



INDEPENDENT REVIEW OF NUTRIENT MITIGATION PROPOSED AT STANSTED PARK

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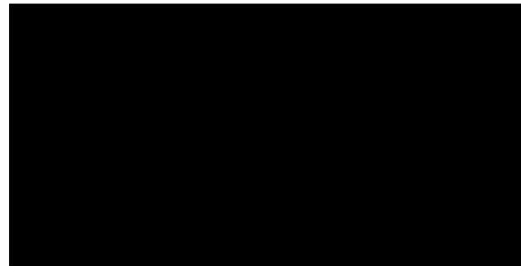
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1. INTRODUCTION

The November 2018 ruling by the Court of Justice of the European Union (CJEU), referred to as the Dutch N Case or Dutch Case, ruled that increased atmospheric nitrogen deposition to Dutch European sites resulting from new projects and plans may pose a risk to “site integrity” due to the link between nutrient enrichment and eutrophication. Natural England now considers that the CJEU judgement applies to increased nutrient loading to European sites in England and therefore Competent Authorities need to consider the risk of significant impacts that could arise from plans or projects that increase nutrient inputs to European sites. There is therefore demand for nutrient mitigation schemes to offset impacts of new residential developments within relevant catchment areas.

NE’s legal advice on Nutrient Neutrality made clear that nutrient loading impact pathways would need to be screened into a Habitats Regulations Assessment (HRA) for new developments that could increase nutrient discharge to European sites. Each new development that increases the number of overnight stays and thus increases the production of wastewater and associated nutrient loading by *any amount* to European sites already in unfavourable condition due to nutrient loading may not be legally consented. Following the People Over Wind ruling of the CJEU, mitigation measures cannot be incorporated at the screening stage of an HRA (Stage 1), and so new developments can be screened into an HRA Stage 2 Appropriate Assessment (AA) due to “likely significant effects” on European sites resulting from increases in nutrient loads from the development. An AA can incorporate mitigation measures into its assessment of adverse effects on conservation sites. To assess the requirement of a housing development for mitigation of the nutrient loading impact pathway, NE requires developers / Local Planning Authorities (LPAs) to produce a nutrient budget for the development. If the nutrient budget shows the development will result in an increase in nutrients coming from the development compared with the current land use, mitigation will be required to ensure the development is “nutrient neutral”.

An applicant has submitted a planning application for a residential development of 210 dwellings at Long Copse Lane, Emsworth, Havant (hereafter referred to as the ‘application site’). The application site falls within the Chichester Harbour fluvial catchment and without proper mitigation is likely to have an adverse impact on the site integrity of the Chichester and Langstone Harbours Special Protection Area (SPA), and the wider Solent SAC. The site is in unfavourable condition, in part due to excess nitrogen levels. Thus, in accordance with the ‘Dutch Nitrogen’ case ruling in 2018, new developments that increase nutrient loading to a European Designated site without appropriate mitigation in place will no longer be compliant with the Habitat Regulations. As such, the applicant has needed to a) ascertain if the development will result in ‘Adverse Effects on Site Integrity’ due to causing a net increase in nutrient loading to the site; b) provide mitigation of any net increase in nutrient loading to the site to demonstrate nutrient neutrality as part of the HRA.

In demonstrating that the application will be nutrient neutral a nutrient balancing assessment, budget calculator and a hydrogeological appraisal of the land at Stansted Park has been undertaken (see section 2 for details.) Ricardo Energy & Environment (Ricardo) was commissioned by Havant Borough Council to undertake an independent review of the technical reports with reference to their scientific validity and alignment with the Natural England’s advice that LPAs undertake HRAs of proposals and the guidance on implementing the nutrient neutrality approach¹ and Council’s Position Statement and Mitigation Plan for Nutrient Neutral Development (hereafter referred to as the ‘Council’s Position Statement’). This position statement was produced in line with the former. It should also be noted that Natural England Solent Nutrients Guidance (v5 June 2020) remains relevant with regard to mitigation options with the exception of wetlands. The review focuses on the site’s hydrology and the resulting impact on lag times, the validity of the mitigation site’s location in reference to the affected harbours, and the likely impact of the application on the integrity of the designed sites. This will be considered to ensure that the documentation has been prepared in accordance with Natural England’s methodology. As part of this review, Ricardo will also consider representations from Dr. Mason.

