

Nitrate Statement

The Burrows
178A The Coal Yard
West Street
Bedhampton
Havant
PO9 1LR

28065

Nutrient Neutrality Calculations for Planning Application at The Burrows, 178A The Coal Yard, West Street Bedhampton, Havant, PO9 1LR

Purpose of this Statement:

Nutrient Neutrality Calculations are set out for the proposed development for Havant Housing Association at 178A West Street Bedhampton, which will provide 20nr 1-bedroom 1-person apartments for people who require low level supported living, in line with the current guidance produced by Natural England as presented in document: *“Advice on Achieving Nutrient Neutrality For New Development in the Solent Region for Planning Authorities, Version 4”*, dated March 2020.

Methodology and Model Assumptions:

Guidance produced by Natural England sets out four stages, within each are a number of steps to determine the net impact on the potential total nitrogen load caused by the development.

Advice on Achieving Nutrient Neutrality For New Development in the Solent Region for Planning Authorities, Version 4 Section A:

Stage 1:

Stage 1 concentrates on the calculation of the potential total nitrogen from the proposed development that would exit the Wastewater Treatment Works (WwTW) after treatment.

Step 1 *Calculate Additional Population:*

The proposed development comprises 20nr 1-bedroom 1-person apartments all of which will be single en-suite bedrooms, therefore a total of total 20 bedrooms. The site is currently undeveloped.

Natural England define the additional population on the basis of 2.4 per property, but given that the development has a defined 20 single bedrooms, the additional total occupancy for the development can be assumed as **20 persons**.

Step 2 *Confirm Water Use:*

To determine the amount of water used, the value of **110 litres per person per day** has been adopted as proposed “reasonable” by Natural England.

Based on an occupancy value of 20 and a water use value of 110 litres per person per day a figure of **2,200 litres per day** can be calculated

Step 3 *Confirmation of Waste Treatment Works (WwTW) and permit Level:*

The waste treatment works to which this development will be feeding will be Budds Farm which is where all of the waste water in Havant is fed to. Budds Farm has a **permitted level of 9.7mg/l**.

Natural England suggest that a worst case scenario is adopted whereby the WwTW operates at 90% of its permitted limited, in this case **8.73mg/l**

Step 4 Calculation of Total Nitrogen (TN) in Kg per annum that would exit the WwTW after treatment derived from the proposed development:

The Total Nitrogen is calculated by multiplying the water use of the site (**2,200 litres per day**) by the worst-case operational scenario of **8.73mg/l** for the WwTW. This equates to a value of **19,206mg/TN/day**. This figure is then converted to kg/TN per day (0.019206) and then to kg/TN per year giving a value of **7.01019Kg/TN/yr**

Table 1 presents in tabulated form the full calculation and model assumptions used

Step	Measurement	Value	Unit	Explanation
Proposal	20nr 1-bed apartments	20	Residential	
Step 1	Additional Population	20	Persons	20nr 1-bed rooms
Step 2	Wastewater generated	2,200	Litres per day	20 x assumed usage of 110 litres per day
Step 3	Receiving WwTW	9.7	mg/l TN	Environment Agency
Step 4	TN discharged after Ww treatment	19,206	mg/TN/day	90% of the consent limit
	Convert to mg/TN to Kg/TN per day	0.019206	Kg/TN/day	Divide by 1,000,000
	Convert to mg/TN to Kg/TN per year	7.01019	Kg/TN/yr	x 365
Wastewater total Nitrogen Load		7.01019	Kg/TN/yr	

Stage 2 Adjust Nitrogen Load to offset existing nitrogen from current land use:

As the former use of the site is classed as 'urban' it is therefore not a change in land use and as such it is not possible to calculate an offset value.

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

The proposed development does not include any Suitable Alternative Natural Greenspace (SANG), Nature Reserves or Bird Refuge Areas and therefore it is not possible to use these land uses as offset for the proposed development.

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

As the development is not a change of land use, from for example 'agriculture' to 'urban' there is no net decrease in the total nitrogen load associated with this development and mitigation measures will be required to offset the nett increase in nitrogen generated.

Conclusion and Mitigation:

The calculations above have demonstrated that the development at 178A The Coal Yard, Bedhampton, Havant of 20nr 1-bedroom apartments for people with low level supported living requirements for Havant Housing Association, would result in 20 additional persons on the site, yielding a wastewater total nitrogen load of 7.01019Kg/TN/yr.

The proposed development, whilst on undeveloped land, is still within the urban fabric and of residential use as is the wider area. Therefore it is not a change of land use that could yield a positive nitrogen offset.

Therefore the applicant should seek mitigation by way of contributions to a mitigation strategy such as the Hampshire and Isle of Wight Wildlife Trust's nitrate credit scheme, agreed with Natural England, whereby developers will be able to pay the Wildlife Trust to secure and manage low-quality arable farmland, stop the application of fertilisers and create vibrant natural habitats such as wildflower meadows, woodlands or wetlands.

The Local Planning Authority, Havant Borough Council should be approached to discuss such mitigation measures, and these agreed via Section 106 contributions.

Additionally, the developer is proposing water saving methods within the development to reduce water usage and lower the waste water resulting from the development. Such water saving methods include, flow restrictors to all taps, showers to all en-suites and no baths and WC cistern minimisers which will be outlined in the design stage SAP assessment.