

NUTRIENT NEUTRALITY STATEMENT

Introduction

Whilst we have selected option one (avoidance and mitigation strategy) within the European Site Avoidance and Mitigation Checklist to enable this application to be considered, we do believe this application could achieve nutrient neutrality. Should the application be approved we are likely to opt to provide further detail to achieve this rather than utilising a financial mitigation plan.

In the statement below we have outlined the process we believe could be utilised to achieve nutrient neutrality

This statement has been prepared utilising the advice on achieving nutrient neutrality issued by Natural England via Havant Borough Council. The methodology follows the section 4 calculation methods issued in the document 'Advice on achieving nutrient neutrality for new development in the Solent'

Background

The proposed site forms a total area of 2.815 hectares of which 0.857 would become campsite and 1.958 would become SANG (Suitable Available Natural Greenspace)

The area utilised as a campsite would have 28 pitches which; with no alternatives available at the moment; we have treated as properties with an average 2.4 person occupancy.

Stage 1 Total Nitrogen load from Development Waste Water

As per 4.27

Step 1 Additional population

28 residential dwellings = an additional population of 67.2 people (28 x 2.4)

Step 2 Wastewater volume generated

67.2 people x 110 ltr/day thus 7392 litres per day of water

Step 3 Receiving WwTW permit level

Assuming a Waste water treatment works environmental permit of 9.0 mg/l TN

Step 4 TN discharge from WwTW

= 7392 x 8.1 (90% of consent limit) = 59875 mg/TN/day = 0.05987 Kg/TN/yr

Assuming an average site occupancy of 200 days per pitch per year (Where recorded UK touring Caravan and Camping statistical occupancy rates range between 38.3% and 54.6% Per Annum around the UK so we have used the higher rate)

= Waste Water total Nitrogen load of 11.97 Kg/TN/yr

Giving a total waste water load for the proposed site as 11.97 kg/TN/yr

Stage 2 Nitrogen load from current land use

At present the whole site is in use as horse paddocks and has been for over 30 years and thus has an existing nitrogen load 13 Kg/N/yr per hectare (as per section 4.30 and 4.34 of the 'Advice on Achieving Nutrient Neutrality for New Development in the Solent' issued by Natural England)

Step 1 Total area of existing land (horse fields) = 2.815ha

Step 2 Farm type horse paddocks thus taken as 13 as per 4.30 and 4.34 of natural England advice document

Step 3

$$2.815 \times 13 = 36.6$$

Thus the total existing site has a nitrogen load of 36.6 Kg/N/yr

Stage 3 Nitrogen Load from Future Land Use

Although we believe the whole site may be SANG for the purposes of this calculation we have treated the campsite as New Urban Area and the other open space only as SANG

Step 1 New Urban area = 0.857

Step 2 Nitrogen load from future urban area = $0.857 \times 14.3 = 12.25$ Kg/N/yr

Step 3 New SANG /open space = 1.958 Ha

Step 4 Nitrogen load from SANG = $5 \times 1.958 = 9.79$ Kg/N/yr

Step 5 Combined nitrogen load = $12.25 + 9.79 = 22.04$

Thus nitrogen load for future land uses is 22.04 Kg/N/yr

Stage 4 Net change in nitrogen load from development

Step 1 Nitrogen load from Waste Water = 11.97 Kg/N/yr

Step2 Existing land use 36.6 proposed land use 22.04 thus $22.04 - 36.6 = -14.56$

Step 3 $11.97 + -14.56 = -2.59$ (minus)

Step 4 = -3.885 (minus)

Step5 $-2.59 / 5 = -0.518$ (minus)

Step 6 $-2.59 + -0.518 = -3.108$ (minus)

Nitrogen budget is -3.108 (minus)

Therefore, there is no nitrogen surplus and no mitigation will be required

Conclusion

We believe the above calculations show that the site can comfortably support nutrient neutrality however a more detailed proposal will be provided if planning permission is given.

As the development will be in two phases the proposal will be in two parts assuring nitrogen neutrality is achieved at each stage whilst allowing the business to retain some income from partial horse grazing before the second phase is constructed

Other points that will require clarification with Havant Borough council and Natural England are

1. Is the designated water consumption rates for camping lower per person
2. Is the camping area SANG
3. As the site does not drain into the mains sewer can consideration be given to the use of a WwTW outside the area for some of the waste water, thus lowering nitrogen input from the development and allowing retention of some horse grazing in the lower fields.
4. What is the Environmental permit limit at Budds farm WwTW
5. Where does Hayling Island sit in terms of the statistical occupancy rates between 38.3% and 54.6%