¹ See Natural England Water Quality and Nutrient Neutrality Advice (16 March 2022) (NE785) available here: <http://publications.naturalengland.org.uk/publication/4792131352002560>

2. MITIGATION SCHEME OVERVIEW

Mitigation is required for the proposed development as it will cause an increase of nitrogen outputs to the Solent, specifically Chichester and Langstone Harbours SPA/Ramsar via wastewater and surface water. The planning application comprises 210 residential dwellings with 8.1 ha of new urban area and 6.5 ha of Open Space². A nutrient budget calculator populated with site-specific information calculates 263.23 kg TN/year needs to be mitigated to ensure the development is nutrient neutral. To achieve this, Tetra Tech have provided a nutrient balancing assessment outlining plans to return cereal cropland at Stansted Park back to a semi-natural state, in perpetuity. Calculations suggest that the mitigation provided totals 301.54 kg TN/year which exceeds the 263.23 kg TN/year that will be produced by the development.

3. REVIEW OF BASELINE CONDITIONS

3.1 DATA REVIEW

Ricardo has reviewed the documentation regarding the proposed nutrient mitigation scheme at Stansted Park provided by Havant Borough Council. As part of the review we have evaluated the following documents:

H2Ogeo: Hydrogeological appraisal of land at Stansted Park;

Tetra Tech: Nutrient balancing assessment; and

Nutrient Budget Calculator – Version 2.

The review is presented in Sections 4.1 and Section 4.2 of this report. Furthermore, Ricardo has also considered a number of representations presented by Dr David C. Mason who has raised particular concerns around the proposed development and the associated mitigation scheme(s), and these are discussed in Section 4.2.4.

