

Tournerbury Wedding & Events venue Nitrogen budget calculated using new Natural England guidance^{1, 2, 3} and April 2022 calculator

1.0 Introduction

- 1.1. Tournerbury Woods Estate has submitted a retrospective planning application for a wedding and events venue at, Tournerbury Woods Estate, Tournerbury Lane, Hayling Island, Hampshire PO11 9DL. The description of development for which retrospective consent is sought is:

Change of Use of land and woodland (retrospective) as a wedding and events venue, including retention of permanent ancillary buildings and structures, the erection of removable structures (including marquees and temporary facilities), and the use of the land as a campsite in association with events.

- 1.2. A Shadow Appropriate Assessment was submitted in support of the planning application⁴ and this has been subject to consultation with Natural England in their role as Statutory Consultee to Havant Borough Council (HBC). Natural England has raised no objection to the retrospective planning application and the information provided as part of the Shadow Appropriate Assessment in their consultation response (**Appendix 1**).
- 1.3. The Shadow Appropriate Assessment included a nitrogen budget that was updated following a request for further information by HBC's nutrient team. This information was submitted to HBC on 21st February 2022 and was signed off as complete by the Nutrient Team on 11th March 2022.
- 1.4. Since sign-off, Natural England issued new guidance and a revised calculator to establish the nitrogen budget for a development proposal in March 2022. Industry use of the calculator following its publication has highlighted a number of errors that Natural England has since acknowledged and corrected, with a new calculator issued on 22nd April 2022. The guidance supporting this second version of the calculator remains unchanged to that supporting the first.
- 1.5. Although the guidance is provisional in status, HBC, as competent authority under the Conservation of Habitats and Species Regulations 2017 (as amended), has concluded that the new guidance and most recent calculator constitutes the most up-to-date scientific advice on this issue and must therefore be relied upon for purpose of the tests set out under Regulation 63(1). HBC has therefore requested that the nitrogen calculations are reviewed in light of the new guidance and re-provided to the Council along with any supporting evidence.

¹ Natural England & Ricardo Energy, March 2022. Nutrient Budget Calculator Guidance Document Guidance for completion of a nutrient budget using the nutrient budget calculator tool

² Natural England & Ricardo Energy, February 2022. Nutrient Neutrality Generic Methodology

³ Natural England, February 2022. Nutrient neutrality principles and use of Diffuse Water Pollution Plans (DWPPs) and Nutrient Management Plans (NMPs)

⁴ Holbury Consultancy Services Ltd, November 2021. Shadow Appropriate Assessment. Tournerbury Wedding & Events Venue. For Tournerbury Woods Estate.

- 1.6. This paper sets out the new calculations on the basis of the April nitrogen budget calculator as requested, and provides the information that HBC will need to carry out their appropriate assessment of the retrospective application.

2.0 Revised nutrient budget

Introduction

- 2.1. This section sets out the full nitrogen budget for the retrospective planning application for a wedding and events venue at Tournerbury.
- 2.2. It is not possible to make full use Natural England's new nitrogen calculator for the update because the calculator has been developed to address the nitrate loading generated by permanent residential development, rather than a campsite operating for only a few days each year. However, the calculator has been used to generate outputs and data for input into further calculations that better reflect the nitrogen loading generated by the wedding and events venue at Tournerbury Woods Estate.

