and harbours.

Favourable – high threat

- A2.15 Some sections of the designated sites in the Solent are provisionally assessed as borderline favourable for the interest features. Here there is elevated levels of inorganic nitrogen but, at a local unit scale, the data that is available only demonstrates slight biological indication of eutrophication shown by some presence of macroalgae (<75% cover density, or a biomass of $<1\text{kg/m}^2$). These are provisional assessments with a high threat that the nutrient status is inadequate to substantially prevent detrimental ecological effects on designated features, particularly if there is change in environmental conditions. The high threat assessment also reflects the fact that other potential ecological responses to elevated nutrient concentrations that could affect the condition of the designated features, such as impacts on saltmarsh and seagrass, have not yet been assessed.
- A2.16 There are favourable (high threat) units within the following estuaries and harbours in Hampshire: Lymington estuary, Solent and Itchen Estuary, Test Estuary, Southampton Water, Portsmouth Harbour, Chichester Harbour, Langstone Harbour, and on the Isle of Wight: Newtown Harbour and Bay and Bembridge Harbour.

Catchment work

- A2.17 The high levels of nitrogen and phosphorus input to the water environment is currently caused by agricultural sources and wastewater from existing housing.

There are a number of mechanisms already in place to reduce the amount of nutrient inputs within our rivers and coastal waterbodies.

- A2.18 Within the river catchments; Defra's Catchment Sensitive Farming (CSF) programme works with agriculture to reduce diffuse sources of pollution such as fertiliser and slurry run-off. One of the aims of this work is to deliver environmental benefits from reducing diffuse water pollution. To achieve these goals CSF delivers practical solutions and targeted support which should enable farmers and land managers to take voluntary action to reduce diffuse water pollution from agriculture to protect water bodies and the environment.
- A2.19 In addition, Southern Water is upgrading their wastewater treatment works to reduce the amount of phosphorus inputs from human sewage. There are agreed improvements to phosphorus permits on four Southern Water Services on the River Test and phosphorus upgrades at two wastewater treatment works on the River Itchen.
- A2.20 Natural England has recently published a review of the effectiveness of catchment sensitive farming approaches in the report "Catchment Sensitive Farming Evaluation Report – Water Quality Phases 1 to 4 (2006-2018) (NE731)". Work is on-going to evaluate the effectiveness of such work in reducing existing inputs into the Solent's water environment. Nationally, the results in this report state that water quality is estimated to have improved, due to reduced pollutant loadings, by between 1.2 and 6.5 per cent across water bodies associated with Phase 1 CSF Target Areas.

Type of nutrient inputs to designated sites

- A2.21 There is evidence that inputs of both phosphorus and nitrogen influence eutrophication of the water environment. However, the principal nutrient that tends to drive eutrophication in the marine environment is nitrogen and this is supported by modelling and evidence.
- A2.22 A modelling assessment has been undertaken by the Environment Agency to understand the importance of nitrogen in causing the growth of macroalgae and phytoplankton within estuaries in the Solent. This work used the Combined Phytoplankton and Macroalgae model developed by Cefas and was assessed at a water body scale. This scale provides an overview and may mask conditions that are unfavourable for designated interest features at a more local scale. The modelling suggests that in one estuary, the Medina, both nitrogen and phosphorus availability may control macroalgae growth (e.g. Rees-Jones et al 2014 and Udal *et al* 2014).
- A2.23 The best available evidence is for focus in the Solent harbours to be on nitrogen reduction, and reduction in both nitrogen and phosphorus in the Medina catchment. However, this approach may be refined if greater understanding of the eutrophication issue is gained by thorough new research or updated modelling.

- A2.24 The nutrient budget in this report calculates quantities of nitrogen (N) generated by development. This N comes in different forms and measured N concentrations vary according to exactly what is measured. These differences need to be recognised when calculating nutrient budgets. The key measurement is Total Nitrogen (TN), i.e. both organic and inorganic forms of nitrogen, because this is what is available for plant growth. TN is the sum of the inorganic forms - nitrate-nitrogen (NO₃-N), nitrite-nitrogen (NO₂-N), ammoniacal-N - and organically bonded nitrogen.
- A2.25 Total Nitrogen is measured by WwTW where there is a permit with a TN limit consent. However, for WwTWs without permits, measurements could be inorganic nitrogen (nitrate + nitrite + ammoniacal N) or TN or a mix. Most river quality monitoring by EA only records the inorganic N forms. The Farmscoper report measures nitrate-nitrogen not TN. Nitrate is normally the largest component of TN but quantities of organic N are significant. In the Test catchment dissolved organic nitrogen has been found to comprise 7% of the potential biologically available nitrogen in the river and 13% of that in the estuary (Purdie, 2005). Thus, the land use change element of this methodology will underestimate TN leaching. We therefore advise that this uncertainty is recognised as one of the several factors taken into account by the recommended precautionary buffer approach adopted by this methodology.
- A2.26 For developments on the Isle of Wight that are impacting on the Medina estuary, both a phosphorus and nitrogen budget may be required. Natural England will work closely with the Isle of Wight Council and applicants to provide advice on a bespoke case-by-case basis.
- A2.27 This approach is also supported by scientific literature which confirms that whilst both nitrogen and phosphorus should be reduced to tackle estuarine eutrophication, primarily the focus should be on nitrogen. Phosphorus reduction alone does not address the mechanisms caused by elevated nitrogen that affect sea-grass health and the structural stability, extent and plant species diversity of saltmarsh. In addition, most land use measures to reduce nitrogen are also likely to reduce phosphorus concurrently.

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Appendix 1 – Farm Types

The UK system is based on weighting the contributions of each enterprise in terms of their associated outputs. The weights used (known as ‘Standard Outputs’ or SOs) are calculated per hectare of crops and per head of livestock and used to calculate the total standard output associated with each part of the Farm Business.

Cereals

Holdings on which cereals, combinable crops and set-aside account for more than two thirds of the total SO and (pre-2007) where set-aside alone did not account for more than two thirds of the total SO. (Holdings where set-aside accounted for more than two thirds of total SO were classified as specialist set aside and were included in “other” below.)

General cropping

Holdings on which arable crops (including field scale vegetables) account for more than two thirds of the total SO, excluding holdings classified as *cereals*; holdings on which a mixture of arable and horticultural crops account for more than two thirds of their total SO excluding holdings classified as *horticulture* and holdings on which arable crops account for more than one third of their total SO and no other grouping accounts for more than one third.

Horticulture

Holdings on which fruit (including vineyards), hardy nursery stock, glasshouse flowers and vegetables, market garden scale vegetables, outdoor bulbs and flowers, and mushrooms account for more than two thirds of their total SO.

Specialist Pigs

Holdings on which pigs account for more than two thirds of their total SO.

Specialist Poultry

Holdings on which Poultry account for more than two thirds of their total SO.

Dairy

Holdings on which dairy cows account for more than two thirds of their total SO.

Lowland Grazing Livestock

Holdings on which cattle, sheep and other grazing livestock account for more than two thirds of their total SO except holdings classified as *dairy*. A holding is classified as lowland if less than 50 per cent of its total area is in the Less Favoured Area (LFA).

Mixed

Holdings for which none of the above categories accounts for more than 2/3 of total SO. This category includes mixed pigs and poultry farms as well as farms with a mixture of crops and livestock (where neither accounts for more than 2/3 of SOs).

http://farmbusinesssurvey.co.uk/DataBuilder/UK_Farm_Classification_2014_Final.pdf

Appendix 2 – Leaching of nitrogen from urban areas

The average total nitrogen leaching rate from an urban area (14.3kg/ha/yr) comes from values for hydrologically effective rainfall (478mm - precipitation minus losses from evapo-transpiration) and the nitrogen concentration of leachate (3mg/l) given in Bryan et al (2013) the latter figure derived from an AMEC report. The value for nitrogen concentration is similar to one quoted in House et al (1993) who give a mean event concentration of 3.2mg/l for total nitrogen (with this value derived from other sources) with a range of 0.4-20mg/l. Thus although it is not specified by Bryan et al (2013), it is probably reasonable to take the 3mg/l to be total nitrogen especially since the organic component of N from urban areas is likely to be relatively small.

Mitchell (2001) gives the following event mean concentrations in mg/l total N from urban areas; Urban Open 1.68; Ind/Comm 1.52; Residential 2.85; Main roads 2.37. It is recognised that the datasets that produced these figures are not large (n = 14 in this case), a good deal of uncertainty remains and that further sampling is needed to validate models of pollutant effects from urban runoff (Leverett et al 2013).

Typical nutrient concentrations in urban stormwater runoff in the U.S. are 2.0 mg/l for total N (TN) (Schueler 2003). Population densities seem to be less in the most studied urban catchments (eg Groffman et al 2004 in Baltimore, Hobbie et al 2017 in Minnesota) than those in the UK but this does not necessarily lead to an increase in the rate of nitrogen leaching from the catchment for the factors affecting this value are complex. Thus although there will clearly be variation between different urban areas, there is insufficient knowledge to be able to predict N leaching from the different characteristics of these areas. And for practical purposes an overall N leaching figure is needed; nothing found in the literature indicates that another value would be more representative than 3mg/l.

An N leaching figure can also be derived by using the relationship between mean stream and river flow rate and catchment area. The ratio for the gauging station on the River Meon at Mislingford is 0.014m³/sec/km² and, with a TN concentration of 3mg/l, this equates to a TN leaching rate of 13.2mg/l, similar to the value obtained when hydrologically effective rainfall is used.

Comparison can also be made with direct measurements of TN urban outputs from studies in the USA (Hobbie et al 2017, Groffman 2004). The values in the Hobbie paper for urban catchments in Minnesota varied from 12.5-27.2 kg/ha/yr with a mean of 17.3 kg/ha/yr. The outputs measured by Groffman (2004) were smaller (between 5.5 and 8.6kg/ha/yr) but these were less urbanised catchments, several including areas of old growth forest where nitrogen retention was very high. Thus these values are broadly of the same order as the 14.3 kg/ha/yr leaching figure initially calculated.

Nitrogen inputs in these studies come predominantly from three sources - atmospheric deposition, pet waste and lawn fertilisation. N deposition was slightly lower in both Baltimore and Minnesota than values from APIS in the around the Solent (23.8kg/ha/yr for hedgerows

or woodland, 14.7kg/ha/yr for grassland). No UK studies have been found to compare with the US ones for N inputs in urban areas from pet waste or from lawn fertilisation.

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Appendix 3 - Estimating the leaching of total nitrogen (TN) from natural greenspace (SANG).

A number of assumptions must be made about the management of the SANG to allow an estimate of TN leaching to be made. These are as follows:

- The vegetation of the SANG would be predominantly permanent grassland but with an element of tree and scrub cover (this will of course vary for different SANGS but a 20% average figure is used here). The degree of tree and scrub cover will not greatly affect the result as both permanent grassland and woodland/scrub exhibit a high degree of N retention. It matters most because of the differences in the rate of atmospheric N deposition between the two habitats.
- The grassland would be permanent (ploughing will release large amounts of N) and is not fertilised either with artificial fertiliser or manures. It may be ungrazed or grazed very lightly (<0.1LU/ha/yr) with no supplementary feeding (even without supplementary feeding, grazing can increase N leaching because N retention is lower when N is delivered in the form of cattle urine and dung [Wachendorf et al 2005]).
- The grassland may be cut with the cutting regime dependent on other factors. Cuttings may be left or removed from site as the case may be but should not be gathered and composted in heaps on site. Any gorse within the scrub should be controlled so it is no more than rare across the mitigation area since a significant amount of nitrogen fixation occurs within gorse stands.

A generic leaching value for N concentration from AMEC for 'rough grazing', quoted in Bryan et al (2013), is 2mg/l. Using this concentration together with a value of 478mm for the hydrologically effective rainfall (HER) gives a leaching value for N of 9.6 kg/ha/yr. A similar value (8.8kg/ha/yr) is obtained if the relationship between mean stream flow and catchment area (0.014 cumecs/km² which is the ratio for the gauging station on the nearby River Meon at Mislingford) is used instead, keeping the same N concentration of 2mg/l. It is not clear whether these AMEC concentrations are for total nitrogen or for inorganic nitrogen.

The particular grassland management regime for which the 2mg/l N concentration applied is not known. However, even though studies of N leaching from natural unfertilised grasslands are rare in the literature (most are of agricultural grasslands with fertiliser inputs of some sort) it seems likely that this value is higher than might be expected from a natural grassland with no fertiliser inputs such as a SANG. Thus for example TN leachate concentrations were between 0.44 and 0.67 mg/l in an extensively managed montane grassland (that still had one slurry application per year) and the equivalent mean TN loss was 1.0, 2.6 and 3.1 kg/ha/yr for three different areas (Fu et al 2017).

Adjusting for a SANG with 20% woodland/scrub, using the AMEC woodland generic leaching value of 0.5mg/l (Bryan et al 2013) for the woodland/scrub component, results in an N output of 8.1 kg/ha/yr.

The 0.5mg/l value is also much higher than the very low nitrate concentrations in streams from purely forested catchments (Groffman 2004) and from those reported by for a large sample of forested streams by Mulholland et al 2008 where the mean nitrate-N concentrations were <0.1mg/l. All but a few of the samples from an unfertilised suburban lawn had nitrate-N concentrations below the detectable limit of 0.2mg/l (Gold et al 1990). The same was true for a forest plot and the average nitrate-N losses from both home lawn and the forest plots averaged 1.35 kg/ha/yr over 2 years. These studies of both grassland and woodland nutrient cycling suggest that the AMEC generic leachate concentration of 3mg/l, resulting in an N output of 9.6kg/ha/yr, is too high when applied to a SANG.

Despite there being no direct N fertiliser inputs on a SANG, N inputs will still occur from three main sources. These are atmospheric deposition, pet waste and N fixation from legumes and estimating the contribution of each of these sources, together with the proportion of N retained, is an alternative method of working out the N contribution from a SANG.

N deposition

The following are typical values taken from APIS for TN deposition in the Solent area. .

Improved grassland 14.7 kgN/ha/yr; Arable horticultural 14.7 kgN/ha/yr; Neutral grassland 14.7 kgN/ha/yr

Hedgerows 23.8 Kg N/ha/year; Broadleaved, Mixed and Yew Woodland 23.8 Kg N/ha/year

Using the value for hedgerows and woodland for the 20% scrub component of the hypothetical SANG and the neutral grassland value for the rest results in a deposition rate of $11.76 + 4.76 = 16.5$ kg/ha/yr.

Pet waste

SANGs are specifically designed to attract increased levels of public access particularly dog walkers so the potential inputs of N from dog waste are likely to be significant.

Hobbie et al (2017) give a figures for TN inputs from this source for entire urban areas and these vary between 3.56 and 21.2kg/ha/yr for 7 urban catchments with a median of 6.9kg/ha/yr. A figure of 17kg/ha/yr can be gleaned from Baker 2001 which was worked out using information on pet numbers, nutritional needs, pet weights etc; 76% of this was from dogs.

The heavy use of SANGS by dogs suggests that N inputs would most likely be higher than these figures averaged over the whole urban area. Nevertheless, inputs to the SANG from this waste means that it is not deposited elsewhere in the urban area where N may anyway end up in the same receiving water.

TN retention in grasslands will also be higher than the average over other parts of the urban area but the characteristics of the inputs from dogs is likely to lower the amount of TN

retained because the concentrated patchy nature of the input will reduce the proportion of TN retained compared with more evenly spread inputs, as mentioned above.

Picking up dog faeces will obviously reduce the input from but not remove inputs from urine. Dog urine has a high N content.

In these circumstances there is clearly uncertainty about the level of input from this source the highest figure from Hobbie et al (21.2kg/ha/yr) has been used but adjusted downwards because not all of this will be from dogs resulting in an overall value of 16.1 kg/ha/yr.

This has also been done on the basis that funding, together with a binding commitment, is provided for in perpetuity collection of dog waste and enforcement of pick up rather than relying on direct LA resources which could stop at any time.

TN fixation

Hobbie et al (2017) give a value for this of 17.5kg/ha/yr from direct investigation of unfertilised urban parks and this is the value used. Fixation would only be in the grassland part of the SANG which reduces the figure to 14 kg/ha/yr.

TN retention

A number of studies have shown high TN retention in urban areas (eg 80% Hobbie et al 2017) thought to be mainly attributable to TN retention in urban grasslands and lawns which may be in turn related to high carbon within organic matter in the soils. The release of large quantities of N when permanent grassland is ploughed illustrates the capacity of these grassland for N storage (eg Howden et al 2011).

Direct measurements of total N outputs from urban grasslands in the Groffman et al (2009) studies in Baltimore also show high N retention in urban grassland but there are difficulties in applying these results directly to SANGs partly because the plots were either quite heavily fertilised or may have had unmeasured N inputs from neighbouring land. Nitrate-N losses from an unfertilised home lawn averaged 1.35 kg/ha/yr over 2 years (Gold et al 1990). Generally the complex processes and uncertainties about how the management of these grasslands might affect the degree of TN retention and TN output makes estimation of the proportion retained difficult. Nevertheless a value of 90% given in Groffman et al (2009), and supported by a number of references given there, would seem reasonable considering also that overwatering and over fertilising, neither of which would happen on a SANG, seem to be factors that lead to more leaching.

Woodland and scrub. N retention measured in forest plots in Baltimore was very high (95%) Groffman (2004). N percolation losses measured by Gold et al 1990 in forest plots were low and similar to those in unfertilised lawn. However, it is probably not valid to equate a scrub/woodland part of a SANG with the forest plots measured in the Groffman studies in Baltimore for these were old growth well established forests. Nevertheless there is still likely to be high N retention in these areas even if not as much as 95%.

Given all of the above, a 90% TN retention rate over the SANG as a whole has been used in the calculation below

Inputs

N Deposition (APIS) = 16.5 kg/ha/yr

Pet waste 16.1 kg/ha/yr

N fixation 14 kg/ha/yr

Total = 46.6 kg/yr

Watershed retention of TN 90%

Total TN output = 4.66 kgN/ha/yr

Conclusion

The question of estimating TN outputs from a SANG has been approached from different angles. These investigations all indicate that the value used so far – 13 kg/ha/yr is too high. Instead an TN output of 5 kg/ha/yr is considered to be close to the true value but still sufficiently precautionary.

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Appendix 4 – Potential for N mitigation using wetlands

Where N budget calculations indicate that N outputs from proposed developments are greater than pre development conditions, the use of new constructed wetlands to retain some of the N output is one mitigation option.

There are a number of possibilities for different types of constructed wetland. Wetlands can be designed as part of a sustainable urban drainage (SUDs) system, taking urban runoff/stormwater; discharges from STWs can be routed through wetlands; or the flow, or part of the flow, of existing streams or rivers can be diverted through wetlands.

Wetlands receiving nitrogen-rich water can remove a proportion of this nitrogen through processes such as denitrification and sedimentation. This has been demonstrated in numerous studies; a recent systematic review of the effectiveness of wetlands for N (and P) removal (Land et al 2016) used data from 203 wetlands worldwide of which the majority were free water surface (FWS) wetlands (similar in appearance and function to natural marshes with areas of open water, floating vegetation and emergent plants). The median removal rate for wetlands that were included in this review was 93g/m²/yr (or just under a tonne/ha/year). The proportion of N removed is termed the efficiency and the median efficiency of wetlands included in the Land review was 37%.

Many factors influence the rate of N removal in a wetland the most important being hydraulic loading (HLR - a function of the inlet flow rate and the wetland size), inlet N concentration and temperature. Together inlet N concentration and flow rate determine the amount of N that flows through the wetland which ultimately limits the amount of N saving that can be achieved.