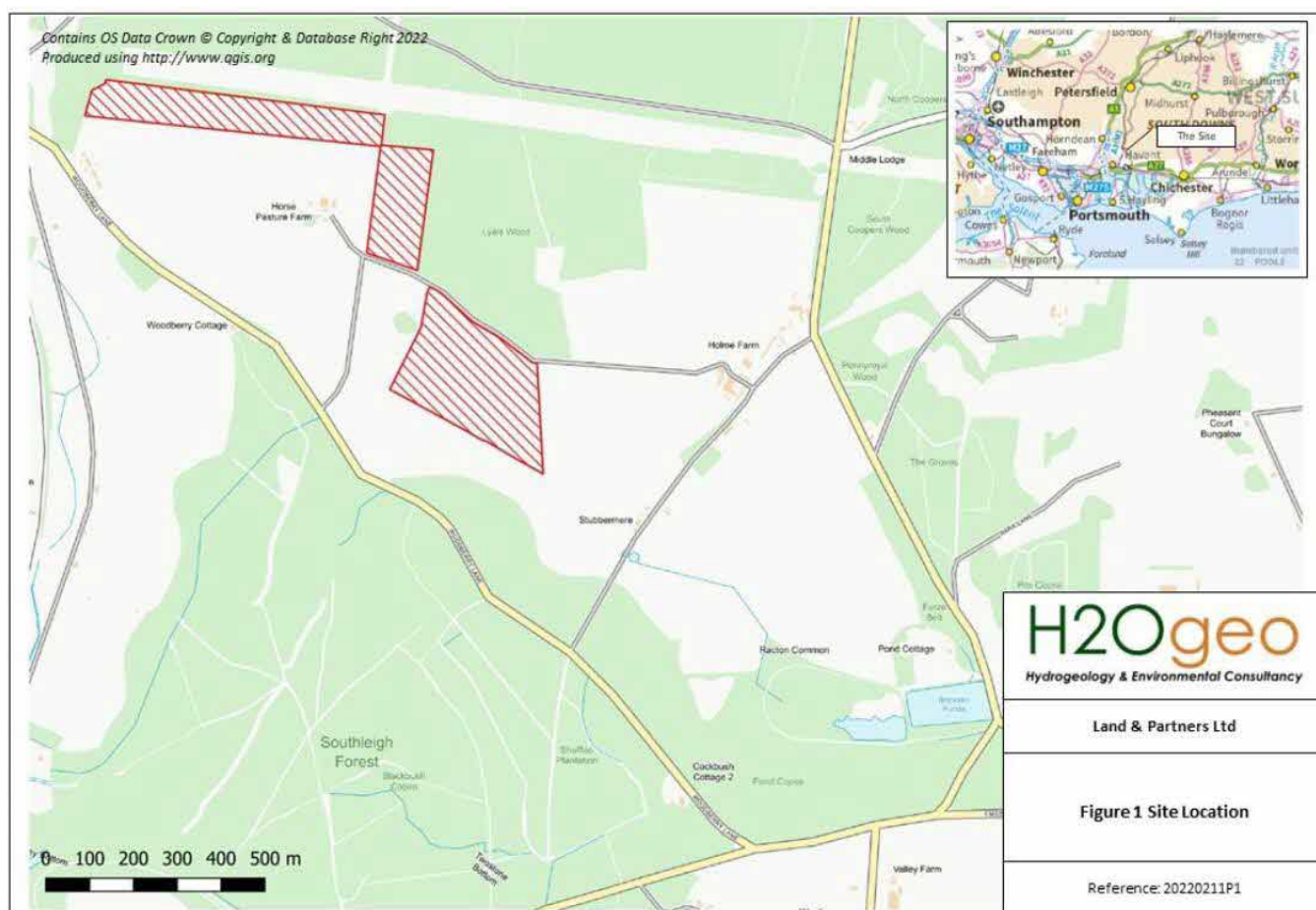
3.2 SITE LOCATION

The mitigation scheme associated with proposed development has identified three field areas of mitigation at Stansted Park near Horsepasture Farmhouse situated to the east of Rowlands Castle, and on the boundary between West Sussex and Hampshire.

The three sites are currently used as agricultural land and are all situated upstream of the proposed development. These mitigation sites cover three areas defined in the Hydrogeological Appraisal report as 'northern, central and eastern' areas. The areas are located within the South Downs National Park with elevation between about 40m and 50m above Ordnance Datum (aOD). The location of the three mitigation sites is presented in Figure 3-1.

² Comprising 0.065 ha open urban, 5.755 ha greenspace, 0.55 ha retained woodland, and 0.1 ha community food growing.

Figure 3-1 – Mitigation sites location (taken from the H2O Hydrogeological Appraisal report)



3.3 ENVIRONMENTAL SETTING

3.3.1 Geology

A review of BGS Geology Viewer and the Fareham Solid and Drift Sheet 316 Fareham 1:50,000 geological map (noting that this is the most geographically relevant mapping) was undertaken to understand the superficial and bedrock geology beneath the sites. These maps indicate that superficial deposits are absent, and the three sites are underlain by the Tarrant Chalk Member with some residual Lambeth Group sand in the central and southern areas.

The stratigraphic sequence and the full thickness of the formations is not known as no intrusive ground investigation was carried out on site as part of this study. An exploratory hole some 500m to the south of the site (SU70NW337) describes what is possibly the Lambeth Group as grey silty SAND, overlying SILT and stiff silty CLAY.

3.3.2 Hydrology and hydrogeology

The three sites are situated across two separate surface water catchments. The northern and central locations are largely within the River Lavant (Hants) catchment which discharges to the Langstone Harbour about 6km to the south-west. The southern site is located within the River Ems catchment that joins Chichester Harbour approximately 5.5km to the south.

The DEFRA MAGIC website identifies the bedrock aquifer designations beneath and around the site to be:

- Principal aquifer bedrock: Tarrant Chalk Member; and
- Secondary A aquifer bedrock: Lambeth Group.

The sites are predominantly located within a groundwater Source Protection Zone (SPZ) 1 associated with the nearby public water supply source Havant and Bedhampton springs. It is noted that SPZ1 is defined as an area with a 50 day travel time from the aquifer water table to the associated water abstraction.

There is no available groundwater monitoring data for the sites and the exact water levels within the bedrock formations are not known. The BGS Hydrogeological Map of the South Downs indicates that the expected water level in the Chalk to be between about 10 to 20m AOD (corresponding to approximately 20m below the existing ground level) with a prevalent groundwater flow direction from north to south-southwest. Whilst solution features (e.g. fractures in the chalk etc) are not recorded as being present at the site, there is still potential for preferential flow pathways via secondary/tertiary porosity and/or rapid infiltration of percolating water.

3.3.3 Environmental receptors

The proposed residential development at the application site falls within the Chichester Harbour fluvial catchment. It is understood that without proper mitigation this is likely to have an adverse impact on the site integrity of the Chichester and Langstone Harbours Special Protection Area (SPA), and the wider Solent SAC. The site is in unfavourable condition, in part due to excess nitrogen levels and therefore will require appropriate mitigation for nutrient loading to be compliant with the Habitat Regulations.