Stage 1: calculation of nitrogen loading deriving from additional waste water

- 1.7. As part of the wedding package offered by Tournerbury wedding & events venue overnight camping is permitted for guests not wishing to return home on the night of the event. Campers use luxury portable toilets for the night of their stay, which are currently supplied by a company based in Pulborough, and which takes the waste away for treatment outside of the Solent region. However, on the basis that this cannot be guaranteed to endure in perpetuity, the nitrogen calculator has been used to generate the nutrient loading from the treatment of additional waste water locally, at Budds Farm Waste Water Treatment Works (WWTW).
- 2.3. The calculator assumes a default occupancy of 2.4 people per residential unit to undertake this calculation, but does allow adjustment for a different occupancy if this can be justified. Experience of the camping facility at Tournerbury is that the majority of tent pitches tend to be single person occupancy (anecdotally, 60-70%). Generally, these are individuals who don't wish to spend out on a hotel room / B&B for just themselves. Guests who are couples tend to be motivated to much greater degree to have a comfortable room to which to return and prefer to stay over at local hotels instead.
- 2.4. To reflect this, the occupancy setting for the calculator has been set at 2.0 persons per tent. Given experience of camping at Tournerbury, this is an overestimate of tent occupancy, but has been used as a precautionary estimate. Natural England accepted this is an appropriate occupancy figure in the November 2021 Shadow Appropriate Assessment and it is reasonable to assume that this can be relied upon now, for purpose of this new calculation.

- 2.5. On average, 7.8 tents are present on site for 10.5 nights of the year (average data over a 3 year period (2018-2020))(see Appendix 1). The average number of tents has been used to populate the calculator where it requests that the number of dwellings/units must be entered.
- 2.6. The screenshot below shows Stage 1 of the calculation and is taken directly from the new nitrogen calculator.

Stage 1

User Inputs

Date of first occupancy:	01/05/2022
Average occupancy rate:	2.00
Water usage (litres/person/day):	120
Development Proposal (dwellings/units):	8
Include deductible acceptable loading?	Yes
Wastewater treatment works:	Budds Farm WwTW
Wastewater treatment works N permit (mg TN/litre):	7.7

Stage 1 Calculated Loading

Stage 1 Nutrient Loading		
Additional population	16	people
Wastewater by development	1920	litres/day
Annual wastewater TN load	4.86	kg TN/yr

- 2.7. The screenshot highlights that the calculator now requires an assessment of whether it is appropriate to include deductible acceptable loading within the calculation. Where appropriate, this deduction allows for the background level of nitrogen that would be naturally present in groundwater and river water were they in a more natural condition.
- 2.8. The supporting guidance to the calculator does not provide definitive advice as when this deduction is appropriate, noting that '*Natural England will be consulted to determine if deductible acceptable loading is relevant to the nutrient budget methodology for a Habitats site.*'
- 2.9. This calculation has been prepared without opportunity to consult Natural England. Both options are therefore considered, with a view to addressing the worst case as a precautionary approach to the uncertainty generated by being unable to consult.
- 2.10. The screenshot on the following page demonstrates the change in the nitrogen loading of waste water if it is assumed that it is not appropriate to deduct acceptable loading from the treatment of additional waste water at Budds Farm WWTW.

Stage 1

User Inputs

Date of first occupancy:	01/05/2022
Average occupancy rate:	2.00
Water usage (litres/person/day):	120
Development Proposal (dwellings/units):	8
Include deductible acceptable loading?	No
Wastewater treatment works:	Budds Farm WwTW
Wastewater treatment works N permit (mg TN/litre):	9.7

Stage 1 Calculated Loading

Stage 1 Nutrient Loading

Additional population	16	people
Wastewater by development	1920	litres/day
Annual wastewater TN load	6.12	kg TN/yr

- 2.11. If deductible acceptable loading is allowed for, the calculator suggests that the additional loading deriving from camping activities at Tournurbury is 4.86 kg TN/year. If it is not allowed for, this increases to 6.12 kg TN/year. However, in both cases, this is based on 365 days of use, appropriate for a permanent residential use for which the calculator has been developed. To generate a figure appropriate for a campsite used on average for just 10.5 days per year (see Appendix 1), it is necessary to multiply through by 10.5/365. This gives an overall load of **0.13kg TN/year** when deductible acceptable loading is included, and an overall load of **0.18kg TN/year** when it is not.
- 2.12. As the larger of the two figures, and as a precautionary approach, the figure of **0.18kg TN/year** is used for the purpose of calculation of the overall nitrogen budget for camping at the Tournurbury wedding & events venue.