The rate of removal can also be expressed in terms of the amount of N removed per unit wetland area. This removal rate will typically increase as the inlet N concentration increases, at least within the normal range of inlet N concentrations. Thus wetlands that treat the N rich discharges, for example from STWs, or water in rivers where the N concentrations are high, will remove more N per unit area than say, wetlands treating water in a stream where water quality is very good and the N concentration is low. Thus if space is at a premium, and the goal is to remove as much N as possible, it makes sense to site wetlands where N concentrations are high.

For wetlands to work well, specialist design input based on sound environmental information will be necessary. There will be a need for consultation with relevant statutory bodies. These processes are likely to be easier where wetlands are an integral part of a larger development. Wetlands do offer additional benefits above offering neutrality but will also require ongoing monitoring, maintenance and adjustments beyond any particular developments completion. Consideration of the long term security of facilities and their adoption at an early stage is advisable.

There are a number of publications which advise about constructed wetlands. For example, Kadlec and Wallace (2009) is a comprehensive source of information covering all stages related to the implementation of different types of constructed wetland. The many papers relating the results from detailed monitoring over many years of the performance of two constructed wetlands in Ohio, USA are also instructive (eg Mitsch et al 2005, 2006, 2014).

Stormwater wetlands

These are what is termed event-driven precipitation wetlands with intermittent flows. There will normally be baseflow and stormwater components to the inputs.

For such wetlands Kadlec and Wallace state that:-

‘A typical configuration consists of a sedimentation basin as a forebay followed by some combination of marshes and deeper pools’

However, ponds are usually less effective at removing N (Newman et al 2015) than shallow FWS wetlands so the emphasis here should be on the latter although a small initial sedimentation basin is desirable since is likely to reduce the maintenance requirement for sediment removal in the FWS wetland. One advantage of this type of wetland is that it can be designed as an integral part of SUDs for the development and therefore is subject to fewer constraints.

Some wetlands with intermittent flows are prone to drying out and may need provisions for a supplemental water source. In some circumstances, this may be possible through positioning the wetland bottom so that there is some connection to groundwater. However many varieties of wetland vegetation can withstand drying out although there may be a small reduction in water quality improvement (Kadlec and Wallace 2009). Nevertheless base and stormwater flows to each wetland should be worked out to ensure that it is viable.

Wetlands need to be appropriately sized taking into account the HLR and N loading rates. To give a general idea of the areas involved, a wetland 1ha in area would serve a development area of about 50ha.

Calculating the potential N retention in such wetlands involves first determining the proportion of the HER that will pass through the wetland because a percentage of the water carrying N will go directly into groundwater, bypassing storm drains and SUDs and the constructed wetlands. This percentage will depend on such factors as the proportion of hard surface within the development and the geology. Then, assuming the inlet TN concentration is 3mg/l, a proportionate reduction of 37% can be used to work out the amount of N retained.

Provision is needed to control tree and scrub invasion, for wetlands with emergent vegetation medium height such as Typha and reed had higher rates of denitrification than those dominated by trees and woody shrubs (Alldred and Baines 2016).

Other critical aspects of design are the water control structures - inflow and outflow arrangements with water level control – and the need or otherwise for a liner. This last issue is related to soil permeability. A variety of emergent wetland plants, not only reed, can be effective within wetlands. Wetlands with a number of different plant species, rather than monocultures, are desirable both for biodiversity reasons and because they are more resilient against changes in environmental conditions; different species will have different tolerances. Guidance concerning planting can be found in Kadlec and Wallace (2009); allowance should be made in planting ratios and densities for different rates of expansion of different species. Another approach is to use material containing wetland plant seeds from a nearby wetland with a species composition similar to the one preferred. However, unless the donor site is carefully monitored, this would obviously increase the risk of importing unwanted alien plants.

Sedimentation will eventually compromise some aspects of the wetland's function and rejuvenation measures will be necessary (Kadlec and Wallace 2009). The same authors indicate a sediment accretion rate in the order of 1 or 2cm/yr and give examples of rejuvenation after 15 and 18 years but other wetlands have not needed any significant restoration in similar timespans. Various different options for the management of sediment accumulation are given by Qualls and Heyvaert (2017). There of course needs to be provisions to ensure that appropriate maintenance and restoration measures, guided by monitoring, are periodically carried out.

Other sources of information about stormwater wetlands include Wong et al (1999, available on line). The papers about a stormwater wetland in the Lake Tahoe Basin in California are also useful (Heyvaert et al 2006, Qualls and Heyvaert 2017).

Constructed wetlands taking discharges from STW

Many of the considerations discussed above for stormwater wetlands apply equally here. There will obviously be constraints on the location and size of such a wetland because of land availability in the area of the STW. The flow from the STW together with the N concentration in the discharge are needed to determine the approximate size of a wetland. We would recommend a wetland area that gives an N loading of about 500 g/m²/yr or lower. Because many of the discharges from STW have a high N concentration the potential for N retention in such wetlands is also high. The concentration of N in the outflow will be variable but the purpose of such wetlands is to retain N overall rather than to provide a specific constant standard of water quality in the outflow.

Wetlands associated with streams and rivers

Diverting part of the flow of a stream or river through a wetland, with the outflow returning to the watercourse, provides another opportunity for N saving. For obvious reasons such wetlands would mostly need to be located on the river floodplain. The inlet flow rate can be controlled so it is appropriate for the size of the wetland created and so that the ecology of the watercourse is not compromised in the section affected.

There can be other concerns in relation to the potential effects on the stream or river. An abstraction licence will almost certainly be required.

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APPENDIX 2

NATIONAL OCCUPANCY RATES RELATING TO McCARTHY & STONE DEVELOPMENTS

McCARTHY & STONE OCCUPANCY RATE SURVEY
13 AUGUST 2019

	Southern Regions			National		
	RL^	RLP*	Total	RL^	RLP*	Total
Number of developments 12 months or older	115	36	151	265	77	342
1 bedroom apartments	2,375	1,197	3,572	5,721	2,695	8,416
2 bedroom apartments	1,837	797	2,634	4,448	1,655	6,103
3 bedroom apartments	2	2	4	13	2	15
Homeowners	4,943	2,112	7,055	12,106	4,632	16,738
Average Occupancy rate	81.6%	75.5%	79.7%	82.6%	77.1%	81.0%
Average occupancy per unit	1.17	1.058	1.11	1.19	1.06	1.13

- *RLP is the brand name for Assisted Living Extra Care
- ^ RL is Retirement Living (Sheltered)

APPENDIX 3

HABITAT ASSESSMENTS RELATING TO:

**21/01398/FUL Southampton City Council Assisted Living & Care Home, 75, The
Avenue, Southampton**

19/02755/FULLS Test Valley Council Retirement Living scheme, Abbotswood

Habitats Regulations Assessment (HRA)

Application reference:	21/01398/FUL
Application address:	75 The Avenue
Application description:	Re-development of site to create a block ranging from two to four-storeys containing 66 x Assisted Living/Extra Care flats and a four-storey 80-bed Care Home with associated parking and landscaping.
HRA completion date:	15/03/2022 & Updated 10/08/2022

HRA completed by:	
Andrew Gregory Regeneration Planning Manager Southampton City Council	

Summary

The project being assessed is a the redevelopment of a car sales garage to create a block ranging from two to four-storeys containing 66 x Assisted Living/Extra Care flats and a four-storey 80-bed Care Home with associated parking and landscaping.

The development is located approximately 685m from the Solent and Dorset Coast Special Protection Area (SPA), 1.2km from the Solent and Southampton Water SPA/Ramsar site, and 2.75km from the Solent Maritime SAC. The New Forest Special Area of Conservation (SAC)/SPA/Ramsar site are approximately 8km to the west.

The site currently contains a vacant car sales garage. It is located close to European sites and as such there is potential for construction stage impacts. Concern has also been raised, that the proposed development, in-combination with other residential developments across south Hampshire, could result in recreational disturbance to the features of interest of the New Forest SPA/Ramsar site and the Solent and Southampton Water SPA/Ramsar site, and also the release of additional nitrogen, via wastewater, which could affect the features of the Solent Maritime SAC and the Solent and Southampton Water SPA/Ramsar site.

The findings of the initial assessment concluded that significant effects were possible. A detailed appropriate assessment was therefore conducted on the proposed development. Following consideration of a number of avoidance and mitigation measures designed to remove any risk of a significant effect on the identified European sites, it has been concluded that the significant effects, which are likely in association with the proposed development, can be adequately mitigated and that there will be no adverse effect on the integrity of protected sites.

Section 1 - details of the plan or project

European sites potentially impacted by plan or project:

European Site descriptions are available in Appendix I of the City Centre Action Plan's Habitats Regulations Assessment Baseline Evidence Review Report, which is on the city council's website at

- Solent and Dorset Coast Special Protection Area (SPA)
 - Solent and Southampton Water SPA
 - Solent and Southampton Water Ramsar Site
 - Solent Maritime Special Area of Conservation (SAC)
 - New Forest SAC
 - New Forest SPA
 - New Forest Ramsar site
- The River Itchen SAC was screened out of this assessment.

Is the project or plan directly connected with or necessary to the management of the site (provide details)?

No – the development consists of new supported residential, which is neither connected to, nor necessary for, the management of any European site.

Are there any other projects or plans that together with the project or plan being assessed could affect the site (provide details)?

- Southampton Core Strategy (amended 2015) (<http://www.southampton.gov.uk/policies/Amended-Core-Strategy-inc-CSPR-%20Final-13-03-2015.pdf>)
- City Centre Action Plan (<http://www.southampton.gov.uk/planning/planning-policy/adopted-plans/city-centre-action-plan.aspx>)
- South Hampshire Strategy (http://www.push.gov.uk/work/housing-and-planning/south_hampshire_strategy.htm)

The PUSH Spatial Position Statement plans for 104,350 net additional homes, 509,000 sq. m of office floorspace and 462,000 sq. m of mixed B class floorspace across South Hampshire and the Isle of Wight between 2011 and 2034.

Southampton aims to provide a total of 15,610 net additional dwellings across the city between 2016 and 2035 as set out in the Amended Core Strategy.

Whilst the dates of the two plans do not align, it is clear that the proposed development is part of a far wider reaching development strategy for the South Hampshire sub-region which will result in an increase in population and economic activity.

Regulations 62 and 68 of the Conservation of Habitats and Species Regulations 2017 (as amended) (the Habitats Regulations) are clear that the assessment provisions, i.e. Regulations 63 and 64 of the same regulations, apply in relation to granting planning permission on an application under Part 3 of the TCPA 1990. The assessment below constitutes the city council's assessment of the implications of the development described above on the identified European sites, as required under Regulation 63 of the Habitats Regulations.

Section 2 - Assessment of implications for European sites

Test 1: the likelihood of a significant effect

- This test is to determine whether or not any possible effect could constitute a significant effect on a European site as set out in Regulation 63(1) (a) of the Habitats Regulations.

The proposed development is located approximately 685m from the Solent and Dorset Coast Special Protection Area (SPA), 1.2km to the west of a section of the Solent and Southampton Water SPA whilst the New Forest SAC, SPA and Ramsar site are approximately 8km to the West.

A full list of the qualifying features for each site is provided at the end of this report. The development could have implications for these sites which could be permanent arising from the construction and operational phases of the development.

The following adverse effects arising from the proposed development have been identified:

- Contamination and deterioration in surface water quality from mobilisation of contaminants.
- An increase in air pollution as a result of construction activities.
- An increase in recreational disturbance to the European Sites as a result of the residential extra care flats.
- An increase in nitrogen discharge via Wastewater Treatment Works (WwTW) into Solent European Site catchments.

The following mitigation measures have been proposed as part of the development:

Construction phase:

- Provision of a Construction Environmental Management Plan.
- Use of quiet construction methods e.g. replacement piling rather than displacement piling, where feasible;
- Further site investigations and a remediation strategy for any soil and groundwater contamination present on the site.

Operational phase:

- A contribution of £32,327 towards the Solent Recreation Mitigation Partnership;
- Information on public transport plus pedestrian and cycle route maps will be provided.
- Landscape enhancements and additional tree planting
- Sustainable drainage features including green roofs, permeable surfacing and petrol interceptors on drains.

Conclusions regarding the likelihood of a significant effect

This is to summarise whether or not there is a likelihood of a significant effect on a European site as set out in Regulation 61(1)(a) of the Habitats Regulations.

The project being assessed would lead to the provision of 66 x Assisted Living/Extra Care flats and a four-storey 80-bed Care Home approximately 1.2km from the Solent and Southampton Water Special Protection Area (SPA)/Ramsar site, 2.75km from the Solent Maritime SAC and 8km from the New Forest Special Area of Conservation (SAC)/SPA/Ramsar site.

The site is a former car sales garage. It is located a significant distance from the European sites and as such construction stage impacts will not occur. Concern has been raised however, that the proposed development, in-combination with other residential

developments across south Hampshire, could result in recreational disturbance to the features of interest of the New Forest SPA/Ramsar site and the Solent and Southampton Water SPA/Ramsar site. In addition, waste water generated by the development could result in the release of nitrogen and phosphate into the Solent leading to adverse impacts on features of the Solent Maritime SAC and the Solent and Southampton Water SPA/Ramsar site.

The applicant has provided details of several avoidance and mitigation measures which are intended to reduce the identified impacts. However, without more detailed analysis, it is not possible to determine whether the proposed measures are sufficient to reduce the identified impacts to a level where they could be considered not to result in a significant effect on the identified European sites. Overall, there is the potential for permanent impacts which could be at a sufficient level to be considered significant. As such, a full appropriate assessment of the implications for the identified European sites is required before the scheme can be authorised.

Test 2: an appropriate assessment of the implications of the development for the identified European sites in view of those sites' conservation objectives

The analysis below constitutes the city council's assessment under Regulation 61(1) of the Habitats Regulations

The identified potential effects are examined below to determine the implications for the identified European sites in line with their conservation objectives and to assess whether the proposed avoidance and mitigation measures are sufficient to remove any potential impact.

In order to make a full and complete assessment it is necessary to consider the relevant conservation objectives. These are available on Natural England's web pages at <http://publications.naturalengland.org.uk/category/6528471664689152>.

The conservation objective for Special Areas of Conservation is to, "Avoid the deterioration of the qualifying natural habitats and the habitats of qualifying species, and the significant disturbance of those qualifying species, ensuring the integrity of the site is maintained and the site makes a full contribution to achieving Favourable Conservation Status of each of the qualifying features."

The conservation objective for Special Protection Areas is to, "Avoid the deterioration of the habitats of the qualifying features, and the significant disturbance of the qualifying features, ensuring the integrity of the site is maintained and the site makes a full contribution to achieving the aims of the Birds Directive."

Ramsar sites do not have a specific conservation objective however, under the National Planning Policy Framework (NPPF), they are considered to have the same status as European sites.

TEMPORARY, CONSTRUCTION PHASE EFFECTS

Air quality

Demolition and construction works have the potential to generate coarse and fine dust and exhaust emissions. Whilst the application site is located more than 1.2km from the nearest designated site, and no adverse impacts are likely, measures to control dust emissions will be used. Examples include, spraying water on surfaces to reduce dust, and appropriate standard operating procedures will be outlined within a CEMP

Disturbance

During demolition and construction work noise and vibration have the potential to cause adverse impacts to bird species present within the SPA/Ramsar Site. Activities most likely to generate these impacts include piling.

Sites considered: Solent and Southampton Water SPA/Ramsar site

The application site is located approximately 1.2km from the Solent and Southampton Water SPA. The distance between the development and the designated site is substantial and it is considered that sound levels at the designated site will be negligible. The only likely source of noise impact is piling. The sudden, sharp noise of percussive piling will stand out from the background noise and has the potential to cause birds on the inter-tidal area to cease feeding or even fly away. This in turn leads to a reduction in the birds' energy intake and/or expenditure of energy which can affect their survival.

Piling impact can be mitigated by the use of Continuous Flight Auger (CFA) method which has lower noise levels when compared to percussive methods. Where percussive piling can't be avoided, techniques such as soft start, which involves a steady build up to full energy, and use of wooden blocks can help to reduce sound levels.

Construction work will use the quietest piling methodology that is appropriate. Where percussive piling needs to be employed, additional methods to reduce sound levels will be applied.

Collision risk

Sites considered: Solent and Southampton Water SPA/Ramsar, Solent and Dorset Coast SPA

Demolition and construction operations will involve the use of tower cranes however, these are likely to be similar in scale to those used by existing active port operations in close proximity to the site to which birds are likely to be habituated. In addition, mapping undertaken for the Southampton Bird Flight Path Study 2009 demonstrated that the majority of flights by waterfowl occurred over the water and as a result collision risk with construction cranes or other infrastructure is not predicted to pose a threat to the species from the designated sites.

PERMANENT, OPERATIONAL EFFECTS.

Air quality

The proposal will result in a net loss of vehicular trips when assessed against the existing car sales garage use. Detailed dispersion modelling of traffic pollutants has been undertaken for the proposed development. An operational year assessment for 2022 traffic emissions has been undertaken to assess the effects of the Proposed

Development. The impacts during the operational phase take into account exhaust emissions from additional road traffic generated due to the proposed development.

The long-term (annual) assessment of the effects associated with the proposed development with respect to Nitrogen Dioxide (NO₂) is determined to be 'negligible'. With respect to PM₁₀ and PM_{2.5} exposure, the effect is determined to be 'negligible' at all identified existing sensitive receptor locations. All proposed receptor locations are expected to be exposed to air quality below the Air Quality Objectives for NO₂, PM₁₀ and PM_{2.5}.

On the basis of the above, no further assessment of ecological receptors is considered to be necessary. The Proposed Development, alone and in-combination, is unlikely to result in air quality impacts that are perceptible or significant.

Recreational disturbance

Human disturbance of birds, which is any human activity which affects a bird's behaviour or survival, has been a key area of conservation concern for a number of years. Examples of such disturbance, identified by research studies, include birds taking flight, changing their feeding behaviour or avoiding otherwise suitable habitat. The effects of such disturbance range from a minor reduction in foraging time to mortality of individuals and lower levels of breeding success.

New Forest SPA/Ramsar site/ New Forest SAC

Although relevant research, detailed in Sharp et al 2008, into the effects of human disturbance on interest features of the New Forest SPA/Ramsar site, namely nightjar, *Caprimulgus europaeus*, woodlark, *Lullula arborea*, and Dartford warbler *Sylvia undata*, was not specifically undertaken in the New Forest, the findings of work on the Dorset and Thames Basin Heaths established clear effects of disturbance on these species.

Nightjar

Higher levels of recreational activity, particularly dog walking, has been shown to lower nightjar breeding success rates. On the Dorset Heaths nests close to footpaths were found to be more likely to fail as a consequence of predation, probably due to adults being flushed from the nest by dogs allowing predators access to the eggs.

Woodlark

Density of woodlarks has been shown to be limited by disturbance with higher levels of disturbance leading to lower densities of woodlarks. Although breeding success rates were higher for the nest that were established, probably due to lower levels of competition for food, the overall effect was approximately a third fewer chicks than would have been the case in the absence of disturbance.

Dartford warbler

Adverse impacts on Dartford warbler were only found to be significant in heather dominated territories where high levels of disturbance increased the likelihood of nests near the edge of the territory failing completely. High disturbance levels were also shown to stop pairs raising multiple broods.

In addition to direct impacts on species for which the New Forest SPA/Ramsar site is designated, high levels of recreation activity can also affect habitats for which the New Forest SAC is designated. Such impacts include trampling of vegetation and compaction of soils which can lead to changes in plant and soil invertebrate communities, changes in soil hydrology and chemistry and erosion of soils.

Visitor levels in the New Forest

The New Forest National Park attracts a high number of visitors, calculated to be 15.2 million annually in 2017 and estimated to rise to 17.6 million visitor days by 2037 (RJS Associates Ltd., 2018). It is notable in terms of its catchment, attracting a far higher proportion of tourists and non-local visitors than similar areas such as the Thames Basin and Dorset Heaths.