4. REVIEW OF DOCUMENTATION

4.1 NUTRIENT BALANCING ASSESSMENT AND NUTRIENT BUDGET CALCULATOR

4.1.1 Validity of assumptions

The assumptions within the nutrient balancing assessment which form the basis of the nutrient budget calculation for the development are as outlined in Table 4:1. Ricardo's comment on the scientific validity of the assumptions and their alignment with Natural England's nutrient neutrality approach are also included in the table.

Table 4:1 Ricardo's comments on the assumptions embedded within the nutrient balancing assessment and nutrient budget calculator

Project Assumptions	Assumption within report	Ricardo's comment
Number of proposed units	210	Given the data available for review, Ricardo finds these assumptions agreeable. The relevant datasets confirm the catchment, soil drainage type, annual average rainfall, and NVZ status of the site.
Average occupancy rate	2.40 (2.23 was calculated using Havant Borough Council occupancy rates calculator, see Appendix H, but the higher value is used as a precaution)	The average occupancy rate chosen is suitably precautionary and has been confirmed with Natural England as a suitable assumption nationally.
Deductible Acceptable Loading	Yes	The previous land-uses have been verified with the documentation included in Appendix B of the nutrient balancing assessment as well as being confirmed with satellite imagery.
The total site area:	14.57 ha	The future land-uses have been checked against the indicative post-development plan and are deemed to be suitably in line with the current plans.
The current land uses are:	12.94 ha lowland grazing; 0.72 ha greenspace; 0.55 ha woodland; 0.36 ha residential urban	
The future land uses will be:	8.1 ha urban residential; 0.065 ha open urban; 5.755 ha greenspace; 0.55 ha woodland; 0.1 ha community food growing.	
The wastewater from the site will be treated at this wastewater treatment works (WwTW)	Thornham	

Project Assumptions	Assumption within report	Ricardo's comment
The consent limit for the WwTW is:	10 mg/l (note the attached Natural England calculator displays 8 mg/l because the deductible loading is applied).	As per the Council's Position Statement, it seems acceptable for deductible acceptable loading to be included within the calculator. All developments within Havant Borough are eligible to include this, provided the water source for the development is within the Solent Catchment.
Surface water catchment	Arun and Western Streams	
Standard annual average rainfall	750.1 – 800 mm	
Soilscape category	Impeded drainage (Slowly permeable seasonally wet slightly acid but base-rich loamy and clayey soils)	
Nitrate Vulnerable Zone	Yes	

It has been confirmed that the development's source of water is within the Solent Catchment, and documentation to evidence this has been provided. It is understood that some areas in the Solent are eligible to include deductible acceptable loading to account for the background concentration of N in surface water and groundwater that would otherwise reach a Habitats site in the absence of abstraction for use by a development. It should therefore be noted that the development is eligible to apply accepted deductible loading.

Table 4:2 outlines the assumptions made with reference to the mitigation proposal, taking land out of production, and Ricardo's comments on the assumption. This is with reference to the principles of nutrient neutrality.

Table 4:2 Ricardo's comments on the assumptions embedded within the mitigation site calculators

Project Assumptions	Ricardo's comment
The location of the mitigation site is appropriate	Mitigation must be within the same Operational Catchment as the proposed development. Although the mitigation site is not in close proximity to the harbours, it is within the Solent Operation Catchment and drains to the affected designated site and therefore is suitable in this instance ³ .
Land use types	Suitably verified by Appendix F within the Nutrient Balancing Assessment.
Total Mitigation (kg / TN / year)	The total mitigation available value is precautionary and below the required mitigation, providing a buffer.

4.1.2 Alignment with Natural England Methodology

The nutrient balancing assessment and subsequent nutrient budget calculator have both been carried out in line with the requirements of Natural England's nutrient neutrality approach and the recent Council's Position Statement. The assumptions used to populate the calculators are valid and sufficient evidence is provided where necessary to validate claims, such as previous land use. We note that Section 4 of the Utility Statement (submitted by the applicant in August 2021) states that Portsmouth Water will supply the application site with potable water and that the application falls within the Walderton Supply Zone which sits entirely within the Solent Catchment⁴ and hence applying deductible acceptable loading is acceptable. The mitigation plan has been devised in extensive consultation with Natural England through the Discretionary Advice Service. This supports the validity of the report.