Stages 2 & 3: calculation of existing and proposed nitrogen loading from the ground

- 2.13. To address the overall net nitrogen budget for the scheme, it is important to also consider whether rates of nitrogen leaching from the ground have changed in response to the changed land use. The new calculator refines this calculation to consider the rainfall, permeability, river catchment and also whether or not the site falls within a Nitrate Vulnerable Zone. This is captured in Stage 2 of the calculation (see screenshot on the following page).
- 2.14. Taken together, Stages 2 and 3 of the nitrogen calculator consider the nitrogen load from the land use prior to use as a wedding and events venue, and the load that is now occurring given the operation of the venue. The screen shots on the following page are taken directly from the new calculator to show each of these stages. Each represent the actual land use before and after and are an accurate representation of the nitrate loading for the site. Unlike the Stage 1 calculation therefore, no further adjustment is required.

Stage 2

User Inputs

Catchment: Western Streams

Soil drainage type: Naturally wet

Annual average rainfall (mm): 675.1 - 700

Within Nitrate Vulnerable Zone (NVZ): Yes

Existing land use type(s)	Area (ha)	Annual nitrogen nutrient export (kg TN)
Residential urban land	0.92	11.77
Greenspace	0.51	1.53
Total:	1.43	13.30

Stage 3

User Inputs

New land use type(s)	Area (ha)	Annual nitrogen nutrient export (kg TN)
Residential urban land	1.13	14.45
Greenspace	0.30	0.90
Total:	1.43	15.35

Please enter area in hectares.

Stage 4: calculation of the overall nitrogen budget

- 2.15. Stage 4 draws the calculations together to provide a nitrogen budget for the site. Given that this is reliant on Stage 1, for which an adjustment is relevant to reflect that the retrospective application is non residential, the nitrogen calculator is not able to provide an accurate summary. It is therefore necessary to calculate the final stage by hand, but the calculator provides the equation to complete, as follows:



2.16. Application of this equation to the outputs of Stages 1, 2 and 3 for the retrospective planning application generates the following:

$$(0.18 - 13.30 + 15.35) \times 1.2 = \mathbf{2.68 \text{ kg TN/year.}}$$

2.17. The calculations show that use of land at Tournerbury as a wedding and events venue will generate an additional nitrogen load of **2.68 kg TN per year**. This represents a small increase in the nitrogen inputs into the Solent and will require mitigation to achieve a net neutral budget.

2.18. For purpose of comparison, this conclusion is very similar to the calculation prepared under the previous Natural England guidance, for which the calculated figure was 2.49kg TN/year.

3.0 Analysis

3.1. The nitrogen budget remains extremely precautionary and more so under this guidance than previous, for the following reasons:

- The nitrogen budget is calculated on the basis of a 120 litre daily water usage, up from the assumption of 110 litres per day advised by the previous guidance. This is a significant overestimate for the occasional overnight accommodation offered by the camping grounds. The figure of 120 litres used in the Natural England guidance is a proxy for the wastewater generated by a residential property over a 24 hour period and will be much greater than the wastewater generated by those camping overnight. Its use in the calculation of the nitrogen budget for Tournerbury wedding and events venue is therefore extremely precautionary.
- The calculations assume an occupancy of two people per tent. As set out in paragraph 2.3, experience of overnight camping after a wedding highlights that couples rarely stay over, favouring hotel rooms over tents. Instead, the majority of tent pitches tend to be single person occupancy. The occupancy rate of 2.0 people per tent is therefore known to be over precautionary.
- Those camping out are assumed to have all driven from out of catchment such that they are relevant to the calculated nitrogen budget. However, postcode analysis shows that the large majority of guests live in the catchment of the Solent and so already use facilities elsewhere within catchment. The consequence of this is that their presence is neutral because they have simply shifted their activity from one area of the catchment to another. However, the assumptions used in this calculation do not allow for this, such that the final nitrogen budget will overestimate

the nitrogen generated by those camping overnight.