Research undertaken by Footprint Ecology, Liley et al (2019), indicated that 83% of visitors to the New Forest were making short visits directly from home whilst 14% were staying tourists and a further 2% were staying with friends or family. These proportions varied seasonally with more holiday makers (22%) and fewer day visitors (76%), in the summer than compared to the spring (12% and 85% respectively) and the winter (11% and 86%). The vast majority of visitors travelled by car or other motor vehicle and the main activities undertaken were dog walking (55%) and walking (26%).

Post code data collected as part of the New Forest Visitor Survey 2018/19 (Liley et al, 2019) revealed that 50% of visitors making short visits/day trips from home lived within 6.1km of the survey point, whilst 75% lived within 13.8km; 6% of these visitors were found to have originated from Southampton.

The application site is located 4.8km from the nearest part of the New Forest SPA and Ramsar site and 2.6km from the National Park boundary in terms of linear distance and as such, residents of the proposed development would appear to fall into the category of local day visitors. Whilst car ownership is likely to be lower on the site with less than 1 space per dwelling than it would be within suburban developments, and this is a key limitation when it comes to be able to access the New Forest, there are still alternative travel means including the train, bus, ferry and bicycle. As a consequence, there is a risk that recreational disturbance could occur as a result of the development. Mitigation measures will therefore be required.

Mitigation

A number of potential mitigation measures are available to help reduce recreational impacts on the New Forest designated sites, these include:

Access management within the designated sites;
Alternative recreational greenspace sites and routes outside the designated sites;
Education, awareness and promotion

Officers consider a combination of measures will be required to both manage visitors once they arrive in the New Forest, including influencing choice of destination and behaviour, and by deflecting visitors to destinations outside the New Forest.

The New Forest Visitor Study (2019) asked visitors questions about their use of other recreation sites and also their preferences for alternative options such as a new country park or improved footpaths and bridleways. In total 531 alternative sites were mentioned including Southampton Common which was in the top ten of alternative sites. When asked whether they would use a new country park or improved footpaths/bridleways 40% and 42% of day visitors respectively said they would whilst 21% and 16% respectively said they were unsure. This would suggest that alternative recreation sites can act as suitable mitigation measures, particularly as the research indicates that the number of visits made to the New Forest drops the further away people live.

The top features that attracted people to such sites (mentioned by more than 10% of interviewees) included: Refreshments (18%); Extensive/good walking routes (17%); Natural, 'wild', with wildlife (16%); Play facilities (15%); Good views/scenery (14%); Woodland (14%); Toilets (12%); Off-lead area for dogs (12%); and Open water (12%). Many of these features are currently available in Southampton's Greenways and semi-natural greenspaces and, with additional investment in infrastructure, these sites would be able to accommodate more visitors.

75 The Avenue is located on the edge of the City Centre and is within easy reach of a number of semi-natural sites including Southampton Common, the Central Parks and the four largest greenways: Lordswood, Lordsdale, Shoreburs and Weston. The greenway sites can be accessed via cycle routes and public transport, provide extended opportunities for walking and connections into the wider countryside. In addition, a number of other semi-natural sites including Peartree Green Local Nature Reserve (LNR), Frogs Copse and Riverside Park are also available.

The City Council has committed to ring fencing 4% of CIL receipts to cover the cost of upgrading the footpath network within the city's greenways. This division of the ring fenced CIL allocation is considered to be appropriate based on the relatively low proportion of visitors, around 6%, recorded originating from Southampton. At present, schemes to upgrade the footpaths on Peartree Green Local Nature Reserve (LNR) and the northern section of the Shoreburs Greenway are due to be implemented within the next twelve months, ahead of occupation of this development. Officers consider that these improvement works will serve to deflect residents from visiting the New Forest.

Discussions have also been undertaken with the New Forest National Park Authority (NFNPA) since the earlier draft of this Assessment to address impacts arising from visitors to the New Forest. The NFNPA have identified a number of areas where visitors from Southampton will typically visit including locations in the eastern half of the New Forest, focused on the Ashurst, Deerleap and Longdown areas of the eastern New Forest, and around Brook and Fritham in the northeast and all with good road links from Southampton. They also noted that visitors from South Hampshire (including Southampton) make up a reasonable proportion of visitors to central areas such as Lyndhurst, Rhinefield, Hatchet Pond and Balmer Lawn (Brockenhurst). The intention, therefore, is to make available the remaining 1% of the ring-fenced CIL monies to the NFNPA to be used to fund appropriate actions from the NFNPA's Revised Habitat

Mitigation Scheme SPD (July 2020) in these areas. An initial payment of £73k from extant development will be paid under the agreed MoU towards targeted infrastructure improvements in line with their extant Scheme and the findings of the recent visitor reports. This will be supplemented by a further CIL payment from the Leisure World development with these monies payable after the approval of the Reserved Matters applications but ahead of the occupation of the development to enable impacts to be properly mitigated.

The NFNPA have also provided assurance that measures within the Mitigation Scheme are scalable, indicating that additional financial resources can be used to effectively mitigate the impacts of an increase in recreational visits originating from Southampton in addition to extra visits originating from developments within the New Forest itself both now and for the lifetime of the development

Funding mechanism

A commitment to allocate CIL funding has been made by Southampton City Council. The initial proposal was to ring fence 5% of CIL receipts for measures to mitigate recreational impacts within Southampton and then, subsequently, it was proposed to use 4% for Southampton based measures and 1% to be forwarded to the NFNPA to deliver actions within the Revised Habitat Mitigation Scheme SPD (July 2020). To this end, a Memorandum of Understanding between SCC and the NFNPA, which commits both parties to,

“work towards an agreed SLA whereby monies collected through CIL in the administrative boundary of SCC will be released to NFNPA to finance infrastructure works associated with its Revised Habitat Mitigation Scheme SPD(July 2020), thereby mitigating the direct impacts from development in Southampton upon the New Forest’s international nature conservation designations in perpetuity.”

has been agreed.

The Revised Mitigation Scheme set out in the NFNPA SPD is based on the framework for mitigation originally established in the NFNPA Mitigation Scheme (2012). The key elements of the Revised Scheme to which CIL monies will be released are:

- Access management within the designated sites;
- Alternative recreational greenspace sites and routes outside the designated sites;
- Education, awareness and promotion;
- Monitoring and research; and
- In perpetuity mitigation and funding.

At present there is an accrued total, dating back to 2019, of £73,239.81 to be made available as soon as the SLA is agreed. This will be ahead of the occupation of this caredevelopment.

Provided the approach set out above is implemented, an adverse impact on the integrity of the protected sites will not occur.

Solent and Southampton Water SPA/Ramsar site

In 2008 the Council adopted the Solent Disturbance Mitigation Project's mitigation scheme, in collaboration with other Councils within the Partnership for Urban South Hampshire, in order to mitigate the effects of new residential development on the Solent and Southampton Water SPA and Ramsar site. This enables financial contributions to be made by developers to fund appropriate mitigation measures. The level of mitigation payment required is linked to the number of bedrooms within the properties.

The development could result in a net increase in the city’s population. There is therefore the risk that the development, in-combination with other residential developments across south Hampshire, could lead to recreational impacts upon the Solent and Southampton Water SPA. The likelihood of recreational impacts occurring is clearly linked to residents’ ability to access the coast. Results from the Solent Disturbance & Mitigation Project visitor survey, Fearnley, H., Clarke, R. T. & Liley, D. (2011), indicated that 52% of visitors arrived by car. Consequently, residents occupying flats without car parking will have a reduced likelihood of visiting the coast. It is therefore considered to be acceptable to reduce the contribution level to 50%. Calculations of the SRMP contribution for the development are shown below.

Size of Unit	Scale of Mitigation per Unit	Number of units	Total
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Studio car free			
1 Bedroom	£390	11	£4,290
1 Bedroom – car free	£390/2	30	£5,850
2 Bedroom	£563	25	£14,075
2 Bedroom – car free			
Care Home - car free	£1,014 / 2	80 rooms/5	£8,112
	Total	67	£32,327

It is considered that, subject to a level of mitigation, which has been calculated as a total of £32,327, being secured through a legal agreement, appropriate and effective mitigation measures will have been secured to ensure that effects associated with disturbance can be satisfactorily removed. The applicant has agreed to enter into a legal agreement to this effect.

Water quality

In their letter date 6th September 2018, Natural England highlighted concerns regarding, “high levels of nitrogen and phosphorus input to the water environment in the Solent with evidence that these nutrients are causing eutrophication at internationally designated sites.”

Eutrophication is the process by which excess nutrients are added to a water body leading to rapid plant growth. In the case of the Solent Maritime SAC and the Solent and Southampton Water SPA/Ramsar site the problem is predominately excess nitrogen arising from farming activity, waste water treatment works discharges and urban run-off.

Features of Solent Maritime SAC and Solent and Southampton Water SPA/Ramsar site that are vulnerable to increases in nitrogen levels are coastal grazing marsh, inter-tidal mud and seagrass.

Evidence of eutrophication impacting the Solent Maritime SAC and Solent and Southampton Water SPA/Ramsar site has come from the Environment Agency data covering estimates of river flow, river quality and also data on WwTW effluent flow and quality.

An Integrated Water Management Study for South Hampshire, commissioned by the Partnership for Urban South Hampshire (PUSH) Authorities, examined the delivery of development growth in relation to legislative and government policy requirements for designated sites and wider biodiversity. This work has identified that there is uncertainty in some locations as to whether there will be enough capacity to accommodate new housing

growth. There is uncertainty about the efficacy of catchment measures to deliver the required reductions in nitrogen levels, and/or whether the upgrades to waste water treatment works will be enough to accommodate the quantity of new housing proposed. Considering this, Natural England have advised that a nitrogen budget is calculated for larger developments.

A methodology provided by Natural England has been used to calculate a nutrient budget and the full workings are provided in Appendix 1. The calculations conclude that there is a predicted Total Nitrogen surplus arising from the development of 54.20kg/TN/yr. This is based on the additional population from the residential units using 110litres of waste water per person per day.

With respect to the submitted calculations: The Care Home is for 80 beds and the calculation has assumed a 100% occupancy rate. The fact is that this is unlikely to be the case, but a 100% occupancy has been utilised on the basis of the precautionary principle.

With regards to the Assisted Living Accommodation, 'The national occupancy rate per unit is 1.06 and in the Southern Region which spans from Cornwall to Kent it is 1.058 per unit.'. However utilising the precautionary principle the upper figure has been increased by approximately 13% to 1.2 persons. A rate already accepted by NE at Romsey. And last but not least, again on the basis of the precautionary principle, the Nitrogen Calculator automatically increases the calculated nitrates figure by 20% as a precautionary buffer.

Based on the above, the Nitrogen Budget was calculated as 54.20 Kg/Tn/Yr.

Due to the nature of the site, and the surrounding urban environment, there are no further mitigation options on site. As such the applicants have agreed to purchase sufficient credits from Test Valley Borough Council in partnership with Roke Manor Farm or directly from Roke Manor Farm to offset the 54.20 kg/N/yr nitrates identified in the nitrogen budget, prior to first occupation of the development and this will be secured by a grampian planning condition:

No occupation of each parcel of the development hereby approved shall take place until the Council has received and agreed written evidence that the applicant has purchased sufficient credits from Test Valley Borough Council in partnership with Roke Manor Farm or directly from Roke Manor Farm to offset the [54.2 kg/N/yr nitrates] identified in the budget and the HRA from the development.

Within the McCarthy & Stone extra care facility there will be a single bedroom for use by the relevant staff member on duty/call, and this bedroom is not included in the nitrogen budget. The Local Planning Authority, as competent authority, is satisfied that this room is for staff use and as such would not constitute accommodation which results in a net increase in population

The Local Planning Authority as component authority accepts the applicant's bespoke occupancy calculations given the nature of this care development.

Collision risk

Sites considered: Solent and Dorset Coast SPA and Solent and Southampton Water SPA

The proposed development does not include tall buildings and the blocks range in scale from 2-4 storeys in height and are comparable in height to other buildings in the area. As mentioned in respect of construction stage impacts, the Southampton Bird Flight Path Study 2009 demonstrated that the majority of flights by waterfowl occurred over the water and as a result collision risk from the buildings is not predicted to pose a significant threat to the species from the designated sites.

Conclusions regarding the implications of the development for the identified European sites in view of those sites' conservation objectives

Conclusions

The following conclusions can be drawn from the evidence provided:

- There is potential for a number of impacts, including noise disturbance and mobilisation of contaminants, to occur at the demolition and construction stage.
- Increased levels of recreation activity could affect the Solent and Southampton Water SPA/Ramsar site and the New Forest/SAC/SPA/Ramsar site.
- Water quality within the Solent and Southampton Water SPA/Ramsar site could be affected by release of nitrates contained within waste-water.
- There is a low risk of birds colliding with the proposed tall buildings.

The following mitigation measures have been proposed as part of the development:

Construction phase:

- Provision of a Construction Environmental Management Plan.
- Use of quiet construction methods e.g., replacement piling rather than displacement piling, where feasible.
- Further site investigations and a remediation strategy for any soil and groundwater contamination present on the site.

Operational phase:

- 4% of CIL contributions, will be ring fenced for footpath improvements in the Shoreburs and Lordsdale Greenways and Peartree Green Local Nature Reserve;
- 1% of CIL contributions, will be allocated to the New Forest National Park Authority Habitat Mitigation Scheme;
- A contribution of £32,327 towards the Solent Recreation Mitigation Partnership;
- Information on public transport plus pedestrian and cycle route maps will be provided.
- 30 of the extra care flats and all care home rooms will be car free for occupiers.
- Credits to be purchased from Test Valley Borough Council in partnership with Roke Manor Farm or directly from Roke Manor Farm to offset the 54.2 kg/N/yr nitrates identified in the nitrogen budget, prior to first occupation of the development.
- Building design features including avoidance of large areas of glass and use of design measures such as non-reflective frosting of glass, interior artwork, non-reflective one way glass, balconies, vegetated facades and angled windows (40 degrees);
- Sustainable drainage features including green roofs, permeable surfacing and petrol interceptors on drains.

It can therefore be concluded that, subject to the implementation of the identified mitigation measures, significant effects arising from construction activities, air quality impacts, recreational disturbance, and collision risk will not occur. As a result of the mitigation measures detailed above, when secured through planning obligations and conditions, officers are able to conclude that there will be no adverse impacts upon the integrity of European and other protected sites in the Solent and New Forest arising from this development.

References

Fearnley, H., Clarke, R. T. & Liley, D. (2011). The Solent Disturbance & Mitigation Project. Phase II – results of the Solent household survey. ©Solent Forum / Footprint Ecology.

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.

Liley, D., Panter, C., Caals, Z., & Saunders, P. (2019) Recreation use of the New Forest SAC/SPA/Ramsar: New Forest Visitor Survey 2018/19. Unpublished report by Footprint Ecology.

Liley, D. & Panter, C. (2020). Recreation use of the New Forest SAC/SPA/Ramsar: Results of a telephone survey with people living within 25km. Unpublished report by Footprint Ecology.

European Site Qualifying Features

The New Forest SAC

The New Forest SAC qualifies under Article 3 of the Habitats Directive by supporting the following Annex I habitats:

- Oligotrophic waters containing very few minerals of sandy plains (Littorelletalia uniflorae) (primary reason for selection)
- Oligotrophic to mesotrophic standing waters with vegetation of the Littorelletea uniflorae and/or of the Isoëto-Nanojuncetea (primary reason for selection)
- Northern Atlantic wet heaths with Erica tetralix (primary reason for selection)
- European dry heaths (primary reason for selection)
- Molinia meadows on calcareous, peaty or clayey-silt laden soils (Molinion caeruleae) (primary reason for selection)
- Depressions on peat substrates of the Rhynchosporion (primary reason for selection)
- Atlantic acidophilous beech forests with Ilex and sometimes also Taxus in the shrub layer
- (Quercion roburi-petraeae or Ilici-Fagenion) (primary reason for selection)
- Asperulo-Fagetum beech forests (primary reason for selection)
- Old acidophilous oak woods with Quercus robur on sandy plains (primary reason for selection)
- Bog woodland (primary reason for selection)
- Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae,
- Salicion albae) (primary reason for selection)
- Transition mires and quaking bogs
- Alkaline fens

The New Forest SAC qualifies under Article 3 of the Habitats Directive by supporting the following Annex II species:

- Southern Damselfly Coenagrion mercurial (primary reason for selection)
- Stag Beetle Lucanus cervus (primary reason for selection)
- Great Crested Newt Triturus cristatus

The New Forest SPA

The New Forest SPA qualifies under Article 4.1 of the Birds Directive by supporting breeding populations of European importance of the following Annex I species:

- Dartford Warbler Sylvia undata
- Honey Buzzard Pernis apivorus
- Nightjar Caprimulgus europaeus
- Woodlark Lullula arborea

The SPA qualifies under Article 4.2 of the Birds Directive by supporting overwintering populations of European importance of the following migratory species:

- Hen Harrier *Circus cyaneus*

New Forest Ramsar Site

The New Forest Ramsar site qualifies under the following Ramsar criteria:

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

Solent Maritime SAC

The Solent Maritime SAC qualifies under Article 3 of the Habitats Directive by supporting the following Annex I habitats:

- Estuaries (primary reason for selection)
- *Spartina* swards (*Spartina maritima*) (primary reason for selection)
- Atlantic salt meadows (*Glauco-Puccinellietalia maritima*) (primary reason for selection)
- Sandbanks which are slightly covered by sea water all the time
- Mudflats and sandflats not covered by seawater at low tide
- Coastal lagoons
- Annual vegetation of drift lines
- Perennial vegetation of stony banks
- *Salicornia* and other annuals colonising mud and sand
- Shifting dunes along the shoreline with *Ammophila arenaria* ("white dunes")

Solent Maritime SAC qualifies under Article 3 of the Habitats Directive by supporting the following Annex II species:

- Desmoulin's whorl snail *Vertigo moulinsiana*

Solent and Southampton Water SPA

Solent and Southampton Water SPA qualifies under Article 4.1 of the Birds Directive by supporting breeding populations of European importance of the following Annex I species:

- Common Tern *Sterna hirundo*
- Little Tern *Sterna albifrons*
- Mediterranean Gull *Larus melanocephalus*

- Roseate Tern *Sterna dougallii*
- Sandwich Tern *Sterna sandvicensis*

The SPA qualifies under Article 4.2 of the Birds Directive by supporting overwintering populations of European importance of the following migratory species:

- Black-tailed Godwit *Limosa limosa islandica*
- Dark-bellied Brent Goose *Branta bernicla bernicla*
- Ringed Plover *Charadrius hiaticula*
- Teal *Anas crecca*

The SPA also qualifies under Article 4.2 of the Birds Directive by regularly supporting at least 20,000 waterfowl, including the following species:

- 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 tetanus*
- 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*

Solent and Southampton Water Ramsar Site

The Solent and Southampton Water Ramsar site qualifies under the following Ramsar criteria:

- 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 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: A mean peak count of waterfowl for the 5 year period of 1998/99 – 2002/2003 of 51,343
- Ramsar criterion 6: The site regularly supports more than 1% of the individuals in a population for the following species: Ringed Plover *Charadrius hiaticula*, Dark-bellied Brent Goose *Branta bernicla bernicla*, Eurasian Teal *Anas crecca* and Black-tailed Godwit *Limosa limosa islandica*.

