

Nitrate Statement

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

28065 C

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 5”, dated June 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, Version 5 June 2020:

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

Calculation based on the development producing a population of 20 people and wastewater discharging to Budds Farm

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	20
	Net population increase per housing unit	1.00
	Total net population increase generated by the development	20.00
Step 2	Calculate wastewater volume generated by the development	
	Water use in litres per person per day	110
	Total wastewater volume generated by the development (litres per day)	2,200
Step 3	Confirm receiving WwTW and permit limit	
	Select the wastewater treatment works the development will connect to	Budds Farm
	Wastewater treatment works' permit limit (mg per litre)	9.7
	Wastewater treatment works' discharge level (mg per litre)	8.7
Step 4	Calculate total nitrogen in kg per year discharged by the WwTW	
	Deduct acceptable Nitrogen loading in wastewater (mg per litre)	6.7
	Total Nitrogen discharged by WwTW (mg per day)	14,807.2
	Total Nitrogen discharged by WwTW (kg per day)	0.0148
	Total Nitrogen discharged by WwTW (kg per year)	5.4

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

Historically the land use was a coal yard to the front area which is 400sqm in area with and allotment gardens in the ownership of the surrounding housing to the rear land (2,500sqm), the 400sqm area falls under the urban development category the rear area is deemed as open space/ greenfield category.

Images obtained from Google Street View from the last 10 years confirm the continued use of the front site as a car wash. An aerial photo of the site taken within the last 10 years (Bing Maps) shows the rear of the site divided into the allotment gardens which were within the curtilage of the surrounding houses.



May 2011 (Google Maps)



June 2016 (Google Maps)



June 2019 (Google Maps)



Plan showing the car wash urban development category land in red with the open space/ greenfield category site shown in green

An aerial photo of the site taken within the last 10 years (Bing Maps) shows the rear of the site divided into the allotment gardens which were within the curtilage of the surrounding houses. This rear land is being deemed as open space/ greenfield category.



Aerial Photo of site (Bing Maps)

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)	0.29
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Step 2 Identify current land uses of the development site

Enter area currently used for urban development (hectares)	0.04
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Enter area currently used for open space / greenfield (hectares)	0.25
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Enter area currently used for woodland (hectares)	0.00
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Enter area currently used for community food growing / catchment average (hectares)	0.00
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Enter area currently used for cereals (hectares)	0.00
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Enter area currently used for dairy (hectares)	0.00
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Enter area currently used for general cropping (hectares)	0.00
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Enter area currently used for horticulture (hectares)	0.00
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Enter area currently used for pig farming (hectares)	0.00
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Enter area currently used for lowland grazing (hectares)	0.00
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Enter area currently used for mixed farming (hectares)	0.00
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Enter area currently used for poultry farming (hectares)	0.00
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<i>Check to help ensure that sum total of land uses in Step 2 equals site area in Step 1</i>	0.3
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Step 3 Calculate nitrogen load from current land usage

<i>Total Nitrogen load from current land usage (kg per year)</i>	1.8
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Stage 3 Adjust nitrogen load to account for land uses with the proposed development:

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		
	Enter the total urban area to be created (hectares)	0.29
	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	0.29
Step 2 Calculate total Nitrogen load from proposed land uses		
	Total Nitrogen load from future land uses (kg per year)	4.15

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

Stage 4 Calculate the net change in Nitrogen load from the proposed development		
Step 1 Identify Nitrogen load from wastewater (Stage 1)		
	Nitrogen leaving wastewater treatment works (kg per year)	5.40
Step 2 Calculate net change in Nitrogen load from land use changes		
	Total Nitrogen load from future land use (kg per year)	2.33
Step 3 Calculate total Nitrogen budget for the development site		
	Nitrogen budget for the site (kg per year)	7.73
Step 4 Calculate precautionary buffer if Nitrogen budget exceeds zero		
	Precautionary Nitrogen buffer (kg per year)	1.55

Total Nitrogen budget for the proposed development (kg per year)

Total Nitrogen budget for the proposed development (kg per year)	9.3
Development will generate additional Nitrogen - Mitigation is required Please liaise with your Local Planning Authority for advice on next steps	

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 9.3Kg/TN/yr.

The proposed development, is on land 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 seeks mitigation by way of contributions to Havant Borough Council's Mitigation Scheme which currently has a contribution of £1,235/kg and 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.