- The calculation assumes that it is not appropriate to apply deductible acceptable loading to establish the additional loading through treatment of the additional waste water generated by the wedding and events venue. In all previous versions of the calculator it has been appropriate to conclude, but without definitive advice in the current guidance, it has been excluded as a precaution.
- 3.2. On this precautionary basis therefore, the nitrogen budget is likely to be a significant overestimate of the additional nitrogen loading to the system. Nonetheless, for the purpose of the information that HBC require for purpose of carrying out an Appropriate Assessment, it is concluded that the retrospective planning application for a wedding and events venue at Tournurbury will increase nitrogen levels in Solent waters by 2.68kg TN per year. Mitigation is therefore required to secure the scheme as nitrogen neutral.
 - 3.3. Paragraph 2.10 of the Shadow Appropriate Assessment submitted in support of the planning application sets out Havant Borough Council's (HBC) previous position with regard to those developments seeking mitigation so that they can demonstrate nitrogen neutrality and satisfy the tests of the Habitats Regulations. In such cases, HBC's Position Statement advised that developments could contribute towards an off-site nitrate mitigation scheme to secure nitrogen credits approved by Natural England. Warblington Farm has been purchased by HBC to offer development proposals the opportunity to purchase nitrogen credits.
 - 3.4. The new Natural England guidance means that the Council is having to undertake additional work to demonstrate the suitability of Warblington Farm to provide mitigation and the costs of so doing. The Council is investing significant resource to establish these requirements and to swiftly deliver a solution.
 - 3.5. Nothing in the new Natural England guidance suggests that Warblington Farm is no longer suitable as a nitrogen mitigation scheme. Rather the questions that HBC must consider relate to quantum of credits available and the cost implication of any changes. It is therefore reasonable to assume that the retrospective application can still rely on Warblington Farm scheme for purpose of mitigation of the small increase in nitrogen loading in which it will result. Once a review of the Warblington Farm nitrate credit offer has completed, the appropriate number of credits will be purchased from the Council to fully mitigate the retrospective application.
 - 3.6. On the basis that the purchase of the nitrate credits will be secured through a S106 Agreement, the retrospective planning application will not implicate or compromise the conservation objectives of the Natura 2000 sites of the Solent and will not adversely affect their integrity. From this it follows that if the retrospective planning application does not adversely affect the integrity of the Natura 2000 sites as an individual project, then it cannot act in combination with others. Further in combination assessment is not therefore required.

4.0 Conclusion

- 4.1. As Competent Authority, HBC must undertake its own independent appropriate assessment. This paper updates information previously submitted under Regulation 63(2) of the Conservation of Habitats & Species Regulations 2017 (as amended) to ensure that the Council has the information it requires for purposes of the appropriate assessment that must be carried out.
- 4.2. The conclusion set out in Section 7.0 of the Shadow Appropriate Assessment submitted as part of the retrospective planning application for a wedding and events venue at Tournerbury is unaffected by the small change to the nutrient budget set out in this paper.
- 4.3. The retrospective planning application for a wedding and events venue at Tournerbury Woods Estate will not have an adverse effect on the integrity of the Chichester & Langstone Harbours SPA and Ramsar site, or the Solent Maritime SAC, either alone or in combination with other plans and projects.

Appendix 1
Natural England consultation response

Date: 31 January 2022
Our ref: 379808
Your ref: APP/21/01310



Steve Weaver
Havant Borough Council

BY EMAIL ONLY

Customer Services
Hornbeam House
Crewe Business Park
Electra Way
Crewe
Cheshire
CW1 6GJ

T 0300 060 3900

Dear Steve

Planning consultation: Further Info - COU of land & woodland (retrospective) as a wedding & events venue, including retention of permanent ancillary buildings & structures, the erection of removable structures (including marquees & temporary facilities), etc.