Appendix 1 Nutrient Budget

Calculation using water rate of 110 litres waste water per person per day

Step	Measurement	Value	Unit	Explanation
Development Proposal	Development types that would increase the population served by a wastewater system	67	Residential care dwellings	66 extra care flats and 1 care home
Step 1	Additional Population	160.8	Persons	Based on the residential mix and forecasted occupancy for this care development
Step 2	Wastewater volume generated by development	17,688	Litres/ day	160.8 personsx 110 litres
Step 3	Receiving WWTW environmental permit limit for TN	10	Mg/l TN	
Step 4	TN discharged after WWTW	118,800	Mg/TN/day	
	Convert mg/TN to kg/TN per day	0.11.85	Kg/TN/day	Divide by 1,000,000
	Convert kg/TN per day to kg/TN per year	43.36		x 365 days
Wastewater r total nitrogen load	43.36 kg/TN/yr			
Net N from land use change	0kg			
Precautionary buffer	8.67 kg/TN/yr			
Total	54.2 kg/TN/yr			

Test Valley Borough Council

Habitat Regulation Assessment (HRA)

Screening Matrix and Appropriate Assessment Statement

PLEASE NOTE: Undertaking the HRA process is the responsibility of the decision maker as the **Competent Authority for the purpose of the Habitats Regulations. However, it is the responsibility of the applicant to provide the Competent Authority with the information that they require for this purpose.**

HRA drafting date:	7 th May 2021
HRA completion date:	2 nd June 2021
Application reference:	19/02755/FULLS
Application address:	Land At Abbotswood Local Centre, Abbotswood Common Road, Romsey, Hampshire
Application description:	Erection of 36 retirement apartments, communal facilities, and parking
Lead Planning Officer:	Paul Goodman
Please note that all references in this assessment to the 'Habitats Regulations' refer to The Conservation of Habitats and Species Regulations 2017 (as amended).	

Stage 1 - details of the plan or project	
European site potentially impacted by planning application, plan or project:	- New Forest SPA - Solent and Southampton Water SPA - Solent and Southampton Water Ramsar - Solent Maritime SAC - Solent and Dorset Coast SPA
Is the planning application directly connected with or necessary to the management of the site (if yes, Applicant should have provided details)?	No. - The development proposal is for an increase in residential dwellings. This is neither connected to nor necessary to the management of any European site.
Are there any other projects or plans that together with the planning application being assessed could affect the site?	Yes. - All new housing development that results in waste water entering The Solent is considered to contribute towards an impact on the integrity of these sites as a result of increased nitrates, and resulting eutrophication and impacts to conservation interests, when considered in combination with other development within river catchments flowing into The Solent. - All new housing development in Test Valley within 13.6km¹ of the <u>New Forest SPA site</u>, as well as development in other local planning authority areas, are considered to contribute towards an impact on site integrity as a result of increased recreational

¹ A map indicating the extent of this area is available at: <http://www.testvalley.gov.uk/assets/attach/2424/pt4-1-141001-NF-Interim-Framework-website.pdf>

	disturbance in combination with other development in this zone.
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Stage 2 - HRA screening assessment

Screening under Regulation 63(1)(a) of the Habitats Regulations – The Applicant to provide evidence so that a judgement can be made as to whether there could be any potential significant impacts of the development on the integrity of the relevant designated sites listed above.

Solent and Southampton Water SPA – Solent Neutrality

There is existing evidence of high levels of nitrogen and phosphorus in the water environment across the Solent, with evidence of eutrophication at some designated sites. An Integrated Water Management Study for South Hampshire was commissioned by the Partnership for Urban South Hampshire (PUSH) Authorities to examine the delivery of development growth in relation to legislative and government policy requirements for designated sites and wider biodiversity. This work has identified that there is uncertainty regarding whether any new housing development does not contribute to net increases in nutrients entering these designated sites.

As such, the emerging advice from Natural England is that the applicants for development proposals resulting in a net increase in dwellings are required to submit the nitrogen budget for the development to demonstrate no likely significant effect on the European designated sites due to the increase in waste water from the new housing.

With respect to the current application, the applicant has submitted information that the nutrient budget for the proposal is as follows:

Stage 1 Calculate total Nitrogen in kg per year derived from the development that would exit the Wastewater Treatment Works (WwTW) into Solent catchments after treatment

Step 1 Calculate additional population

Enter the number of units proposed	18
Net population increase per housing unit	2.40
<i>Total net population increase generated by the development</i>	43.20

Step 2 Calculate wastewater volume generated by the development

Water use in litres per person per day	110
<i>Total wastewater volume generated by the development (litres per day)</i>	4,752

Step 3 Confirm receiving WwTW and permit limit

Select the wastewater treatment works the development will connect to	Fullerton
<i>Wastewater treatment works' permit limit (mg per litre)</i>	27.0
<i>Wastewater treatment works' discharge level (mg per litre)</i>	27.0

Step 4 Calculate total nitrogen in kg per year discharged by the WwTW

<i>Deduct acceptable Nitrogen loading in wastewater (mg per litre)</i>	25.0
<i>Total Nitrogen discharged by WwTW (mg per day)</i>	118,800.0
<i>Total Nitrogen discharged by WwTW (kg per day)</i>	0.1188
<i>Total Nitrogen discharged by WwTW (kg per year)</i>	43.4

Stage 2 Calculate existing (pre-development) nitrogen from current land use of the development site

Step 1 Total area of development site

Enter the total area of the development site (hectares)	0.27
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Step 2 Identify current land uses of the development site

Enter area currently used for urban development (hectares)	0.27
Enter area currently used for open space / greenfield (hectares)	0.00
Enter area currently used for woodland (hectares)	0.00
Enter area currently used for community food growing / catchment average (hectares)	0.00
Enter area currently used for cereals (hectares)	0.00
Enter area currently used for dairy (hectares)	0.00
Enter area currently used for general cropping (hectares)	0.00
Enter area currently used for horticulture (hectares)	0.00
Enter area currently used for pig farming (hectares)	0.00
Enter area currently used for lowland grazing (hectares)	0.00
Enter area currently used for mixed farming (hectares)	0.00
Enter area currently used for poultry farming (hectares)	0.00
<i>Check to help ensure that sum total of land uses in Step 2 equals site area in Step 1</i>	0.3

Step 3 Calculate nitrogen load from current land usage

<i>Total Nitrogen load from current land usage (kg per year)</i>	3.9
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Stage 3 Calculate nitrogen load for the non-built land uses proposed for the development site															
Step 1	Identify proposed land uses of the development site														
	<table border="1"> <tr> <td>Enter the total urban area to be created (hectares)</td> <td>0.27</td> </tr> <tr> <td>Enter the total designated open space / SANG area to be created (hectares)</td> <td>0.00</td> </tr> <tr> <td>Enter the total nature reserve area to be created (hectares)</td> <td>0.00</td> </tr> <tr> <td>Enter the total woodland area to be created (hectares)</td> <td>0.00</td> </tr> <tr> <td>Enter the total community orchard area to be created (hectares)</td> <td>0.00</td> </tr> <tr> <td>Enter the total community food growing / allotment area to be created (hectares)</td> <td>0.00</td> </tr> <tr> <td>Check to help ensure that sum total of proposed land uses equals site area in Stage 2</td> <td>0.27</td> </tr> </table>	Enter the total urban area to be created (hectares)	0.27	Enter the total designated open space / SANG area to be created (hectares)	0.00	Enter the total nature reserve area to be created (hectares)	0.00	Enter the total woodland area to be created (hectares)	0.00	Enter the total community orchard area to be created (hectares)	0.00	Enter the total community food growing / allotment area to be created (hectares)	0.00	Check to help ensure that sum total of proposed land uses equals site area in Stage 2	0.27
Enter the total urban area to be created (hectares)	0.27														
Enter the total designated open space / SANG area to be created (hectares)	0.00														
Enter the total nature reserve area to be created (hectares)	0.00														
Enter the total woodland area to be created (hectares)	0.00														
Enter the total community orchard area to be created (hectares)	0.00														
Enter the total community food growing / allotment area to be created (hectares)	0.00														
Check to help ensure that sum total of proposed land uses equals site area in Stage 2	0.27														
Step 2	Calculate total Nitrogen load from proposed land uses														
	<table border="1"> <tr> <td>Total Nitrogen load from future land uses (kg per year)</td> <td>3.86</td> </tr> </table>	Total Nitrogen load from future land uses (kg per year)	3.86												
Total Nitrogen load from future land uses (kg per year)	3.86														

Stage 4 Calculate the net change in Nitrogen load from the proposed development			
Step 1	Identify Nitrogen load from wastewater (Stage 1)		
	<table border="1"> <tr> <td>Nitrogen leaving wastewater treatment works (kg per year)</td> <td>43.36</td> </tr> </table>	Nitrogen leaving wastewater treatment works (kg per year)	43.36
Nitrogen leaving wastewater treatment works (kg per year)	43.36		
Step 2	Calculate net change in Nitrogen load from land use changes		
	<table border="1"> <tr> <td>Total Nitrogen load from future land use (kg per year)</td> <td>0.00</td> </tr> </table>	Total Nitrogen load from future land use (kg per year)	0.00
Total Nitrogen load from future land use (kg per year)	0.00		
Step 3	Calculate total Nitrogen budget for the development site		
	<table border="1"> <tr> <td>Nitrogen budget for the site (kg per year)</td> <td>43.36</td> </tr> </table>	Nitrogen budget for the site (kg per year)	43.36
Nitrogen budget for the site (kg per year)	43.36		
Step 4	Calculate precautionary buffer if Nitrogen budget exceeds zero		
	<table border="1"> <tr> <td>Precautionary Nitrogen buffer (kg per year)</td> <td>8.67</td> </tr> </table>	Precautionary Nitrogen buffer (kg per year)	8.67
Precautionary Nitrogen buffer (kg per year)	8.67		

Total Nitrogen budget for the proposed development (kg per year)	52.0
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Development will generate additional Nitrogen - Mitigation is required Please liaise with your Local Planning Authority for advice on next steps

The previous NE consultation advised that “Natural England advises that the Council, as competent authority, may choose to adopt bespoke occupancy calculations tailored to the scheme where they are satisfied there is sufficient evidence to support this approach. The Council should be confident that the occupancy use is precautionary and based on sound evidence. The applicant has submitted significant evidence of the occupation of like facilities.

With regard to the occupancy levels the Council is satisfied that the stated occupancy levels are reasonable and based on the best available information. It is considered reasonably precautionary to adopt a reduced occupancy level of 1.2 persons per flat.

Therefore, with the development, there would be an increase in nitrates entering the catchment. Therefore, when considered in combination with other plans and projects, this development **would have a likely significant effect** on the suite of Solent designated sites listed above.

Permission cannot be granted unless further Appropriate Assessment can conclude that the development would not adversely affect these sites.

New Forest SPA – Recreational Pressure

The proposed development is within 13.6km of the New Forest SPA site. In accordance with advice from Natural England and as the HRA of the Test Valley Borough Local Plan DPD, a net increase in housing development within 13.6km of the New Forest SPA site is likely to result in impacts to the integrity of those sites through a consequent increase in recreational disturbance.

Development within the identified zone will increase the human population around the New Forest and thus increase the level of recreation and disturbance of bird populations that are qualifying features of the

associated SPA. The impacts of recreational disturbance (both at the site-scale and in combination with other development around the New Forest) are analogous to impacts from direct habitat loss as recreation can cause important habitat to be unavailable for use. The habitat is functionally lost, either permanently or for a defined period. Birds can be displaced by human recreational activities and use valuable resources in finding suitable areas in which to breed undisturbed. Ultimately, the impacts of recreational disturbance can be such that they affect the status and distribution of key bird species and therefore act against the stated conservation objectives of the European sites.

Would the proposal lead to a likely significant effect on European site integrity? YES

(If yes, continue to Stage 3).

Stage 3 - Appropriate Assessment

Appropriate Assessment under Regulation 63(1) - if there are any potential significant impacts, the applicant must provide evidence showing avoidance and/or mitigation measures to allow an Assessment to be made. The Applicant must also provide details which demonstrate any long-term management, maintenance and funding of any solution.

Solent and Southampton Water SPA – Solent Neutrality

In support of the proposed development the applicant has submitted a proposed offsite mitigation strategy (attached as appendices). The proposed strategy comprises the removal of land within and off site agricultural holding from future agricultural production.

The applicant has advised that the site (Freehold land know as 'Roke Manor Farm', Old Salisbury Lane, Romsey, SO31 0GD comprising 40.4 hectares. Title Number HP 425557.) is provided by Ovington Estates who have an agreement in place to allow the issue of credits. A draft Heads of Terms has been attached (Note: The Draft Heads of Terms contains a nitrate figure in excess of the requirement for the site).

The use of the mitigation land and management are to be secured by s106 legal agreement. Subject to the completion of the required agreements the development will therefore not result in adverse effects on the Solent designated site through water quality impacts arising from nitrate generation.

New Forest SPA – Recreational Pressure

The project being assessed will result in a net increase of dwellings within 13.6km of the New Forest SPA site. As established in the HRA of the Test Valley Borough Revised Local Plan DPD, a permanent significant effect on the New Forest SPA site due to increase in recreational disturbance as a result of the new development, is likely. As such, in order to lawfully be permitted, the proposed development will need to include a package of avoidance and mitigation measures.

Test Valley Borough Council has approved the New Forest SPA Mitigation – Interim Framework for implementation from 1 October 2014 <https://www.testvalley.gov.uk/assets/attach/2424/pt4-1-141001-NF-Interim-Framework-website.pdf>. This framework provides a strategic solution to ensure the requirements of the Habitats Regulations are met with regard to the in-combination effects of increased recreational pressure on the New Forest SPA site arising from new residential development in Test Valley.

As set out in the Interim Framework, an appropriate scale of mitigation for this scheme would be: £1,300 x 36 net gain in dwellings = £46,800. The applicant has confirmed that this payment will be undertaken directly to Test Valley Borough Council through the submission of a completed Habitat Mitigation Contribution Agreement.

Consequently, the proposed development will not affect the status and distribution of key bird species and therefore act against the stated conservation objectives of the European sites.

Stage 4 – Summary of the Appropriate Assessment (To be carried out by the Competent Authority (the local planning authority) in liaison with Natural England

Having concluded that the application will have a likely significant effect in the absence of avoidance and mitigation measures on the above European and Internationally protected sites, this represents the authority's Appropriate Assessment as Competent Authority in accordance with requirements under Regulation 63 of the Conservation of Habitats and Species Regulations 2017, Article 6 (3) of the Habitats Directive and having due regard to its duties under Section 40(1) of the Natural Environment and Rural Communities (NERC) Act 2006 to the purpose of conserving biodiversity.

The authority has concluded that the adverse effects arising from the proposal are wholly consistent with and inclusive of the effects detailed in Natural England's 'Advice on achieving nutrient neutrality for new development in the Solent region' and the New Forest SPA Mitigation – Interim Framework. The authority's assessment is that the application complies with the relevant guidance and strategy. Therefore, it can be concluded that there will be no adverse effect on the integrity of the designated sites identified above.

Natural England Officer:

Authorised under delegated powers

Head of Service Signed

Date

APPENDIX 4

NITRATE MITIGATION CALCULATION FOR THE PROPOSED DEVELOPMENT

NOTE: THIS IS SUBMITTED AS A STAND ALONE EXCELL SHEET

Natural England Nutrient Neutrality budget calculator for the The Solent Marine Sites	
This calculator was created by Ricardo Energy and Environment.	
This calculator contains 6 worksheets with 9 tables in total.	
This is the instructions cover sheet. It tells you how to use the calculator and gives an overview of each worksheet.	
You can move between worksheets using the tabs at the bottom of the page.	
If you use screen reading software, you can use 'Ctrl' + 'Page Down' keys to move between the tabs.	
If you use a keyboard only, to open any link in this form first select the cell with the link and then press the 'Shift' + 'F10' keys or the 'Fn' + the 'Menu' keys, then press the letter 'O' twice to highlight 'Open Hyperlink' and press 'Enter'.	
If you use a keyboard only, access dropdown lists by clicking the dropdown arrow or pressing the 'Alt' + 'Down' keys when the cell is selected.	
Table of contents	
Topic of each table	Link to each worksheet
Worksheet 1 Nutrient loading from additional wastewater	Nutrients from wastewater
Worksheet 2 Nutrient loading from current land use	Nutrients from current land use
Worksheet 3 Nutrient loading from future land use	Nutrients from future land use
Worksheet 4 Nutrient loading from future land use after treatment through a sustainable urban drainage system (SuDS)	SuDS
Worksheet 5 Nutrient budget calculations	Final nutrient budgets
General information about the calculator	
This calculator helps you calculate the nutrient budget for a new residential development.	
The nutrient budget for a site is calculated in 4 key stages with an additional optional stage in which information about the SuDS features on the site can be entered. Each stage is implemented in worksheets 1-5 of this calculator.	
Each worksheet is connected through a set of formulas which calculate the nutrient budget. As such, all sheets which represent the four key stages require data inputs in order to calculate the nutrient budget.	
The total nutrient budget is calculated automatically by adding the values from the 'Nutrients_from_wastewater' and the outputs from the 'Nutrients_from_future_land_use' minus the 'SuDS' (if applicable), and then subtracting the values from the 'Nutrients_from_current_land_use', then adding a 20% precautionary buffer to the result. This calculation is completed in the 'Final_nutrient_budgets' worksheet.	
Before a nutrient budget can be completed using the methodology, certain site-specific details for the development site need to be determined.	
The guidance to this calculator and gives further information on the user inputs required.	
The instructions for completing each stage of the nutrient budget methodology are shown in cell A2 of each worksheet.	
This calculator uses a set of lookup tables to find relevant values in a hidden spreadsheet titled the 'Value_look_up_tables' worksheet.	
It is advisable to retain a blank copy of this calculator and 'Save as' a new copy each time you calculate a budget to minimise the risk of using incorrect data inputs and to ease the calculation of new nutrient budgets.	
The values already included have been chosen based on research to determine suitable inputs to the nutrient budget that meet the Habitat Regulations Assessment (HRA) tests of beyond reasonable scientific doubt, in perpetuity (practically speaking this is 80 to 125 years) and in accordance with the precautionary principle.	
If editing any values in this calculator, you must make sure there is a sufficient evidence base to justify these changes and that the new inputs are selected in accordance with the precautionary principle.	
Notes about the nutrients from wastewater worksheet	
This sheet contains 2 tables.	
The table under the heading 'Water infrastructure information' allows the user to enter key information about the wastewater generated and water infrastructure on the site. This table contains a mix of user specified values and values that are calculated automatically depending on the user selected inputs.	
The date of first occupancy is required because some wastewater treatment works (WwTW) may be due an upgrade in 2025 or 2030 which will change the nutrient concentration permit values. This will be shown through 2 or 3 values for the permits and nutrients load from before and after the upgrade.	
The amount of wastewater generated as a result of the population needs to be calculated using the following: - an average occupancy rate - a per capita water usage figure - the number of new developments	
The default water usage value is preset in the worksheet. The default setting for the average occupancy rate is preset in the worksheet and is the national occupancy rate of 2.4 people per dwelling or unit. Only change this value if there is sufficient evidence that the development will be different to the national average. The number of new developments is not preset and must be a whole number.	
If it is uncertain what WwTW the development will drain into, find this information from your sewerage company before completing the calculator. If it is not feasible to connect to a WwTW and a septic tank or package treatment plant is being used, select this option.	
If the total nitrogen (TN) final effluent concentrations (in mg/l) are specified by the manufacturer, select 'Septic Tank user defined' or 'Package Treatment Plant user defined' and enter the manufacturer specified value in the cell where prompted.	
The table under the heading 'Final calculation of nutrient load from wastewater' contains the calculation of the nutrient load from additional wastewater. This table may present up to 3 different values for the nutrient load.	
If a nutrient permit is changing for the selected WwTW as of 01/01/2025, or 01/04/2030, the table will be broken down into up to 3 parts: - post-2030 wastewater nutrient loading - pre-2030 wastewater nutrient loading - pre-2025 wastewater nutrient loading	
If applicable, 3 nutrient budgets will be calculated for the loading before and after the 2030 and 2025 WwTW permit upgrades, and will be presented in cells B19, B21, or B23.	
Notes about the nutrients from current land use worksheet	