³ Note: Operational Catchments group Water Framework Directive water bodies together which may not always have the same

⁴ See Natural England's Technical Note TIN211 (<http://publications.naturalengland.org.uk/publication/6522945605468160>)

4.1.3 Summary

The review of the nutrient balancing assessment and nutrient budget calculator for the development at Long Copse Lane indicates that the calculations outlining the nutrient budget of the proposed development are accurate and in line with Natural England's nutrient neutrality approach.

4.2 HYDROGEOLOGICAL APPRAISAL OF LAND AT STANSTED PARK

4.2.1 Summary of document

The hydrogeological conceptual model described in the Hydrogeological Appraisal report indicates the bedrock is comprised of the Lambeth Group and the Tarrant Chalk Member in a single aquifer unit. These formations are in hydraulic contact and are understood to be recharged via direct infiltration from rainfall over the Chalk outcrops in the central and northern areas.

The site is situated on a hydrometric boundary with two separate catchments to the east and west. Therefore, portions of runoff and sub-surface flow will drain to the River Lavant (Hants) catchment and the River Ems catchment (Appendix A of the document).

The fraction of effective rainfall percolating through the unsaturated zone to the aquifer is assumed to be travelling along the Chichester Syncline predominantly via secondary porosity (i.e., fracture flow) towards the springs where it re-joins the surface water bodies upstream of the Chichester and Langstone Harbour.

4.2.2 Scientific validity

Ricardo does not fully agree with the outline Hydrological Conceptual Site Model (HCSM) described in the Hydrogeology Appraisal report. We do note there is a significant lack of site-specific baseline data relating to local stratigraphy, groundwater regime and water levels within the Chalk and Lambeth Group. Therefore, the report includes a number of assumptions in the model and the validity of the proposed mitigation scheme is underpinned by these assumptions:

It is noted that the 50-days travel time associated with the SPZ1 does not consider the potential increase in time required for infiltrating water to percolate through the vadose zone and reach the water table;

In particular, there is no discussion around the potential delays in infiltration associated with the thick unsaturated zone (UZ). The available data indicates that the UZ could be in excess of 20m which may result in a significant increase in the overall lag time, especially during dry periods. Whilst the percolation rate of water through the UZ is affected by multiple intrinsic soil variables and ground conditions, depth to groundwater is possibly the most critical among these factors;

The leaching of residual nitrate present in the upper section of the UZ is not instantaneous and could require months or years to reduce depending on soil conditions, seasonal rainfall and fluctuations of the water table. This could affect the estimated time to see a net change in nutrient contribution in the harbours.

Given the points above we would recommend that further consideration is given by the Applicant around the assumptions included in the conceptual model. In absence of these, it would likely result in the mitigation scheme being unable to demonstrate a net change in nutrient contributions within one year as estimated in the hydrogeological appraisal report. The Applicant should provide more detail and delineation related to the hydrological conceptual model. This should include better time estimate of solute transport through the UZ related to ground conditions and overall nutrient transport process. At this stage we do not believe that the hydrological conceptual model is sufficiently robust (i.e., there are too many uncertainties to provide sufficient confidence in the mitigation scheme).

4.2.3 Alignment with Natural England guidance

Natural England's advice document to achieve nutrient neutrality is referenced in the Council's Position Statement and outlined in the Natural England guidance on implementing the nutrient neutrality approach⁵ (February 2022). A letter from Natural England to the Havant Borough Council also indicates that the principles set out in Section 5

⁵ See Natural England Water Quality and Nutrient Neutrality Advice (16 March 2022) (NE785) available here: <http://publications.naturalengland.org.uk/publication/4792131352002560>

of the Natural England Advice on achieving Nutrient Neutrality for new Development in the Solent Region⁶ (June 2020) are relevant. Both guidance documents indicate that priority locations for mitigation should be in the same river catchment as the wastewater treatment works (WwTW). However, Sections 5.34 and 5.36 of the Natural England for the Solent Region referenced above suggests that for mitigation schemes within the Portsmouth, Langstone and Chichester Harbours there may be opportunities to mitigate other river catchments within these Harbours. Natural England has confirmed that spatial principles in relation to suitable location of mitigation still apply⁷. It should be noted that within Tetra Tech's replacement shadow HRA Appendix 4 Nutrient Balancing document, the proposed mitigation location has been agreed as acceptable to Natural England through their Discretionary Advice Service.