Location: Tournerbury Woods, Tournerbury Lane, Hayling Island

Thank you for your consultation on the above dated 11 January 2022 which was received by Natural England on the same date.

Natural England is a non-departmental public body. Our statutory purpose is to ensure that the natural environment is conserved, enhanced, and managed for the benefit of present and future generations, thereby contributing to sustainable development.

NO OBJECTION - SUBJECT TO APPROPRIATE MITIGATION BEING SECURED

Natural England notes this application is a resubmission of a previous application for which we provided a no objection subject to mitigation response

The consultation documents provided by your authority include the HRA & Appropriate Assessment from the previous application for context and an updated shadow HRA (Holbury Consultancy Services Nov 2021)

The following comments are provided to assist your authority in completing the HRA for the proposals and take into account the information provided in the shadow HRA and Visitor Management Strategy documents by Holbury Consultancy Service on behalf of the applicant.

Disturbance

Natural England previously raised concerns about potential increased disturbance from access, noise and light at Tournerbury Foreshore during wedding events during the overwintering period.

The shadow HRA states that 'disturbance events associated with events would be infrequent (a maximum of 3-4 times across the month), of short duration (max 1-2 hours) and extremely localised in nature, confined to the temporary jetty or the adjacent Harbour Lawn'. We accept that access to outdoor areas is less attractive during winter months and that the nature of the terrain at the foreshore is in itself not attractive to wedding guests in formal attire. We welcome the proposed barrier and signage which will further discourage access along with the event rules which requires dogs on short leads at all times and no fireworks allowed. We therefore on balance we agree that provided the competent authority is confident these rules will be implemented by site managers and the measures set out in the visitor management strategy, there is unlikely to be an adverse effect on integrity on the SPA.

It is Natural England's view that use of the jetty and lawn area during the month of October represent a novel source of noise which SPA species are unlikely to be habituated to, we therefore advise the competent authority recognise this in the HRA and take a precautionary approach. The competent authority should be satisfied that use of the jetty will be limited to 3-4 times at highwater during October and use restricted from 1st November to 31st March inclusive.

In addition the proposals have the potential to impact on SPA species through noise disturbance from amplified music in the marquee. The applicant states an attenuated sound system will be continue to be used in the marquee which prevents noise levels exceeding 69db at the foreshore with measurements showing typical sound levels of 34db. We therefore agree that disturbance from noise is unlikely to have an adverse effect on integrity provided the use of this system and monitoring can be secured via appropriately worded condition with any planning consent.

Should the frequency of events increase beyond 4 we recommend that further bespoke wintering bird surveys are conducted to assess disturbance impacts.

Chichester Harbour Site of Special Scientific Interest - The Bury

Natural England previously raised concerns potential disturbance to the Heronry within The Bury which is listed as a feature of the Chichester Harbour SSSI. However evidence suggests that Herons are more likely to be disturbed by vehicles stopping than by vehicles which drive by without stopping. The Visitor Management Strategy sets out that visitors are unlikely to stop on the access track but as a precaution signage will erected at entrances to the access track which advises visitors to not stop due to nesting birds. Based on this evidence and the additional measures we are satisfied there is unlikely to be increased disturbance to the Heronry during the nesting months of January to June. Provided the measures within the Visitor Management Strategy are secured with any permission we are satisfied the proposals will have mitigated any potential disturbance impacts from vehicle access and raise no further concerns.

Nutrient Neutrality

We note that the application does not now include use of Wood Cottage for overnight accommodation and the nitrogen budget for the remaining camping has therefore been recalculated resulting in a small positive nitrogen budget of 0.12 Kg/N/year. As mitigation it is proposed to purchase credits from Havant Borough Council's Warblington Farm strategic offsetting scheme. Natural England is of the view that if these measures, including contributions to them, are implemented, they will be effective and reliable in preventing harmful effects on the Habitats Site(s) for the duration of the proposed development.