This worksheet contains 2 tables that are used for calculating the annual nutrient load from existing (pre development) land use on the development site. Environmental information about the current site is required for the first table. The second table requires the user to input the existing type(s) and area(s) of landcover present in order to generate nutrient loads associated with the current landcovers on the site. Only landcovers for the land that is being altered by the development should be entered.
The dropdown list of landcover types contains up to 8 agricultural landcover types and 8 different non-agricultural landcover types. The full list of landcovers can be found in the calculator guidance or in the dropdown list. Find out what landcover types are within the development before completing this table. If there is a landcover within the development area that is not in the list select the most similar landcover type.
The calculator guidance gives further information about the landcover types used.
Sources of information required for nutrients from current land use worksheet
Description of the information:
The operational catchment within which the development is located can be found using the Environment Agency Catchment Data Explorer
The drainage associated with the predominant soil type within the development site can be found using the Soilscapes Map
The annual average rainfall that the development will receive can be found using the National River Flow Archive for the '42019- Tanners Brook at Millbrook'
Whether the development is located within a nitrate vulnerable zone (NVZ) can be found using the UK Soil Observatory 'Nitrate Vulnerable Zones - England' map
Notes about the nutrients from future land use worksheet
This worksheet contains one table which is used to calculate the annual nutrient load from new (post-development) land use on the development site. The type(s) and area(s) of landcover present on the new development is required to generate nutrient loads associated with the current landcovers on the site.
The type(s) of landcover present on the new development site can be selected from a list of 8 different landcover types: - greenspace - woodland - shrub - water - residential urban land - commercial or industrial urban land - open urban land - community food growing Find out what landcover types will be within the development site before completing this table. If there is a landcover within the development site that is not in the list select the most similar landcover type.
The calculator guidance gives further information about the landcover types used in this calculator.
Notes about the SuDS worksheet
This worksheet contains one table in which the user can enter key information about the use of SuDS to treat the runoff from the site and reduce the nutrient loading from future land uses.
The table allows the user to enter the SuDS features or SuDS management trains that are proposed to treat the nutrient loading from future land uses. The land covers within the SuDS catchment area and the areas of these landcovers can be entered. Only landcovers entered into the 'Nutrients from future land use' worksheet can be selected. The nutrient loads associated with these landcovers are automatically calculated using the values from the worksheet 'Nutrients from future land use'. The user must enter the percentage of flow that will be directed through the SuDS. Any numerical value less than or equal to 100% can be entered for the percentage of flow. Any numerical value less than or equal to 100% can be entered for the removal rates. However, the user will be required to present all evidence of these removal rates to the competent authority. As such, the most up to date SuDS guidance on SuDS for nutrient removal should be followed. The user can enter any text for the SuDS feature to allow for variability in the names of the SuDS features or management trains planned.
Notes about the final nutrient budgets
This final stage automatically calculates the results from worksheets 1-5.
The value(s) shown represent the nutrient mitigation required in kilograms per year to achieve nutrient neutrality.
If there are 2 or 3 values due to changing permits, the calculator will show the total amount of nutrient mitigation that is needed before and after the changing permit date.

Nutrients from wastewater		
This sheet contains 2 tables. The tables are separated by a heading, which describes the following table. Note: You will need to fill in cells B5 to B10 in the first table 'Water infrastructure information'. Cell B11 is automatically calculated and will state '0.00' unless the user inputs have been entered. Cells A12 to A13 and B12 to B13 are automatically generated and will state 'Not applicable' depending on the inputs to cells B5 and B10. You may need to fill in cell C11 depending on the information you entered in cell B10. Cells C5 to C10 and cells C12 to C13 are intentionally blank cells. You do not need to fill in any cells in the second table 'Final calculation of nutrient load from wastewater'. Cells B17 to B19 are automatically calculated and will state '0.00' unless the user inputs have been entered to the first table 'Water infrastructure information'. Cells A20 to A23, cell B21 and cell B23 are automatically generated and will state 'Not applicable' depending on the user inputs to the first table 'Water infrastructure information'. Cell B16, cell B20 and cell B22 are intentionally blank cells. How to fill in the table 'Water infrastructure information' Cell B5: Enter the date of first occupancy. Cell B6: Enter the average occupancy rate of the development. The default rate is 2.4, this should not be edited without sufficient evidence. Cell B7: Enter the water usage. This value should be kept at 120 unless other efficiency measures are used. Cell B8: Enter the total number of dwellings or units that will be within the development site as of the project completion date. Cell B9: Choose whether the development can apply deductible acceptable loading from the dropdown list. Cell B10: Choose the receiving wastewater treatment works (WwTW) from the dropdown list. If you select 'Package Treatment Plant user defined' or 'Septic Tank user defined', you must enter their certified value of total nitrogen (TN) in cell C11. Otherwise the default values will be used in the calculation of the nutrient load associated with wastewater. Nutrient permits may be changing for the WwTW you select, from 01/01/2025, or 01/04/2030. If the date of first occupancy is in-between changing permit dates, multiple permit limits may be automatically generated in cells B11 to B13. If applicable, up to 3 values for the nutrient loading associated with wastewater will be presented in cell B19, B21, and B23.		
Water infrastructure information		
Description of required information	Data entry column - user inputs required	Additional data entry column - user inputs may be required
Date of first occupancy (dd/mm/yyyy):	01/07/2028	
Average occupancy rate (people/dwelling or people/unit):	1.20	
Water usage (litres/person/day):	120	
Development proposal (dwellings/units):	54	
Include deductible acceptable loading?	Yes	
Wastewater treatment works:	Peel Common WwTW	
Current wastewater treatment works N permit (mg TN/litre):	7.00	
Not applicable	Not applicable	
Not applicable	Not applicable	
Final calculation of nutrient load from wastewater		
Description of values generated	Values generated	
Wastewater nutrient loading		
Additional population (people):	64.80	
Wastewater by development (litres/day):	7776.00	
Annual wastewater TN load (kg TN/yr):	17.89	
Not applicable		
Not applicable	Not applicable	
Not applicable		
Not applicable	Not applicable	

Nutrients from current land use

This sheet contains 2 tables. The tables are separated by a heading, which describes the following table.

Note: You will need to fill in cells B5 to B8 in the first table 'Current land use information'. You will need to fill in cells A11 to A27, and B11 to B27 in the second table 'Current land uses'. Cells B28 and C110 to C28 are automatically calculated and will state '0.00' unless the user inputs have been entered. Cells D11 to D27 are automatically generated and will state 'Not applicable' depending on automatically generated data in cells C11 to C27. Row 28 is a Total Row. The Total Row states 'Totals': in cell A28 and automatically calculates the total sum of cells B11 to B27 in cell E28 and C11 to C27 in cell C28. Cell D28 is intentionally blank.

Fill in the following cells:

Cell B5: Choose the operational catchment the site is located within from the dropdown list.

Cell B6: Choose the soil drainage type associated with the predominant soil type within the development site from the dropdown list.

Cell B7: Choose the annual average rainfall the development will receive from the dropdown list. If the rainfall volume is not on the list, select the nearest value.

Cell B8: Choose whether the development is in a nitrate vulnerable zone (NVZ) from the dropdown list.

How to fill in the table 'Current land uses'

Cell A11-A27: Choose the existing (pre-development) land use type(s) from the dropdown list. Cells B11-B27: Enter the area in hectares of each land use type.

The nutrient load from current land uses is shown in cells C11-C27 for total nitrogen (TN). The total nutrient load from current land uses is shown in cell C28 for TN.

Current land use information

Description of required information	Data entry column - user inputs required
Operational catchment:	East Hampshire Rivers
Soil drainage type:	Impeded drainage
Annual average rainfall (mm):	850.1 - 900
Within nitrate vulnerable zone (NVZ):	Yes

Current land uses

Existing land use type(s) - user inputs required	Area (ha) - user inputs required	Annual nitrogen nutrient export (kg TN/yr)	Notes on data
Greenspace	0.90	2.70	Not applicable
		0.00	Not applicable
		0.00	Not applicable
		0.00	Not applicable
		0.00	Not applicable
		0.00	Not applicable
		0.00	Not applicable
		0.00	Not applicable
		0.00	Not applicable
		0.00	Not applicable
		0.00	Not applicable
		0.00	Not applicable
		0.00	Not applicable
		0.00	Not applicable
		0.00	Not applicable
		0.00	Not applicable
		0.00	Not applicable
		0.00	Not applicable
Totals:	0.90	2.70	

Nutrients from future land use		
This sheet contains one table. Note: You will need to fill in cells A5 to A21 and B5 to B21. Cells B22 and C5 to C22 are automatically generated calculations and will state '0.00' unless the user inputs have been entered. Row 22 is a Total Row. The Total Row states 'Totals:' in cell A22 and automatically calculates the total sum of cells B5 to B21 in cell B22 and C5 to C21 in cell C22. How to fill in the table 'Future land uses' Cells A5-A21: Choose the future (post-development) land use type(s) of landcover present on the new site from the dropdown list Cells B5-B21: Enter the area in hectares of each land use type. The nutrient load from future land uses is shown in cells C5 to C21 for total nitrogen (TN). The total nutrient load from future land uses is shown in cell C22 for TN.		
Future land uses		
New land use type(s) - user inputs required	Area (ha) - user inputs required	Annual nitrogen nutrient export (kg TN/yr)
Residential urban land	0.90	14.68
		0.00
		0.00
		0.00
		0.00
		0.00
		0.00
		0.00
		0.00
		0.00
		0.00
		0.00
		0.00
		0.00
		0.00
		0.00
		0.00
		0.00
		0.00
Totals:	0.90	14.68

Nutrients from future land use after sustainable urban drainage system (SuDS) treatment

This sheet contains one table.

Note: You will need to fill in cells A5 to A29, cells B5 to B29, cells C5 to C29, cells E5 to E29 and cells F5 to F29 if you are including SuDS to remove nutrients from the surface runoff. Cell B30, cells D5 to D30 and cells G5 to G30 are automatically calculated and will state '0.00' unless the user inputs have been entered. Cells H5 to H29 are automatically generated and will state 'Not applicable' unless the total area of the landscove entered is larger than the total area of the landscove entered into the worksheet 'Nutrients from future_land_use'. Row 30 is a Total Row. The Total Row states 'Totals': in cell A30 and automatically calculates the total sum of cells B5 to B29 in cell B30, cells D5 to D29 in cell D30 and cells G5 to G29 in cell G30. Cell C30, cell E30, cell F30 and cell H30 are intentionally blank.

How to fill in the table 'Suds information':

How to fill in the table "Suds information"

Cells A5 to A29: Choose the future (post-development) land use type(s) of landcover present on the new site within the SuDS catchment area from the dropdown list. Only landcovers entered into the worksheet titled 'Nutrients_from_future_land_use' can be entered.

Cells B5 to B29: Enter the area in hectares of each new land use type within the SuDS catchment area.

Cells C5 to C29: Enter the percentage of the flow entering the SuDS feature. If all flow is being diverted to the SuDS feature then this value should be set to 100%.

The annual total nitrogen (TN) loads associated with the landcovers in the Su/OS catchment area are automatically calculated in cells D5 to

The annual total nitrogen (TN) loads associated with the landcovers in the SuDS catchment area are automatically calculated in cells D5 to E20.

Cells E5 to E29: Enter the name of the SuDS features used to intercept surface flows can be entered in. Any text can be entered into these cells.

cells.

Cells F5 to F29: Enter the nutrient removal rates associated with the SuDS features for TN.

Values for columns F must be identified by the user and must be specific to the SuDS features being implemented.

Values for columns F must be identified by the user and must be specific to the SuDS features being implemented.

The annual TN loads removed by the SuDS features are automatically calculated in cells G5 to G29 for TN. These values are subtracted from

The artificial TN loads removed by the SUBS features are automatically calculated in cells G5 to G29 for TN. These values are subtracted from the nutrient budget.

You do not need to fill in column H 'Notes on data'. It will state 'Not applicable' unless the total area of each landcover within the SuDS

You do not need to fill in column H 'Notes on data'. It will state 'Not applicable' unless the total area of each landcover within the SuDS catchment area exceeds the area of the landcover entered into the catchment file (Nutrients from future land use).

catchment area exceeds the area of the landcovers entered into the worksheet titled 'Nutrients_from_future_land_use'.

SuDS information

[illegible]

Final nutrient budgets	
This worksheet contains one table. This table is automatically populated using the outputs from the previous worksheets. Note: You do not need to fill in any cells in the table. Cells B5 to B8 and cell B10 are automatically calculated and will state '0.00' unless the user inputs have been entered to all of the required worksheets. Cells A11 to A14, cell B12 and cell B14 are automatically generated and will state 'Not applicable' depending on the user inputs to the worksheet 'Nutrients_from_wastewater'. Cell B9, B11 and B13 are intentionally blank. This table presents calculations that underpin the final annual nutrient budget for the development site. Up to 3 values for the nutrient budget may be presented in cells B10, B12 and B14 for total nitrogen (TN).	
Total nutrient budget calculations	
Description of values generated	Values generated
Wastewater TN load (kg TN/year):	17.89
Net land use TN change (kg TN/year):	11.98
TN budget:	29.87
TN budget + 20% buffer:	35.84
Annual nutrient budget	
The total annual nitrogen load to mitigate is (kg TN/yr):	35.84
Not applicable	
Not applicable	Not applicable
Not applicable	
Not applicable	Not applicable

APPENDIX 5

APPEAL DECISION APP/B1740/W/20/3265937

SITE OF THE RISE AND THREE NEIGHBOURING PROPERTIES,

STANFORD HILL, LYMINGTON, SO41 8DE



Appeal Decision

Inquiry Held on 11,12, 18, 19, 20 and 24 May 2021

Site visit made on 21 May 2021

by G J Fort BA PGDip LLM MCD MRTPI

an Inspector appointed by the Secretary of State

Decision date: 8th June 2021

Appeal Ref: APP/B1740/W/20/3265937

**Site of The Rise and Three Neighbouring Properties, Stanford Hill,
Lymington, SO41 8DE**

- The appeal is made under section 78 of the Town and Country Planning Act 1990 against a refusal to grant planning permission.
 - The appeal is made by Renaissance Retirement Limited against the decision of New Forest District Council.
 - The application Ref 20/10481, dated 1 May 2020, was refused by notice dated 14 October 2020.
 - The development proposed is the demolition of existing buildings and the erection of 44 sheltered apartments for the elderly with associated access, mobility scooter store, refuse bin store, landscaping and 34 parking spaces.
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Decision

1. The appeal is allowed and planning permission is granted for the demolition of existing buildings and the erection of 44 sheltered apartments for the elderly with associated access, mobility scooter store, refuse bin store, landscaping and 34 parking spaces at the site of The Rise and Three Neighbouring Properties, Stanford Hill, Lymington, SO41 8DE in accordance with the terms of the application, Ref 20/10481, dated 1 May 2020, subject to the conditions set out in the schedule below.

Procedural Matters

2. The application that led to this appeal was refused by the Council on a number of grounds including its effects to biodiversity (both offsite and on-site) and its effects to the living conditions of the occupants of 14 and 15 Bucklers Mews. However, during the course of the appeal, the Council withdrew its objections in relation to these aforementioned matters on the basis that the proposed development could be made acceptable in these terms through the use of planning obligations or conditions.
3. Whilst these matters do not therefore form main issues in this appeal, I am the competent authority for the purposes of the Conservation of Habitats and Species Regulations 2017 (as amended) (the Habitats Regulations). Consequently, the Habitats Regulations require me to carry out an appropriate assessment of the appeal scheme in circumstances where it would be likely to have significant effects on European sites, alone or in combination with other plans or projects – I return to this issue below. Moreover, I will deal with the

other matters covered by the Council's original reasons for refusal, where appropriate, elsewhere in this decision.

4. During the Inquiry, it emerged that the Council had recently adopted¹ a Mitigation for Recreational Impacts on New Forest European Sites Supplementary Planning Document (the Mitigation SPD), which supplants the guidance² that was relevant at the time of the decision on the application that led to this appeal. The Mitigation SPD was provided as an Inquiry document and adequate time was available for its implications to be captured in the appellant's finalised planning obligation related to this matter. Consequently, I consider that no prejudice would occur to the interests of any parties as a result of me taking the Mitigation SPD into account in my assessment of the appeal's planning merits.
5. Following the closure of the Inquiry, I received finalised planning obligations relating to a number of matters, which are covered in my reasoning below.

Main Issues

6. I consider the main issues in this case to be firstly, the effects of the proposed development on the significance of Lymington Conservation Area, and the Grade II Listed Buildings at Highfield (No 1(Hill House) No2; Nos 3 and 4 (Down House); and Nos 5 and 6 (Highfield Ridge)); and secondly, the effect of the appeal scheme on the character and appearance of the area.

Reasons

Site, surroundings and proposed development

7. The appeal site comprises four relatively deep residential plots currently occupied by detached houses of varying scale and character. These existing dwellings are set back from Stanford Hill behind a considerable amount of hard standing bounded by hedges, and short walls in a mix of materials. Close to the town centre, the appeal site is just outside the boundary of the Lymington Conservation Area. Bucklers Court, a building mainly of three-storeys, and of a relatively deep plan, with a long, but articulated front elevation addressing the curve of Stanford Hill, lies to one side of the appeal site set at a higher level due to the underlying topography of the area. To the other is Concord, a detached dwelling in a deep plot. To the rear of the appeal site are detached houses in relatively deep plots, which address Belmore Road. The comparatively denser development of Bucklers Mews also lies to the rear of part of the appeal site. Situated across Stanford Hill from the appeal site are the mature trees and broad landscaped area to the rear of Rowans Park. Further up the hill, situated behind a landscape element referred to by parties as a "green" the substantial properties of Highfield, which are of considerable aesthetic quality, provide an obvious focal point.
8. The appeal scheme would entail the demolition of the existing buildings on the site and the development of a larger single building of mainly three storeys, which would provide 44 sheltered apartments for older people. A portion of the proposed development would also include a lower ground floor. Of a broadly "T" shaped footprint, the appeal building would comprise a number of distinct

¹ On 5 May 2021

² *Mitigation Strategy for European Sites: Recreational Pressure from Residential Development Supplementary Planning Document* (Adopted June 2014) (CD4.6)

elevational elements of varied overall heights and set-backs from the highway. The proposed building's rear wing would project more deeply into the plot than the existing buildings. Vehicular access and egress from the site would be provided via two highway crossovers, and the remaining existing crossovers would be removed which would create a more consolidated boundary across the front of the appeal site than exists at present. The boundary would incorporate hedges and railings. A landscaped strip, including tree planting, would be placed between the front boundary and the appeal scheme's parking and access arrangements. Further parking would be provided on the portion of the site adjacent to Bucklers Court and Bucklers Mews. To the rear and side boundaries additional tree planting would accompany the retained trees in the site, which include one identified as an "important tree" in the Lymington Local Distinctiveness Supplementary Planning Document (adopted February 2011) (the Distinctiveness SPD).

