



Nutrient Neutrality Statement for 4 Kingsey Avenue, Emsworth, Hampshire, PO10 7HP

Date: 8th January 2025

Project Reference: 601

1 Introduction

Nutrient Neutral Ltd has been commissioned by BOHER Architecture to undertake a nutrient neutrality assessment for a proposed development at 4 Kingsey Avenue, Emsworth, Hampshire, PO10 7HP.

2 Proposed development

The proposed development is the demolition of an existing bungalow and construction of a new dwelling. The site covers approximately 0.07 hectares (ha) in area.

3 Nutrient Export calculations

Nutrient calculations have been undertaken in accordance with the Natural England Neutrality budget calculator for the Solent Marine Sites. Full calculations provided in Appendix 1 and digital copy of the calculator is attached.

3.1 Wastewater export

Wastewater calculations for the proposed dwellings have been undertaken using an average occupancy of 2.4 persons per dwelling and a daily water usage of 120 l/p/day, as prescribed by the Natural England calculator.

The wastewater generated by this site will discharge to Thornham WwTW, which currently has a Total Nitrogen (TN) discharge limit of 10.00 mg/l.

As the site is an existing dwelling, there is a current wastewater discharge. Based on the above values, the pre-development wastewater load is 0.95 kg TN/yr. Following completion of the development, there is no change in the number of dwellings so therefore, the wastewater load is 0.95 kg TN/yr.

There overall additional wastewater loading is therefore **0.00 kg TN/yr**.

3.2 Land use change

The proposed development maintains continuity of residential urban land use. The site comprises of approximately 0.07 ha of residential urban land which generates a pre- and post-development land use export of 0.95 kg TN/yr

Therefore, the land use export associated with the development is **0.00 kg TP/yr**.

4 Summary of nutrient balance

A summary of the nutrient balance for the development is presented in the tables below.

<i>Table 1: Phosphorus budget</i>	
Description	Value (kg TP/yr)
Wastewater loading	0.00
Land use net change	0.00
Nitrogen budget	0.00

In summary, the proposed development generates no additional nitrogen load and therefore, **no mitigation is required**.

5 Conclusion

It is proposed to construct one residential dwelling at Kingsey Avenue, Emsworth. An assessment of the expected nutrient loads has been undertaken using the Natural England nutrient neutrality budget calculator for the Solent Marine Sites. This development will generate no additional nutrient load making **the site nutrient neutral**.

The proposed development will not affect the conservation objectives of the Solent Marine Site.

Appendix 1

Nutrient Budget Calculations

Water infrastructure information	
Description of required information	Data entry column - user inputs required
Date of first occupancy (dd/mm/yyyy):	
Average occupancy rate (people/dwelling or people/unit):	2.40
Water usage (litres/person/day):	120
Development proposal (dwellings/units):	1
Include deductible acceptable loading?	No
Wastewater treatment works:	Thornham WwTW
Current wastewater treatment works N permit (mg TN/litre):	10.00
Not applicable	Not applicable
Not applicable	Not applicable
Final calculation of nutrient load from wastewater	
Description of values generated	Values generated
Wastewater nutrient loading	
Additional population (people):	2.40
Wastewater by development (litres/day):	288.00
Annual wastewater TN load (kg TN/yr):	0.95

Current land use information			
Description of required information		Data entry column - user inputs required	
Operational catchment:		Western Streams	
Soil drainage type:		Naturally wet	
Annual average rainfall (mm):		700.1 - 750	
Within nitrate vulnerable zone (NVZ):		Yes	
Current land uses			
Existing land use type(s) - user inputs required		Area (ha) - user inputs required	Annual nitrogen nutrient export (kg TN/yr)
Residential urban land		0.07	0.95

Future land uses		
New land use type(s) - user inputs required	Area (ha) - user inputs required	Annual nitrogen nutrient export (kg TN/yr)
Residential urban land	0.07	0.95
		0.00
		0.00
		0.00
		0.00
		0.00
		0.00
		0.00
		0.00
		0.00
		0.00
		0.00
		0.00
		0.00
		0.00
		0.00
		0.00
		0.00
		0.00
Totals:	0.07	0.95

Total nutrient budget calculations	
Description of values generated	Values generated
Wastewater TN load (kg TN/year):	0.00
Net land use TN change (kg TN/year):	0.00
TN budget:	0.00
TN budget + 20% buffer:	0.00
Annual nutrient budget	
The total annual nitrogen load to mitigate is (kg TN/yr):	0.00