This advice is provided on the basis that all mitigation measures will be secured as planning conditions or obligations by your authority to ensure their strict and timely implementation for the full duration of the development. Your authority should be assured that proposed financial contribution rates are proportionate to the identified effects of the proposed development, suitably precautionary, and in line with the Retail Price Index, where relevant. Provided that your authority is assured and satisfied that the budget calculations are suitably precautionary and accurately reflect the proposal, then Natural England raise no concerns with regard to the nutrient budget.

Please note that if your authority is minded to grant planning permission contrary to the advice in this letter, you are required under Section 28I (6) of the Wildlife and Countryside Act 1981 (as amended) to notify Natural England of the permission, the terms on which it is proposed to grant it and how, if at all, your authority has taken account of Natural England's advice. You must also allow a further period of 21 days before the operation can commence.

Further general advice on consideration of protected species and other natural environment issues is provided at Annex A.

Should the developer wish to discuss the detail of measures to mitigate the effects described above with Natural England, we recommend that they seek advice through our [Discretionary Advice Service](#).

For any queries regarding this letter, for new consultations, or to provide further information on this consultation please send your correspondences to consultations@naturalengland.org.uk.

Should the proposal change, please consult us again.

Yours sincerely

Rachael Clemson
Sustainable Development Lead Adviser
Thames Solent Area Team

Appendix 2

Tournerbury wedding & event venue
Overnight accommodation data

Tournerbury Overnight Wedding Bookings Analysis

Year	Single Day Hire		Overnight Hire		Overnight bookings home address in catchment	Overnight bookings home address out of catchment
2020	35		30		21	9
2019	24		21		19	2
2018	24		27		18	9
3 Yr Aver'	28		26		19	7

In catchment home address by month	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
Month / Year	May-20	May-20	May-20	May-20	May-20	Jun-20	Jun-20	Jul-20	Jul-20	Jul-20	Aug-20	Aug-20	Aug-20	Aug-20	Aug-20	Aug-20	Sep-20	Sep-20	Sep-20	Sep-20	Oct-20
Postcode	PO5 3P	SO19 9F	PO6 3F	SO40 8F	PO8 0N	SO19 7B	PO9 3T	PO12 4P	PO5 4B	PO11 0P	PO5 2H	PO2 9H	SO15 5W	SO15 4L	PO8 9A	PO8 8S	PO9 3P	SO45 6F	PO12 1G	PO8 8UY	PO11 0P
Month / Year	Apr-19	May-19	May-19	May-19	Jun-19	Jun-19	Jun-19	Jun-19	Jun-19	Jul-19	Jul-19	Jul-19	Jul-19	Aug-19	Aug-19	Aug-19	Aug-19	Aug-19	Sep-19		
Postcode	SO50 7G	PO2 9Q	PO2 9N	PO9 5F	SO14 6G	SO19 9F	PO6 3H	SO18 1B	SO16 9A	PO7 8B	PO12 4W	PO11 0H	PO3 6J	PO7 6L	PO4 9EJ	SO30 4R	PO15 5Q	PO11 0L	PO9 1A		
Month / Year	May-18	May-18	Jun-18	Jun-18	Jun-18	Jun-18	Jul-18	Jul-18	Jul-18	Jul-18	Aug-18	Aug-18	Aug-18	Aug-18	Sep-18	Sep-18	Sep-18	Oct-18			
Postcode	PO4 9A	PO15 5B	PO2 9J	PO2 0Q	SO19 9E	PO9 6E	PO14 4R	PO4 8R	SO31 7E	PO6 3S	SO21 1U	PO4 9L	PO7 7H	PO10 7G	PO11 0R	PO2 0B	PO4 0N	PO11 9D			

individual camping bookings (pitches) by year												No of nights	Average No of pitches per night
	2020	NA										NA	NA
2019	1	10	7	21	10	1	1	4	18	7		10	8
2018	2	6	2	6	6	23	16	5	9	1	18	11	7.6