Listed Buildings and Conservation Area

9. It is common ground between the main parties that the appeal site is within the setting of both the Conservation Area and No 1 (Hill House); No 2; Nos 3 and 4 (Down House); and Nos 5 and 6 (Highfield Ridge), Highfield, which are all Grade II Listed Buildings (the Highfield Listed Buildings).
10. The Highfield Listed Buildings are pairs of properties, which vary in terms of their elevational treatment and the materials employed but are consistent in terms of their scale. The overall symmetry of each pair, and the classical proportions of their facades are also clear similarities shared by the Highfield Listed Buildings. Occupying an eminent position at the brow of Stanford Hill, the Highfield Listed Buildings are high-status structures which mark an entry point into the historic town, with windows and other features at their fronts orientated towards Stanford Hill.
11. Consequently, insofar as is relevant to the appeal, the significance of these buildings derives, to a considerable degree, both from this marked architectural quality; and from their historic interest in terms of the evidence they yield about the development of Lymington, particularly in terms of their status as a visual entry point to the town centre and their position at the western extent of its historic core. In this latter respect, I also note the Council's view of their relationship to the emergence of Lymington as a resort in the 19th Century. As high-status buildings situated at the brow of the Hill and orientated towards it, views to and from them are elements of the setting that contribute to their significance in these respects.
12. The Listing Descriptions for the Highfield Buildings contain the annotation "GV", which indicates that their Group Value is of note, both in terms of their relationships with each other and with other nearby Grade II Listed Buildings at Stanford Road and Priestlands Place. It is clear that the Highfield Listed Buildings' relationships with these other structures is also a matter relevant to the consideration of the contribution made to the significance by their setting.
13. Historic mapping³ supplied by both parties shows that most of the area broadly to the south of Highfield, aside from the "green" has changed considerably since the Listed Buildings were originally constructed – with extensive residential development taking place over the course of the 20th Century.

³ In the Council's *Conservation Proof of Evidence Appendix 2* (CD8.10) and the appellant's *Heritage Proof* (CD8.18)

Whilst the density of much of this development allows for landscaping and mature trees, the predominantly domestic character of much of the land, and the buildings on it, is readily perceived in views from Highfield – meaning that any ‘designed views’ that may have existed when the Listed Buildings were constructed have already been fundamentally altered.

14. The proposed building would be of a greater scale than the dwellings currently on the appeal site, and its footprint would extend across the existing plots. However, the proposed building would be set well back from Stanford Hill, behind tall trees. Taken together, these aspects of the appeal scheme’s design would help it to assimilate with the generally leafier and more spacious pattern further down the hill. The appeal scheme would not therefore, appear as an alien feature within this setting, which already includes buildings and landscaping. Moreover, the appeal site is set at a considerably lower level than Highfield. As a result, taken together with its set back and landscaping proposals, the appeal scheme would not constitute a dominant feature in views available from Highfield. In my judgement therefore, the proposed development would not materially erode any ‘designed views’ from the Highfield Listed Buildings and would thus avoid harm to their significance in this respect.
15. The location of the Highfield Listed Buildings on the brow of the hill and their scale, taken together with the set-back of the proposed development, the level of its site and the landscaping proposals to its front, would also ensure that the Listed Buildings remain the pre-eminent structures marking the entry point to the historic town, in views toward them from lower down Stanford Hill. Accordingly, the aforementioned aspects of the architectural and historic significance of the Highfield Listed Buildings would not be eroded as a result of the appeal scheme.
16. No 7 Highfield House and No 8 Highfield are not included on the statutory list, and neither are they identified in *Lymington: A Conservation Area Appraisal* Supplementary Planning Guidance (adopted July 2002) (the CAA) as “Key / Important Unlisted Buildings”. The Council confirmed at the Inquiry that they do not appear on a local list. Nevertheless, the Council consider them to be non-designated heritage assets. Be that as it may, for the reasons set out above in terms of the appeal site’s relationships to Highfield, I consider that the proposed development would not cause a harmful effect to any significance that those non-designated properties may possess.
17. The appeal site is situated to the side of Bucklers Court, a substantial structure, which would effectively screen it from the Grade II Listed Buildings on Priestlands Place and Stanford Road. As a result, the proposed development would not interrupt the relationship that these structures have with the Highfield Listed Buildings and would not diminish their group value.
18. The Conservation Area has a legible medieval street pattern in its core, with 18th Century and later expansion at its periphery. These aspects contribute to the significance of the Conservation Area in its architectural and historic senses – as does the resultant harmonious, but nonetheless varied, nature of its built form.
19. Bucklers Court marks the boundary of the Conservation Area in relation to the appeal site, and effectively severs inter-visibility between the site and the historic core of the town – albeit the appeal site is inter-visible with the

Highfield properties. I accept that there is a marked change in character and scale between Bucklers Court and the appeal site's properties. It is clear that the change in scale from Bucklers Court to the predominantly 20th Century dwellings further down the hill would become more gradual and transitional as a result of the proposed development.

20. However, the proposed development would clearly read as a modern building and not a traditional one, and due to its site level, set-back and landscaping at its front, it would not appear overly assertive. Moreover, these aspects of the proposed development, taken together with the more assertive positioning of Bucklers Court, and the high quality architecture of the Highfield Listed Buildings set at the brow of the Hill, would ensure that the existing entry to the Conservation Area and the town's historic core would remain readily understandable. Consequently, the proposed development would not undermine the legibility of the town and would not erode the historic and architectural significance of the Conservation Area.
21. Accordingly, for the reasons set out above, I conclude on this main issue that the proposed development would avoid harm to the significance of the Conservation Area, and to the Grade II Listed Buildings No 1(Hill House) No2; Nos 3 and 4 (Down House); and Nos 5 and 6 (Highfield Ridge) Highfield. In these respects, the proposed development would accord with Policy DM1 of the New Forest Local Plan Part 2 (adopted April 2014) (the Part 2 Plan) and the National Planning Policy Framework (the Framework). Taken together and amongst other things, these policies seek to ensure that heritage assets are conserved in a manner appropriate to their significance; and that development should pay particular regard to setting, historic significance and context of heritage assets. In arriving at this view, I have taken fully into account the relevant Historic England good practice and related advice⁴.
22. In light of the above, and mindful of my duty under s66(1) of the Planning (Listed Buildings and Conservation Areas Act) 1990, I conclude that the proposed development would preserve the setting of the Grade II Listed Buildings No 1(Hill House) No2; Nos 3 and 4 (Down House); and Nos 5 and 6 (Highfield Ridge) Highfield.
23. Whilst I have been supplied with the CAA, that document makes clear⁵ that it provides guidance on "the subject of the design of development *in* Lymington's central conservation area" (with my emphasis). The appeal site would thus be outside the scope of this document in terms of its design principles.

Character and appearance

24. For the purposes of the Distinctiveness SPD, the appeal site is located within Character Area 6 - South Lymington. According to the Distinctiveness SPD⁶ this area has several key defining elements including the similar scale and mass of neighbouring dwellings, the presence of large trees, large garden settings (including rear garden islands), common set-backs, build-up of plot widths and low front boundaries. As currently developed, the site broadly conforms to these key defining features.

⁴ GPA2 *Managing Significance in Decision-Taking in the Historic Environment* (CD7.13); GPA3 *Setting and Views* (CD7.14); Historic England Advice Note 1 – *Conservation Areas* (CD7.16); Historic England Advice Note 12 – *Statements of Heritage Significance* (CD7.17)

⁵ At paragraph 1.2

⁶ At page 95

25. Nevertheless, the Distinctiveness SPD, makes it clear⁷ that the guidance contained within the document “should inform the necessary thorough research into the context of individual sites. It is for the ... developer or the designer to investigate the finer nuances of the place and how they can inform the design of new development.” In these regards it is relevant that the appeal site is situated at the boundary of Character Area 6, close to Character Area 1 – the Town Centre, and Character Area 7 – Yaldhurst Purlieu. In this context, it is also relevant that the Framework⁸ sets out that SPDs relating to design matters should allow a suitable degree of variety where this would be justified.
26. I readily accept that there is a clear distinction between Bucklers Court and the dwellings present at the appeal site in terms of their massing, scale, set-back density and the build-up of their building lines. I am also mindful of the design intentions set out in previous planning policy/guidance relating to the Bucklers Court site, which identified an “opportunity to ‘round off’ the town centre with a high quality residential scheme”⁹. Nevertheless, I saw that, due to its immediate proximity to the appeal site, Bucklers Court provides a clear context, and unlike the majority of dwellings in Area 6, which are in the main situated on quieter residential streets and cul-de-sacs, those on the appeal site directly address the A337 (Stanford Hill). To my mind, these aspects of the appeal site, and its relationships with its immediate surroundings could reasonably be considered finer nuances of this part of Area 6 which clearly distinguishes it from the wider area, which lacks such immediate contextual relationships. For this reason, I do not share the Council’s view that the design evolution of the appeal scheme, as expressed in the Design and Access Statement and other submissions, is based on erroneous conclusions about the appeal site’s context.
27. The design of the proposed development has responded to this site-specific context and would see a building which would, instead of the marked change in character that now exists, provide a more transitional approach. This would be achieved through a building which would step down in scale from its northern edge to its southern, and would incorporate distinct elevational elements, which would be set further back from the highway than Bucklers Court. The proposed building would be set in from its boundaries and landscaping would be provided adjacent to these. These elements of the appeal scheme’s design would ensure that the proposed building, despite its scale and massing, would not appear as an overly assertive feature. For these reasons too, it would not compete with the ‘rounding off’ role of Bucklers Court, or interfere with a contextual understanding of where the town centre and Conservation Area begins. Neither would the proposed development dominate Concord, the dwelling to its other side.
28. The front of the proposed building would incorporate four distinct elevational elements, which would provide articulation and modelling to this street-facing elevation. I saw within the appeal site’s wider surroundings (including at Highfield) examples of dormer windows, canopies, parapets, and flat-roofed elements. The proposed building would also clearly reference the range of facing materials present in nearby structures.

⁷ At paragraph 1.3

⁸ At paragraph 126

⁹ Included in Appendix 4 of the Council’s *Conservation Proof of Evidence* (CD8.12)

29. Some aspects of the elevational treatment would differ from those of some of the traditional buildings in the area. For example, I note views that the elevations may not achieve the precise classical proportions, particularly under the pediment, in contrast to the Highfield Listed Buildings and Bucklers Court; and its dormers would be in a broadly "landscape" rather than a "portrait" orientation unlike a great deal (although not all) of dormers present on buildings within the Conservation Area. Moreover, the front elevation, whilst incorporating symmetrical elements (such as the rendered element with dormer windows), taken as a whole would be asymmetric – and also incorporate asymmetric individual elements. I am mindful also that, unlike Bucklers Court, the proposed development would incorporate more extensive areas of flat roofing. Nevertheless, the appeal site is outside of the Conservation Area, and the proposed development would be a modern building, which would clearly read as such, albeit with references to traditional elements. Furthermore, due to the roof-level design, which includes parapets and pitched features, the flat roof elements would be largely invisible in the majority of available views of the appeal scheme. Accordingly, the proposed development's design would not appear incongruous in these terms.
30. The appeal scheme would introduce a more consolidated front boundary than exists at present with associated landscaping and tree planting and in this respect would be a considerable improvement on the current arrangement of highway crossovers. In these terms, the proposed development would clearly meet with the Distinctiveness SPD's design advice relating to the garden setting for built development¹⁰. Moreover, this aspect would greatly assist the proposal to assimilate with its surroundings.
31. In other respects, the proposed development would not meet the Distinctiveness SPD's guidance of most relevance to the character area within which it sits – in terms of its build-up of building line and its plot width. Whilst I accept that this would close the gaps currently present between the houses on the site, these gaps are only perceptible in a limited range of views, and in any event ancillary structures are present in a number of them. Consequently, the current contribution of the gaps between the appeal site's existing dwellings to the streetscene is, in my view, limited and their loss would be mitigated by the implementation of the proposed landscaping scheme. Moreover, the articulation of the proposed front elevation would also serve to break up the building line into visually discrete elements.
32. I note also that the rear wing of the proposed building would extend over the rear gardens currently at the appeal site, and that this element of the scheme would be visible in gaps from Belmore Road. Nevertheless, a considerable proportion of the rear garden would remain and existing trees would be accompanied with new planting. Taking these aspects of the proposed development together with the depth of neighbouring gardens and the maturity of their existing vegetation, I consider that the rear 'garden island' would not be harmfully eroded, and that intervening landscape elements would screen and soften views through to the rear of the proposed development.
33. The Framework sets out that planning decisions should promote an effective use of land in meeting the need for homes¹¹; and that where there is an existing shortage of land for meeting identified housing needs (a matter of

¹⁰ Set out on page 95

¹¹ At paragraph 117

common ground between the parties in the current case), it is especially important that planning decisions ensure that developments make optimal use of the potential of each site¹². To my mind, the site-specific design response of the appeal scheme would ensure that this is the case, and, taken together with the lack of material harm that would be caused in townscape terms, justifies a departure from the advice of the Distinctiveness SPD in this case insofar as its guidance regarding the build-up of building line and plot width is concerned.

34. For the reasons set out above, the appeal scheme would clearly not constitute an example of poor design, and thus would not conflict with the Framework¹³ in this regard. Accordingly, these considerations taken together with my conclusions regarding the effects of the proposed development on the significance of heritage assets, lead me to the conclusion on this main issue that the appeal scheme would avoid harm to the character and appearance of the area. In these respects, the proposed development would accord with Policy ENV3 of the New Forest Local Plan (adopted July 2020) (the Local Plan), insofar as (amongst other things) it expects new development to create buildings, streets and spaces which are sympathetic to the environment and their context in terms of layout, landscape, scale, height appearance and density and in relationship to adjoining buildings, spaces and landscaping features. For these reasons too, I find no conflict with the Government's priorities for well-designed places as expressed in the National Design Guide.

Other Matters

Housing Supply Position

35. It is common ground that the Council cannot demonstrate a five-year supply of deliverable housing land. Although I accept that the Council's recently adopted Local Plan includes a strategy to meet its requirement over the plan period – delivery of its strategic site allocations is not progressing at the rate previously anticipated. The Council is currently engaging with developers to support an updated housing supply position to be published later this year. However, the fruits of that labour are not yet available – and I am mindful of the Council's statement that, as this work is still in progress, "it is not possible to take a definitive position on whether or not the Council has a five-year housing land supply at this present point in time and to attempt to do so through this Appeal Inquiry would not be practical or worthwhile"¹⁴. Consequently, at the Inquiry no substantive evidence was forthcoming sufficient to undermine the appellant's conclusion¹⁵, based on robust and credible analysis, that there is only around a 2.5 year supply of specific deliverable housing sites – a position that they characterise as an "optimistic view"¹⁶ of the situation.
36. Moreover, I have found that no harm would occur to the significance of heritage assets as a result of the proposed development, and that in this respect, policies in the Framework that protect areas or assets of particular importance do not provide a clear reason for refusal. In such circumstances the Framework indicates¹⁷ that the tilted balance is engaged. In arriving at this

¹² At paragraph 123

¹³ At paragraph 130

¹⁴ Paragraph 4.10 of Appendix 4 of the Council's *Proof of Evidence* (CD8.6)

¹⁵ Per paragraph 10.2 *Draft Proof of Evidence: Housing Land Supply*, included as Appendix 1 to the Appellant's *Planning Proof of Evidence* (CD8.29)

¹⁶ Ibid at paragraph 10.2

¹⁷ At paragraph 11(d)

view, I acknowledge that the Council has met the most recent Housing Delivery Test – however, the Framework is clear¹⁸ that this consideration would not disengage the tilted balance, where a five year supply of deliverable housing sites cannot be demonstrated.

37. Whilst the Council and appellant's assessments differ on this point, both indicate a significant need¹⁹ for specialist housing for older people in the District over the plan period. During the course of the appeal, I have been supplied with no substantive evidence which suggests that there are any deliverable sites, other than the one subject to this appeal, which would make a meaningful contribution to the supply of sheltered housing in the short-to-medium term. Furthermore, the Government's Planning Practice Guidance (PPG) advises²⁰ that the need to provide housing for older people is critical.
38. I am mindful of views of interested parties²¹ referring to the availability of older people's properties in Lymington and the perceived slow sales of some of the available stock -including one development, which appears to have completed in late 2019. Some consider that the level of parking provided and other matters such as the tenure arrangements involved in such housing may have contributed to slower than usual sales rates for the recently completed scheme. Nevertheless, social distancing measures pursuant to the COVID-19 pandemic have been in place for a considerable period of time following the completion of that scheme – and these may well have affected sales rates. I am conscious also that the market for age-restricted housing is necessarily smaller than that for general needs housing subject to no age restrictions – this is clearly another factor which could influence sales rates for such dwellings.
39. Some consider that housing, such as that proposed in this case could attract occupants from outside of the District. However, the demographic projections on which the Council's needs assessments are based includes an allowance for in-migration – and I am mindful of the material presented by the appellant in relation to one of its recently completed schemes²² located in Brockenhurst, which demonstrates that a considerable proportion of its occupants moved from properties within the immediate locality. Although this material relates to an individual scheme, and is thus a limited sample, I have been supplied with no substantiated evidence that would refute this or that demonstrates that higher proportions of in-migration have occurred in respect of other schemes.
40. Accordingly, these matters do not materially undermine either the appellant's or Council's assessments in terms of the underlying need for this type of accommodation over the plan period.
41. Furthermore, in enabling older people to 'down-size' to smaller accommodation, which nonetheless would meet their needs, the proposed development would free up larger housing elsewhere, including a proportion in the District, which would also have beneficial housing supply effects.
42. Against this background, and taking into account the Court judgements and appeal decisions provided by the parties²³, the appeal scheme's delivery of

¹⁸ At Footnote 7

¹⁹ Per paragraph 6.24 of the Local Plan

²⁰ *Housing for Older and Disabled People* at Paragraph: 001 Reference ID: 63-001-20190626 Revision date: 26 June 2019

²¹ Including Lymington and Pennington Town Council (ID3) and the Lymington Society (ID11)

²² At Appendix 3 of the appellant's *Planning rebuttal to proof of evidence by Mr James Gilfillan* (CD8.35)

²³ *Hallam Land Management Ltd v Secretary of State for Communities*

specialist housing for older people would deliver benefits that weigh very significantly in its favour.

Other Benefits of the proposed development

43. Due to its adjacency to the town centre, its positioning within a settlement boundary, and its ready access to services, the appeal site is manifestly a sustainable location – a matter of common ground between the parties. In these ways, the proposed development would accord with the Local Plan's intention for older persons' housing to be located close to local facilities and services²⁴.
44. Moreover, a considerable proportion of the appeal site also constitutes previously developed land – and I am mindful that some 61% of the District's area is what the Local Plan describes as "Greenfield with NPPF 2012 footnote 9 constraints"²⁵. In the light of these considerations, the Framework's support for the effective²⁶ and efficient²⁷ use of land is particularly relevant. For these reasons, taken together with my findings on housing supply matters, I consider that the proposed development would also contribute to the Government's objective of delivering the right homes in the right places²⁸.
45. The PPG sets out²⁹ that offering older people a better choice of accommodation to suit their changing needs can help them live independently for longer, feel more connected to their communities and help reduce costs to the social care and health systems. Research has been drawn to my attention by the appellant³⁰, which finds that provision of housing of the type proposed could yield substantial savings to health and social care budgets.
46. The proposals would deliver a biodiversity net gain (BNG) on the site, which would be secured by a planning condition, of over 10%. Although Policy STR1 of the Local Plan requires BNG, it sets no specific percentage gain, and legislation enshrining a requirement is not yet in place. In any event, the BNG provided would be a clear benefit of the appeal scheme.
47. During its construction phase the proposed development would create direct employment, of some 20 roles per annum over an 18 month build programme³¹ – and over that time the appeal scheme would also have a positive effect on economic activity in the wider construction supply chain. When completed, the adjacency of the appeal site to the town centre would likely lead to a considerable increase in spending at local businesses. These

and Local Government and Eastleigh Borough Council [2017] EWHC 2865 (Admin); *Cheshire East Council v Secretary of State for Communities and Local Government and Rowland Homes Ltd* [2014] EWHC 3536 (Admin); *Phides Estates (Overseas) Limited v Secretary of State for Communities and Local Government, Shepway District Council and David Plumstead* [2015] EWHC 827 (Admin); APP/B1740/W/17/3174028; APP/B1740/W/17/3180586; APP/H2265/W/18/3202040; APP/R3650/W/18/3211033; APP/B1740/W/18/3198347; APP/F2605/W/18/3194045; APP/A0665/W/18/3203413; APP/B1740/W/18/3212419; APP/C3810/W/19/3242332; APP/C3810/Y/19/3242340; APP/W1145/W/19/3238460; APP/Q3115/W/19/3230827; APP/C1570/W/19/3242550; APP/A1530/W/19/3223010; APP/N1730/W/20/3261194; APP/G5180/W/20/3257010.