Sections 5.45 and 5.46 of the Natural England guidance for the Solent Region⁸ however also indicate that depth to groundwater should be considered when designing a mitigation scheme, and that offset sites with no surface water course in proximity and where the water level is more than 5m from the ground level may be inappropriate for short-term developments. The Natural England guidance indicates that with the provision of evidence of short time-lag or for areas where the mitigation may result in additional environmental benefits, there might be options for mitigation pending discussion with Natural England.

As the depth to groundwater level at the offset site is expected to be in excess of 20m, the proposed mitigation scheme may not be fully compliant with the Natural England guidance for the Solent Region. The Applicant will need to provide evidence of the expected lag-time or a confirmation that Natural England has agreed to the proposed scheme. The Applicant should also consider options to undertake baseline monitoring at the offset site to characterise the nutrient loading along both surface and sub-surface flow pathways, e.g., via soil sampling and hand augers to delineate a profile of nutrient concentrations at different depths.

4.2.4 Representations

A number of representations have been received by Dr David C. Mason around the planning application for the proposed development and some of the technical aspects related to the nutrient neutrality mitigation scheme. Ricardo has reviewed a number of these representations and some of the key points include:

Soil type, solute transport and lag time: Dr Mason has raised a number of concerns around the potential delays associated with the in-situ ground conditions and the resulting leaching and transport of nutrients. Ricardo has also made similar comments (see 4.2.2) around the hydrogeological CSM. The potential delay associated with the existing ground conditions and the deep UZ could result in the mitigation scheme being unable to show a net change in nutrient contribution within one year as assumed in the hydrogeological appraisal report. Deep groundwater levels and additional time-lag also have implications of non-compliance with the Natural England 2020 guidance for development within the Solent Region unless previously agreed with Natural England. Refer to Section 4.2.3 of this report for further details on this.

Location of mitigation with reference to development and affected harbours: Dr Mason indicates that the offset site is located within River Lavant (Hants) catchment, whilst the main development is in the River Ems catchment which may clash with the latest mitigation principles by Natural England⁹. As most drainage will be occurring through the River Lavant (Hants), a point was raised around the fact that most of the offset would be observed within Langstone Harbour (River Lavant (Hants) as opposed to the Chichester Harbour (Ems), raising concerns on the notion that both harbours can be considered as a hydrological single unit.

Ricardo notes that whilst a part of the site does appear to drain within the Ems catchment (see section 3.3.2), a significant fraction of surface (and groundwater) flow will reach Langstone Harbour via either the River Lavant (Hants) or other pathways from the springs. There is a known net flow of water between Chichester Harbour and Langstone Harbour at high water, with the harbours considered to represent one hydrographic unit, and exchange occurs with the East Solent, with water entering the harbours at flood

⁶ Natural England (2020) Advice on achieving nutrient neutrality for new development in the Solent region. V5 June 2020 Accessed at <https://cdn.havant.gov.uk/public/documents/Solent%20Nutrients%20V5%20June2020.pdf> on the 20/01/2023

⁷ Letter from Natural England to Havant Borough Council (22 September 2022) Access at: [https://cdn.havant.gov.uk/public/documents/Letter%20to%20Havant%20BC%20-%20Use%20of%202020%20guidance%20-%209%20Sept%202022%20\(2\).pdf](https://cdn.havant.gov.uk/public/documents/Letter%20to%20Havant%20BC%20-%20Use%20of%202020%20guidance%20-%209%20Sept%202022%20(2).pdf) on the 07/02/2023

⁸ Ibid.

⁹ Natural England (2022). Nutrient neutrality principles and use of Diffuse Water Pollution Plans (DWPPs) and Nutrient Management Plans (NMPs) - Nutrient Neutrality Principles. February 2022. Accessed at <https://cdn.havant.gov.uk/public/documents/Nutrient%20Neutrality%20Mitigation%20Principles.pdf> on 20/01/2023.

tide. Modelling completed for the East Solent Shoreline Management Plan in 1997 showed that westward ebb flows were stronger than eastward flood flows¹⁰. It is considered that there is sufficient exchange of water between Chichester Harbour, Langstone Harbour and the East Solent such that the proposed mitigation will be applicable to offset the nutrient loading from Thornham WwTW, that discharges to the River Ems. However, the Natural England guidance for developments in the Solent Region document referenced in 4.2.3 indicates that for development within the Portsmouth, Langstone and Chichester harbours there may be options of mitigating neighbouring catchments discharging to one of the harbours, although it acknowledges that priority locations for mitigation are within the same river catchment as the WwTW outfall.