²⁴ Expressed at paragraph 6.27 of the Local Plan

²⁵ At Figure 2.5

²⁶ At paragraph 117

²⁷ At paragraph 122

²⁸ Set out in *Fixing our broken housing market* Cm9352 CD7.8

²⁹ *Housing for Older and Disabled People* at Paragraph: 001 Reference ID: 63-001-20190626 Revision date: 26 June 2019

³⁰ *Healthier and Happier: an Analysis of the fiscal and wellbeing benefits of building more homes for later living*, Produced by WPI Strategy, September 2019 included as Appendix 15 to the appellant's Statement of Case

³¹ Per the appellant's *Planning Proof of Evidence* at paragraph 9.1 CD8.29

would be clear benefits in the economic sense – and in these terms the Framework makes clear that significant weight should be placed on the need to support economic growth³².

48. Accordingly, for these reasons, the proposed development's clear social, environmental and economic benefits taken together would attract very significant weight in the overall planning balance.
49. Although some would prefer to see development of family housing, given the proportion of older residents already in the District, an alternative scheme to provide such dwellings is not before me in this appeal, and in any event, for the reasons set out above, the proposed development would meet clear needs and secure a number of benefits.

European Sites

50. The Statement of Common Ground³³ and the appellant's Proof of Evidence in respect of Ecology and Nature Conservation³⁴ highlight the following European sites in close proximity to the appeal site:
- the New Forest Special Area of Conservation (SAC);
 - the New Forest Special Protection Area (SPA)
 - the Solent and Isle of Wight Lagoons SAC;
 - the Solent Maritime SAC;
 - The Solent and Southampton Water SPA and RAMSAR.
51. Where plans or projects, either alone or in combination with others, would be likely to cause significant effects to European sites, the Habitats Regulations requires the competent authority to carry out an appropriate assessment before granting such consent. For the purposes of the Habitats Regulations, I am the competent authority in respect of this appeal and will proceed on this basis.
52. In short, the internationally important interest features of the New Forest European sites derive from the heathland, water and meadow features, and the habitats they provide for, amongst others, the European honey buzzard, the hen harrier, the Eurasian hobby, the European nightjar, the woodlark, the Dartford warbler and the wood warbler. The internationally important special interest features of the Solent European sites, are, in summary, and amongst other things, the coastal lagoon, sandbank, mudflat, annual and perennial vegetation of drift lines and stony banks, shifting dunes and salt meadow features. These European sites provide a habitat for Desmoulin's whorl snail, the sandwich tern, the common tern, the little tern, the roseate tern, the dark-bellied brent goose, the Eurasian teal, the ringed plover, the black-tailed godwit, and the Mediterranean gull.

Likely Significant Effects

53. The increase in residential development that would occur as a result of the appeal scheme would be likely, in combination with other plans and projects, to

³² At paragraph 80

³³ CD7.12 at paragraph 3.8

³⁴ CD 8.27

have a significant effect on the New Forest and Solent European sites as a result of recreational disturbance. Furthermore, an increase in occupation and related transport movements is also likely, in combination with other plans and projects to lead to air quality implications that could lead to significant effects on the New Forest SAC. Moreover, in terms of the Solent European sites, the proposed development is likely to have significant effects in terms of the increase in nitrates arising as a result of the additional wastewater that would be discharged from the site.

Recreational Pressure and Air Quality

54. Recreational pressures arising from the proposed development would be likely to include disturbance of wintering birds feeding and roosting along the Solent coastline. Similarly, the disturbance of ground nesting birds in the New Forest European sites as a result of increased recreational activity arising from the site would also be likely to lead to adverse effects. Other effects could include trampling, nutrient enrichment and increased risk of wildfires as a result of increased recreational activity. In these ways, the proposal, in combination with other plans and projects, would adversely affect the integrity of the European sites.
55. There is a degree of uncertainty at this stage as to whether or not the air quality impacts of proposed developments in the New Forest District would lead to significant effects to the integrity of European sites. Nonetheless, it is necessary to apply the precautionary principle in relation to this matter, and it is not possible to establish conclusively at this stage that no adverse effects would arise to the integrity of the European sites as a result of its air quality implications.
56. It follows that, in terms of recreational pressure and air quality, the proposed development could clearly cause an adverse effect to the integrity of the relevant European sites and their conservation objectives. However, I have been supplied with a lawfully executed planning obligation pursuant to s106 of the Town and Country Planning Act 1990 (as amended), which would secure mitigation measures in accordance with the Council's Mitigation SPD and its *Developers' Contributions to Air Quality Monitoring on New Forest Habitats* note of 2 March 2021³⁵. I am also mindful of Natural England's position³⁶ on these matters, which is that appropriate financial contributions, in line with the Mitigation SPD, would provide acceptable mitigation in these terms. I consider that the unambiguous content of Natural England's consultation response in these regards means that the requirement³⁷ for consultation on this matter in terms of my appropriate assessment has been met.
57. The obligations in these regards are clearly necessary to make the proposed development acceptable in planning terms, are directly related to the proposed development, and are based on an established methodology which ensures that they are fairly and reasonably related in scale and kind to the development. Accordingly, the obligations meet the relevant legal³⁸ and national policy tests³⁹. In these terms, I am satisfied that I can take these planning obligations into account and that they would provide an effective mechanism

³⁵ CD7.18

³⁶ Set out in its consultation response on the planning application dated 24 June 2020

³⁷ Established by Reg 63(3) of the Habitats Regulations

³⁸ Per Regulation 122(2) of the Community Infrastructure Regulations 2010 (as amended)

³⁹ Per paragraph 56 of the Framework

for ensuring that adverse impacts to the integrity of the relevant European sites in terms of air quality and recreational pressure would be effectively mitigated.

Nitrates

58. Evidence produced by the Partnership for South Hampshire, which supported the production of the Local Plan, found that the majority of Solent water bodies had in most cases, less than good ecological status for elements such as dissolved inorganic nitrogen, and that wastewater treatment works in the area would reach capacity early in the plan period⁴⁰. Consequently, developments in the New Forest Plan Area which would lead to increased discharges of wastewater would be likely to cause an adverse impact to the integrity of the Solent European sites in terms of nutrient enrichment. I am also cognisant that Natural England has advised the council that development which would result in increased overnight stays in certain parts of the District (including Lymington), should achieve nitrate neutrality to avoid any likely significant effects⁴¹ to water quality in the Solent. Taking these things together, leads me to the view that without mitigation to achieve nitrate neutrality the proposed development, due to the increased wastewater discharge that it would create, would lead to an adverse effect to the integrity of the Solent European sites.
59. The appellant proposes an offsite mitigation package (the Heaton Scheme) based at a site in the Isle of Wight. In short, the Heaton Scheme would involve land being removed from active agricultural use to be planted with woodland. In doing so, the outflow of nitrates from the Heaton Scheme would reduce. The appellant would buy credits for the appropriate amount of land to be taken out of agricultural use to offset the proposed development's nitrates output. Contributions would also be included to secure monitoring of the Heaton Scheme by Isle of Wight Council.
60. Natural England confirmed⁴² that the proposed mitigation land subject to the Heaton Scheme would be appropriate to offset nitrogen from developments which would discharge to the Pennington Wastewater Treatment Works, such as the one proposed in this case. Moreover, Natural England provided a site-specific response⁴³ on this point, which confirmed that the Heaton Scheme would be an appropriate location to provide mitigation in respect of the proposed development. Given the clear position of its representations generally in terms of the Heaton Scheme taken as a whole, and specifically in relation to the proposed development, I consider that this fulfils the requirement⁴⁴ for consultation with Natural England in respect of my appropriate assessment.
61. Natural England's site-specific response emphasises the necessity for any planning obligation relating to nitrates mitigation to secure the appropriate amount of land in the Heaton Scheme. Material submitted with the appeal, including the draft overarching agreement relating to the Heaton Scheme, and a nitrogen balance calculation for the proposed development based on the

⁴⁰ Per paragraph 3.10 of the Council's *Interim Position Statement on Nutrient Neutral Development* of 4 September 2019, included as Appendix 2 of the appellant's *Planning Proof of Evidence* (CD8.29)

⁴¹ Ibid paragraph 3.13

⁴² In a letter of 21 April 2020 included at Appendix 24 of the appellant's *Planning Statement of Case* (CD7.24)

⁴³ Dated 26 November 2020 and included as Appendix 25 of the appellant's *Planning Statement of Case* (CD7.24)

⁴⁴ Established by Reg 63(3) of the Habitats Regulations

methodology established by Natural England, clearly demonstrate that the appropriate amount of land would be secured.

62. The appellant has submitted a unilateral planning obligation to secure the measures related to the Heaton Scheme, which would relate only to the area of land necessary to mitigate the proposed development's effects. However, I am mindful that neither of the parties promote this measure as their preferred option. Instead, securing the mitigation as part of the emerging overarching agreement relating to the wider Heaton Scheme as a whole would be preferred, not least as Isle of Wight Council would be a signatory to the overarching agreement and would thus be bound by its terms insofar as the responsibility for monitoring is concerned. I concur that there would be advantages in these terms of securing the mitigation via the overarching agreement rather than by the submitted unilateral undertaking.
63. The overarching agreement is not yet finalised – however, the Council indicated that it is due imminently. Consequently, the parties propose a Grampian condition, which would prevent the proposed development from being occupied prior to the mitigation measures pursuant to the Heaton Scheme being in place. This approach would be in-step with the Council's *Position Statement on Nutrient Neutral Development – Interim Nitrogen Mitigation Solution* (4 September 2019)⁴⁵, which advocates the use of such conditions.
64. As set out above, the Council cannot currently demonstrate a supply of specific deliverable sites to provide a minimum of five years' worth of housing against their adopted requirement. In this context, the requirement to enter into proposal-specific arrangements in relation to nitrates agreements in the absence of a strategic package such as that which is to be subject to the overarching agreement, could act as a further impediment to securing permissions and completions – placing the delivery of the District's housing requirement at risk. For these reasons, I am of the view that exceptional circumstances exist which would justify the imposition of a condition which requires the appellant to enter into a planning obligation, and that this approach would therefore accord with the PPG⁴⁶ in these regards.
65. In arriving at this view, I am mindful that the proposed development could commence, but that only its residential occupation would be dependent on the measures being in place, as it is from this aspect of the proposal that the nitrates impacts would arise. I am content that the principal terms of the obligation are clear from the material before me, and that its imposition would clearly meet the three legal and policy tests⁴⁷. Moreover, given that the completion of the overarching agreement is imminent, I consider that proceeding on the basis of the suggested Grampian condition would not unreasonably delay either the delivery of the development or its residential occupation. Taking these things together leads me to the view that the use of a Grampian condition in these circumstances would clearly accord with the advice set out in the PPG. For these reasons, I consider that the planning obligations contained in the unilateral undertaking related to this matter to be

⁴⁵ Included as appendix 2 of the appellant's *Planning Proof of Evidence* (CD 8.29)

⁴⁶ *Use of Planning Conditions Paragraph: 010 Reference ID: 21a-010-20190723 Revision date: 23 07 2019*

⁴⁷ Per Regulation 122(2) of the Community Infrastructure regulations 2010 (as amended); and paragraph 56 of the Framework

unnecessary in this case, and they therefore carry no weight in my assessment of the appeal's merits⁴⁸.

Appropriate Assessment

66. For the reasons set out above, the proposed development would be likely to give rise to adverse effects to the integrity of European sites in terms of its recreational, air quality and nitrates impacts. However, the combination of the planning obligation which secures policy compliant mitigation in terms of recreational and air quality impacts; and the imposition of a condition requiring nitrate mitigation prior to the first occupation of the proposed development would ensure that the appeal scheme would not adversely affect the integrity of the relevant European sites. Consequently, I conclude that the proposed development would be acceptable in these terms, and would accord with Policy ENV1 of the Local Plan, insofar as it requires developments to avoid adverse effects to the integrity of European sites.

Optional Technical Standards

67. The Council suggested a condition which would require the proposed dwellings to meet the optional technical standard for wheelchair adaptable housing and cited Policy IMPL2 of the Local Plan as a justification for this. Although the Council withdrew this suggested condition during the course of the Inquiry, I am nevertheless mindful that s38(6) of the Planning and Compulsory Purchase Act 2004 (as amended) requires me to determine applications in accordance with the development plan unless other material considerations indicate otherwise. Policy IMPL2 requires sheltered housing to be built to the wheelchair adaptable dwelling standard of Part M4(3)2a of the Building Regulations. The proposed development would not meet this standard, a matter not disputed by the appellant. Consequently, in this respect the appeal scheme would conflict with the Local Plan insofar as this policy is concerned.
68. It is important to note that the appeal is pursuant to an application for full planning permission, rather than an outline scheme, and thus the internal arrangement of the proposed development would be fixed per the approved plans should permission be forthcoming – meaning that a condition requiring these standards would be likely to render the scheme unimplementable. I am mindful also that the design of the appeal scheme seeks to achieve the M4(2) Optional Building Regulations standard for accessible and adaptable dwellings⁴⁹ – albeit that without a condition specifying this, I accept that the Council could not enforce this standard. In any event, the proposed development would cater for a range of occupants, and not only those with impaired mobility. Consequently, I am not persuaded that a requirement for the higher optional standards to be deployed in all of the proposed dwellings would be either reasonable or necessary in this case.
69. Accordingly, taking these matters together with the benefits of the proposed development that are set out above, it is my view that any harm that would occur as a result of the appeal scheme's variance with Policy IMPL2 of the Local Plan does not significantly and demonstrably outweigh the proposed development's benefits – matters to which I accord very significant weight. In

⁴⁸Clause 6.6 of the unilateral undertaking indicates that in such a circumstance, the relevant obligations cease to have effect from the date of this decision

⁴⁹ *Rebuttal to the Proof of Evidence of Mr Gilfillan*, Contact Consulting, 30 April 2021 at paragraph 6 (CD 8.38)

arriving at this view, I am cognisant that the Council does not cite Policy IMPL2 in any of its reasons for refusal, and I have not been made aware of any material which indicates that compliance with the higher optional standard was sought prior to the appeal stage.

Highway Safety and Parking

70. The submitted plans depict works in the highway which would entail a dedicated right-turn lane from Stanford Hill to the access to the proposed development – and this measure could be secured by a condition – as could appropriate visibility splays from the proposed access. Consequently, whilst traffic movements associated with the site would undoubtedly increase as a result of the proposed development, these measures would ensure that its highway safety implications would be acceptable.
71. The appeal site is also in an accessible location in close proximity to the town centre and related bus routes and makes provision for mobile scooter parking and charging. Taken together, these aspects of the appeal site and the proposed development would allow its future occupants to use alternative transport modes and reduce the reliance on the private car. So, whilst I note views that the proposed development would not supply an adequate amount of car parking, I consider the provision it makes would not lead to any harmful overspill parking on adjacent streets. I am mindful also that the local highway authority has no objections to the proposed development in highway safety or parking terms.

Living Conditions

72. An electricity substation would be located in the corner of the site adjacent to 14 and 15 Bucklers Mews. The principal windows of these properties are in their front elevations, which are orientated away from the appeal site and the proposed substation, with only smaller windows at ground floor on other elevations – which the approved plans⁵⁰ for the Bucklers Mews properties indicate relate to kitchens and shower rooms. Moreover, I am mindful that the noise report submitted by the appellant⁵¹, finds that the noise effects of the substation would be negligible. Additionally, a condition, which would restrict the noise generated by the sub-station could be attached, and this would secure acceptable limits in these terms – a matter with which the Council agrees. Although I am mindful of comments relating to health and safety aspects of the proposed substation, I am satisfied that it will meet the relevant regulatory standards for such installations which are matters outside of the scope of planning control.
73. I acknowledge that due to their height and orientation of some of the proposed windows and balconies that these could lead to some overlooking of neighbouring properties. However, the installation of obscure glazing could be secured by condition and this, taken together with existing and proposed landscaping, would ensure that the proposed development would not materially reduce the level of privacy available to the occupants of neighbouring properties.

⁵⁰ Included as Appendix 27 of the appellant's *Planning Statement of Case* (CD7.24)

⁵¹ According to the *Statement of Case on Noise* included as Appendix 27 of the appellant's *Planning Statement of Case* (CD7.24)

74. As set out above, the proposed building would be taller than the dwellings currently at the appeal site, and the footprint of the rear wing would extend over an area of what is currently garden space. Nevertheless, the proposed development would be adequately separated from the appeal site's rear boundaries, and further still from the dwellings which address Belmore Road. Moreover, existing and proposed landscaping both within the appeal site and in the properties to its rear would screen views through from the Belmore Road properties to the appeal site. I saw also that the closest properties at Bucklers Mews are orientated in a way which present no direct views of the appeal site from its windows.
75. For these reasons I consider that, whilst undoubtedly more visible than the dwellings currently on the appeal site from some adjacent dwellings, the proposed development would not harmfully reduce the outlook available from the properties to its rear. Moreover, the distance achieved by the proposed building from the boundaries of its site would ensure that the amount of daylight and sunlight available to the occupants of adjacent dwellings would not be materially reduced as a result of the appeal scheme. Similarly, the proposed development's distance from, orientation to, and the lower level of the appeal site in comparison with the properties on Highfield would mean that the outlook available from the latter buildings' front windows would not be reduced to any meaningful extent. These relationships between the Highfield properties and the proposed development would also mean that adequate privacy would remain (and be provided for) their occupants.
76. These considerations therefore lead me to the conclusion that the proposed development, subject to the conditions that I have mentioned, would cause no adverse effects to the living conditions of the occupants of adjacent dwellings
77. Some consider that the density of the proposed development may not secure adequate living conditions for its future occupants, citing social distancing measures pursuant to the COVID-19 pandemic in support of this view. However, the proposed development would provide adequate amounts of internal and external space, and as a result I consider that it would secure a high standard of amenity for its future occupants.

Affordable Housing

78. The application that led to the appeal was supported by a viability statement, which was independently reviewed⁵² on behalf of the Council. The independent review found, for site and proposal-specific reasons, that an affordable housing contribution would not be viable. I concur with the independent review that the appellant's viability evidence is reasonable. Moreover, for the reasons set out above, the proposed development would deliver specialist housing for older people for which there is a clear need. Consequently, the lack of provision of affordable housing, either on-site or in the form of a commuted sum is justified in this case, and would accord with Policies IMPL1 and HOU2 of the Local Plan insofar as taken together, and amongst other matters, they require the viability of development to be taken into account in decisions relating to the provision of affordable housing. In arriving at this view, I am cognisant that the Council raised no objections to the proposed development in these terms.

⁵² CD2.18

Health Considerations

79. At the application stage, the Royal Bournemouth and Christchurch Hospitals NHS Foundation Trust sought a contribution from the proposed development to support the provision of its services during the first year of the proposed development's occupation to fill the gap that would occur until general funding available to the Trust increases in line with any overall increases in population. However, there is no specific Local Plan policy requiring such a contribution, and the viability material provided indicates that the proposed development would not be able to provide this in any event.
80. Moreover, I am mindful of the aforementioned research provided by the appellant⁵³, which indicates that each person living in a home for later living such as those proposed in this case would benefit from reduced risks of health challenges, which could lead to circa £3,500 savings per occupant per annum to the NHS and social services. To my mind, this gives further evidential weight to the PPG⁵⁴, insofar as it states that offering older people a better choice of accommodation to suit their changing needs can help reduce costs to the social care and health care systems. Also as set out above, based on sales of another comparative property in Brockenhurst, a considerable proportion of the proposed development's occupants would be likely to come from the existing catchment area for the NHS Foundation Trust – albeit I readily accept that some population increase could potentially occur both as a result of some in-migration to the proposed dwellings, and as a result of larger homes made available through the appeal scheme's future occupants down-sizing.
81. Nevertheless, these site and proposal specific reasons lead me to the view on this matter that the obligation sought by the Foundation Trust would not be necessary to make the development acceptable in planning terms and thus would not meet the requirements of the Community Infrastructure Levy Regulations 2010 (as amended)⁵⁵ or the Framework⁵⁶ in this respect. Consequently, the unilateral undertaking submitted by the appellant to address this matter carries no weight in my assessment of the appeal's merits⁵⁷.
82. Furthermore, given the potential for specialist older people's housing to reduce health risks, and thus pressure on related services, taken together with the likelihood that a considerable proportion of the occupants of the appeal scheme would come from the District, I consider that the proposed development would not give rise to any unacceptable additional pressure on local health services.

Flood Risk

83. The appeal site is located in Flood Zone 1 which means that there is a low probability that river or sea flooding would affect it⁵⁸. Conditions requiring the implementation and maintenance of an appropriate drainage system have been

⁵³ *Healthier and Happier: an Analysis of the fiscal and wellbeing benefits of building more homes for later living*, Produced by WPI Strategy, September 2019 included as Appendix 15 to the appellant's Statement of Case (CD7.24)

⁵⁴ *Housing for Older and Disabled People* at Paragraph: 001 Reference ID: 63-001-20190626 Revision date: 26 June 2019

⁵⁵ Regulation 122(2)

⁵⁶ At paragraph 57

⁵⁷ In such a circumstance, Clause 6.4 of the submitted unilateral undertaking sets out that the relevant obligations cease to have effect from the date of this decision

⁵⁸ Per the PPG *Flood Risk and coastal change* Paragraph: 065 Reference ID: 7-065-20140306 Revision date: 06 03 2014

sought and can be imposed. I am also mindful that the Lead Local Flood Authority has raised no objections to the scheme subject to such conditions. Accordingly, I am of the view that the proposed development would be acceptable in these terms and would not lead to increased flood risk on the appeal site or elsewhere.

Planning Balance

84. Although the proposed development would not secure housing which would meet the M4(3)2a optional technical standard and would thus be at variance with Policy IMPL2 of the Local Plan in this respect, the very significant benefits it would yield combined with the other material considerations referred to above (including the operation of the tilted balance, as set out in the Framework) would justify a decision other than in accordance with the development plan in this instance.
85. Furthermore, taken together, the above-matters also lead me to the view that the proposed development would accord with Policy STR1 of the Local Plan insofar as it expects, amongst other things, all new development to make a positive social, economic and environmental contribution to community and business life in the Plan Area. In my judgement, the appeal scheme would in all other respects accord with the development plan.
86. Whilst some consider that the appeal scheme could create a precedent for further development in the area, I have considered this site-specific proposal on its own merits. My decision in this case would not therefore create a precedent for proposals elsewhere in the area, or for instances where the harmful effects of proposals are not outweighed by their benefits.

Conditions

87. The Framework sets out⁵⁹ that conditions should be kept to a minimum and only imposed where they are necessary, relevant to planning and to the development to be permitted, enforceable, precise and reasonable in all other respects. I have considered the suggested conditions on this basis. In the conditions I have attached, I have made minor amendments to their wording in the interests of clarity⁶⁰. Where conditions require compliance with them prior to the commencement of the proposed development, the appellant has supplied their written agreement⁶¹ to their terms⁶².
88. In the interests of certainty, it is necessary to attach a condition that specifies the approved plans.
89. A condition is imposed which requires the submission of a construction management plan to the Council for its approval prior to the commencement of development on the site. As the construction management plan will set out the measures to be adhered to during the appeal site's development phase, elements of the condition of necessity require compliance prior to the commencement of development. For these reasons, I consider the imposition of this condition to be clearly justified.

⁵⁹ At paragraph 55

⁶⁰ Condition numbers 3, 4, 5, 8, 10, 12, 13, 14, 16, 17, 18, 19

⁶¹ ID9 *Agreement to pre-commencement conditions*

⁶² Per s100ZA of the Town and Country Planning Act 1990 (as amended)

90. In the interests of biodiversity, as well as the character of the site and its surroundings, and to ensure that existing trees that are due to be retained are adequately protected, a condition is attached which requires compliance with the appellant's submitted *Arboricultural Assessment and Method Statement*⁶³ and related details. Given the criticality of protecting the trees during the construction phase of the development there is clear justification for requirement for these measures to be in place prior to the demolition of the houses currently on the appeal site.
91. A condition is attached, which requires details of the materials to be used in the external construction of the appeal scheme to be submitted to the Council prior to their use. This condition is necessary in the interests of the character and appearance of the site and its surroundings.
92. As set out above, the proposed landscaping elements of the appeal scheme are integral to its overall townscape quality. It is for this reason that a condition is attached which requires timely implementation of the landscaping proposals in accordance with the approved plans – and requires replacement of trees should this be necessary within 5 years of the proposed development's completion. For substantially similar reasons, a condition is attached which requires the implementation of the front boundary treatment and planting as depicted in the plans prior to the first occupation of the proposed development.
93. In the interests of highway safety, a condition is attached which requires visibility splays in line with those shown on the submitted plans to be provided, and to remain free from obstruction. I am of the view that any restriction of permitted development rights that this condition could entail would be clearly justified in the interests of highway safety. The same condition would also ensure that the proposed development would provide adequate amounts of car and scooter parking, including charging points.
94. Also in the interests of both highway safety and of the character of the streetscene a condition is attached which requires details of the highways works that would be required to facilitate the dedicated right turn and highway crossovers and the removal of redundant crossovers to be submitted and approved prior to the commencement of the development. The condition requires these measures to be implemented prior to the first occupation of the proposed development.
95. Given the criticality of these measures to ensure the highway safety of the development in its day-to-day use a pre-commencement condition is clearly justified in this case. I have made a minor modification to the suggested condition to ensure that it is relevant to planning insofar as the details of the local highway authority's approval are to be supplied to the Council prior to the commencement of the development. The local highway authority raises no objection to the scheme subject to the implementation of the highway works set out in the condition. A Grampian condition in this instance is therefore clearly justified as there is a reasonable prospect that those highway works would be carried out in a timely fashion.
96. In the interests of the residential amenity of the occupants of adjacent dwellings conditions requiring the installation and retention of obscure glazing

⁶³ Produced by Barrell Tree Consultancy, Dated 17 April 2020

in identified windows and balustrades are clearly justified and are accordingly imposed.

97. To ensure that the appeal scheme would provide housing to meet the needs of older residents in accordance with the description of development given in the banner heading, a condition is attached which restricts the occupancy of the proposed dwellings to those aged 60 or above and their spouses or partners.
98. To ensure that the proposed development would provide adequate drainage and that development of the appeal site would not increase flood risk elsewhere, a condition is attached which requires the implementation of a drainage system in accordance with previously submitted details. Moreover, to ensure that the drainage infrastructure remains effective over the lifetime of the development, a condition is imposed which requires details and schedules of protection measures and maintenance arrangements for the surface water drainage system to be submitted to the Council for its approval and implemented in accordance with the approved details. I have made minor modifications to the suggested wording of this condition in the interests of precision and enforceability.
99. As set out above, in order to ensure that the noise created by the proposed electricity substation would cause no material harm to the living conditions of the occupants of 14 and 15 Bucklers Mews a condition is attached to ensure that acceptable limits are placed on this in line with the relevant British Standards, and as set out in the appellant's noise report⁶⁴.
100. A condition is included to secure a biodiversity net gain on the site to ensure that the development would accord with Policy DM2 of the Local Plan in this regard, and to secure the benefit anticipated in documents submitted with the appeal. For substantially similar reasons, a condition is attached requiring the implementation and maintenance of the green roof. Also in the interests of biodiversity, and to ensure that any bats present on the site are adequately protected during construction and related activity, a condition is attached which requires details of appropriate licences for relevant works to be supplied to the Council prior to the commencement of any activities which may have an effect on their roosts.
101. I set out above the specific justification for including a Grampian condition which requires the submission of a mitigation package in respect of the proposed development's nitrates output. Accordingly, a condition to this effect is attached as it is necessary in the interests of the integrity of European sites. The condition imposed includes some minor amendments to the wording supplied by the Council, in the interests of enforceability and precision; and to ensure that the drafting conforms with the PPG advice relating to such conditions – particularly that they should be negatively worded⁶⁵.

Conclusion

102. For the reasons set out above, and taking fully into account all other matters raised, I conclude that the appeal should succeed.

G J Fort

INSPECTOR

⁶⁴The *Statement of Case on Noise* included as Appendix 27 of the appellant's *Statement of Case* (CD7.24)

⁶⁵ *Use of Conditions* Paragraph: 009 Reference ID: 21a-009-20140306 Revision date: 06 03 2014 and Paragraph: 010 Reference ID: 21a-010-20190723 Revision date: 23 07 2019

Schedule of Conditions

- 1) The development hereby permitted shall begin not later than 3 years from the date of this decision.
- 2) The development hereby permitted shall be carried out in accordance with the following approved plans:
 - Topographical Survey 2810-SV-1
 - Existing Floor Areas 2810-SV-2
 - Location Plan 1913 30
 - Site Plan 1913 31
 - Site Plan First Floor 1913 32
 - Lower Ground Floor 1913 33
 - Ground Floor Plan 1913 34
 - First Floor Plan 1913 35
 - Second Floor Plan 1913 36
 - Roof Plan 1913 37C Rev C
 - Proposed Elevations 1913 38
 - Proposed Elevations 1913 39
 - Indicative Street Scene and Site Section 1913 40
 - Section A-A 1913 41
 - Section B-B 1913 42
 - Section C-C 1913 43
 - Section D-D 1913 44
 - General Landscape Arrangement 1632-GA-100 REV K
 - Graphic Landscape Plan 1632-GP-101 REV K
 - Section A and B 1632-GP-102 REV A
 - Section C 1632-GP-103 REV A
 - Planting Plan 1632-PP-300 Rev L
 - Planting Schedule 1632-PP-301 Rev L
 - Tree Protection Plan 19028-BT2
- 3) No development shall take place, (including any works of demolition), until a Construction Method Statement (CMS) has been submitted to, and approved in writing by, the local planning authority. The approved CMS shall include scaled drawings illustrating the provision for:
 - 1) The parking of site operatives' and visitors' vehicles;
 - 2) Loading and unloading of plant and materials;
 - 3) Management of construction traffic and access routes;
 - 4) Details of construction access and construction vehicle tracking;
 - 5) Storage of plant and materials used in constructing the development;
 - 6) Details of the method of cleaning wheels and chassis of all HGVs, plant and delivery vehicles leaving the site and the means of keeping the

site access road and adjacent public highway clear of mud and debris during site demolition, excavation, preparation and construction.

The agreed CMS shall then be adhered to for the duration of construction of the development hereby permitted.

- 4) Prior to demolition of the existing houses at the site, the tree protective measures recommended by the Barrell Tree Consultancy *Arboricultural Assessment and Method Statement* (reference:19028-AA-PB dated 17 April 2020) and the Tree Protection Plan (reference: 19028-BT2) shall be installed and thereafter retained for the duration of the construction period for the development hereby approved. No fires, building operations, storage of goods including building materials, machinery and soil, or discharge of any chemical substances, including petrol and diesel, shall be undertaken within the tree protection zones or within the canopy spreads, whichever is the greater, nor shall any change in soil levels or routing of services within those defined areas be carried out.
- 5) Prior to their use, details of all materials to be used in external facing walls, roofs, doors, windows, balustrades and hard surfaces shall be submitted to and approved in writing by the local planning authority. The development shall be constructed in accordance with the approved details.
- 6) All external hard and soft landscape works shall be carried out in accordance with the approved plans and details within one year of the first residential occupation of development. Any trees or plants which within a period of 5 years from the completion of the development die, are removed or become seriously damaged or diseased shall be replaced in the next planting season with others of similar size and species.
- 7) Prior to occupation of the development hereby approved the parking spaces, accesses, manoeuvring space, visibility splays and motorised scooter store (with electric charging points) shown on the approved plans shall be provided. The parking spaces shall be retained and kept available for the parking of residents and their visitors only. The visibility splays shall be kept clear of any obstructions over 0.6m in height.
- 8) Prior to occupation of the relevant flats, the windows on the south elevation shown to be obscure glazed on the plan ref: Proposed Elevations 1913-38, shall be obscurely glazed, top hung and shall not open outward more than 200mm and shall be retained as such.
- 9) Prior to occupation of the relevant flats, the 1.8m high obscure glazed balcony screens, shown on the approved plans, shall be installed and thereafter retained as such.
- 10) Prior to first residential occupation of the development hereby approved the boundary treatment as shown on the approved plans shall be planted, implemented and installed, as appropriate, and thereafter maintained and retained.
- 11) The sheltered apartments comprising the development hereby permitted shall only be occupied by persons of sixty years or over, and the spouse or partner of such a person and in the event of the death of such person,

the spouse or partner of such person shall be permitted to remain within the retirement apartments irrespective of whether they are aged sixty years or over.

- 12) Development shall not take place until details of the works in the highway to provide:
- The access and egress pavement crossovers and the right turn lane on the A337, as shown in principle on drawings PBA 107.0008.006 Rev C (included in the *Stanford Hill Lymington Transport Statement produced by Paul Basham Associates*) and Site Plan 1913.31; and
 - Removal of the existing pavement crossovers serving High Bank, Silver Birches and Hill View from the A337 and reinstatement of the kerb, pavement and verge;

Shall have been submitted to the local highway authority for approval for the purposes of s278 of the Highway Act 1980; and evidence of the local highway authority's s278 approval shall have been provided to the local planning authority.

The development hereby permitted shall not be occupied until the works in the highway have been constructed in accordance with the approved details.

- 13) Prior to the occupation of the development hereby approved, the drainage system shall be constructed to achieve the proposed discharge rate of 5.0 l/s, in accordance with the designs and details set out in *Hydraulic Modelling Calculations for 44 Unit Scheme Stanford Hill, Lymington produced by Arch Associates DRAINAGE STRATEGY LAYOUT*; Project No: AAL160; Drawing No: 502; Revision: P2; dated: APRIL 2020, received 17/09/20 unless otherwise agreed in writing with the local planning authority.
- 14) Details for the long-term maintenance arrangements for the surface water drainage system shall be submitted to and approved in writing by the local planning authority prior to the first occupation of the development hereby approved. The submitted details shall include:
- a. Maintenance schedules for each drainage feature type and ownership;
 - b. Details of and timescales for implementation of protection measures;
- The agreed maintenance and protection measures shall be implemented thereafter in accordance with the approved details, schedules and timescales.
- 15) The rating noise level from the proposed substation, determined in accordance with the requirements of BS 4142: 2014 + A1:2019 *Methods for rating and assessing industrial and commercial sound* shall not exceed the prevailing representative background noise level by more than minus 10 dB in any external amenity space or at the nearest habitable room window (under free-field conditions) at numbers 14 and 15 Bucklers Mews at any time.
- 16) Any works that impact on the bat roosts (day roost for common pipistrelle at Silver Birches (garage) and day roost for brown long-eared at High Bank as identified in the Phase 2 Bat Survey Report undertaken by Abbas Ecology (Dated August 2019)) shall not in any circumstances

commence unless the local planning authority has been provided with either:

a) a licence issued by Natural England authorising the specified activity/development to go ahead; or

b) a statement in writing from the relevant licensing body to the effect that it does not consider that the specified activity/development will require a licence.

17) No construction works above damp proof course level shall take place until a Biodiversity Net Gain (BNG) Management Plan has been submitted to and approved in writing by the local planning authority (covering a minimum period of 30 years). The management plan should include:

- Methods and timetable for delivering BNG;
- Responsibilities for delivering BNG – during and after construction;
- Description of the habitats to be managed;
- Clear timed and measurable objectives in the short, medium, and long-term for BNG - Detail objectives for all habitats (target condition);
- A commitment to adaptive management in response to monitoring to secure the intended biodiversity outcomes;
- Details for a formal review process when objectives are not fully reached / roles and responsibilities;

The agreed BNG and management plan shall be implemented and maintained in accordance with the agreed timescales and schedules unless otherwise agreed in writing with the local planning authority.

18) The roof of the development hereby permitted shall not be constructed until full details and specification of the biodiverse extensive (green/brown) roof(s) as shown on the approved plan have been submitted to and approved in writing by the local planning authority. The biodiverse roof(s) shall be implemented in accordance with the details approved and shall be maintained as such thereafter.

19) The development hereby permitted shall not be occupied until:

- A water efficiency calculation in accordance with the Government's National Calculation Methodology for assessing water efficiency in new dwellings has been undertaken which demonstrates that no more than 110 litres of water per person per day shall be consumed within the development, and this calculation has been submitted to, and approved in writing by, the local planning authority; all measures necessary to meet the agreed waste water efficiency calculation must be installed before first occupation and retained thereafter;
- A mitigation package addressing the additional nutrient input arising from the development has been submitted to, and approved in writing by, the local planning authority. Such mitigation package shall address all of the additional nutrient load imposed on protected European Sites by the development when fully occupied and shall allow the local planning authority to

ascertain on the basis of the best available scientific evidence that such additional nutrient loading will not have an adverse effect on the integrity of the protected European Sites, having regard to the conservation objectives for those sites; and

- The mitigation package shall include a timetable for implementation and measures for retention and maintenance of that mitigation package.

The mitigation package shall thereafter be implemented, maintained and retained in accordance with the approved timetable.

*****End of Conditions Schedule*****

APPEARANCES

FOR THE LOCAL PLANNING AUTHORITY:

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Instructed by Amanda Wilson,
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He called:

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INTERESTED PARTIES:

Councillor Andrew Peter Ash-Vie

Chair of the Lymington and
Pennington Town Council Planning
Committee

Don Mackenzie

Deputy Chair, The Lymington
Society

DOCUMENTS SUBMITTED AT THE INQUIRY:

- ID1 – Appellant’s Opening
- ID2 – Council’s Opening
- ID3 – Lymington and Pennington Town Council Statement
- ID4 – Note to the Inspector on the overarching agreement and the unilateral undertaking
- ID5 – Secretary of State Decision Letter on APP/P1133/W/18/3205558 Land at Wolborough Barton, Coach Road, Newton Abbot TQ12 1EJ
- ID6 – Mitigation for Recreational Impact on New Forest European Sites Supplementary Planning Document
- ID7 – List of Suggested Conditions
- ID8 – Note on the current availability of Market Retirement Accommodation in New Forest District Council
- ID9 – Appellant’s agreement to pre-commencement conditions
- ID10 – Appeal Decision APP/N1730/W/20/3261194
- ID11 – Statement of the Lymington Society
- ID12 – Chris Cox Rebuttal Clarification
- ID13 – Closing Submissions on behalf of the Council
- ID14 – *Hallam Land Management Ltd v Secretary of State for Communities and Local Government and Eastleigh Borough Council* [2017] EWHC 2865 (Admin)
- ID15 – Closing Submissions on behalf of the appellant

DOCUMENTS SUBMITTED BY AGREEMENT AFTER THE INQUIRY:

- 1 - Unilateral Undertaking relating to Nitrates Mitigation: Dated 20 May 2021
- 2 - Unilateral Undertaking relating to Health Contributions: Dated 20 May 2021
- 3 - Section 106 planning obligations relating to mitigation of recreation impacts and air quality: Dated 26 May 2021