We note that in one letter Dr Mason refers to a Ricardo report for the Warblington Farm scheme¹¹ with comments around the Langstone and Chichester harbours being considered one unit. The available evidence from the Environment Agency Nitrate Vulnerable Zone (NVZ)¹² data demonstrates a significant exchange of water with the Solent. The combined phytoplankton and macroalgae (CPM) modelling then looks at the relative contribution of the nitrogen sources to algal growth. Within Chichester Harbour (total) 83% of nitrogen comes from offshore marine sources. Therefore, suggesting mixing of the system and a wider scale. Further details on this are included in the Ricardo Warblington Farm report¹³.

4.2.5 Summary

Ricardo has identified potential issues within the conceptual site model outlined in the Hydrogeological Appraisal report and these are described in Section 4.2.2. We have observed that the hydrogeological conceptual model does not provide sufficient details regarding the local ground conditions and the transport of solute through the vadose zone. Ricardo has recommended for the Applicant to provide further considerations for the proposed mitigation scheme including additional details around the conceptual model (depth to groundwater, pathways through the UZ etc.) and a quantification of the time-lag estimate to better represent the additional time required for water to percolate through the UZ.

The mitigation scheme however may not be fully compliant with the Natural England guidance for the Solent Region owing to the expected groundwater levels being over 5m below the existing ground level. As noted above, the Applicant should provide evidence for the expected time-lag or for the additional environmental benefits associated with the scheme as per Natural England guidance whilst noting that within Tetra Tech's replacement shadow HRA Appendix 4 Nutrient Balancing document, the proposed mitigation location has been agreed as acceptable with Natural England through their Discretionary Advice Service.

A number of comments have also been made by Dr David Mason. One of the representations is related to the potential time-lag for a net change in nutrient contributions; Ricardo agrees with Dr Mason on this and has raised similar concerns, recommending the Applicant to provide additional details to reduce the uncertainties in the conceptual model and quantify the potential time-lag associated with the solute transport. Dr Mason has also raised concerns over the location of the mitigation site with respect to the proposed development; Ricardo notes that the Natural England guidance for the Solent Region allows the mitigation of neighbouring catchments within the Langstone and Chichester harbours, provided that the given mitigation scheme is examined on a case-by-case basis. As set out in Section 4.2.3, this advice remains relevant in relation to suitable location of mitigation and a proven scientific link between the mitigation site and the designated site is required,

5. CONCLUSIONS

From the information provided, the majority of the documentation has been delivered in line with the requirements outlined in the Council's Position Statement, as well as the national requirements associated with Natural England's guidance on delivering nutrient neutrality.

The review of the Hydrogeological Appraisal report, however, has highlighted uncertainties associated with the hydrogeological conceptual model outlined in the report. The assessment requires additional details around the

¹⁰ HR Wallingford (June 1997) East Solent Shoreline Management Plan. Volume 1 The Open Coast. Accessed at <http://www.environmentdata.org/archive/ealit:1890/OBJ/20002515.pdf>

¹¹ Ricardo (2020). Review of the Warblington Farm Mitigation Option for Nutrient Neutral Development in the Havant Borough. ED 13715100 | Issue Number 3 | Date 15/06/2020

¹² Ibid.

¹³ Ibid.

existing ground conditions such as depth to groundwater and transport of solute through the UZ, and a more detailed assessment of the time-lag between the change in land use and the net change in nutrient contributions at the designated sites.

The depth to groundwater at the offset site is expected being in excess of 20m below ground level and this results in a potential non-compliance with the Natural England Solent Region guidance for short-term developments. The Applicant should either provide evidence of either a short time-lag or of the additional environmental benefits resulting from the scheme, possibly also via additional baseline monitoring at the offset site. Furthermore, the proposed mitigation scheme is largely affecting in the River Lavant (Hants) catchment as opposed to the River Ems catchment where the Thornham WwTW is located. Natural England guidance for the Solent Region allows mitigating neighbouring catchment discharging within the Langstone, Chichester and Portsmouth harbours on a case by case basis. The Applicant needs to confirm whether they have consulted Natural England on the location of the proposed mitigation site.