

Nutrient Neutrality Summary Note 20/01/26

Application Proposal: Replace Class Q Barn with a self-build house, car parking, EV charging, landscaping, removal of c.650 sqm tarmac/fenced tennis court and re-wilding all that Previously Developed Land (PDL), pre-packaged treatment works (PPTW) and drainage field, nutrient neutrality and associated works.

- Not in a conservation area; no protected trees (TPO).
- Trees and Biodiversity: Within catchments for several protected ecological sites (River Test, Solent Maritime SAC, New Forest buffer, Mottisfont Bat SAC) – see Ecological and Nutrient Neutrality Evidence submitted.

Holbury Environmental have been advising about nutrient neutrality at this property from the outset – see their Assessment – dated January 2025 - at [Appendix 1](#) and separately submitted metric. Their report concludes at paragraph 2.6

The calculations show that the scheme will result in a reduction of 2.95kg of total nitrogen per year once built out and occupied. In other words, the scheme is better than nitrogen neutral. No mitigation is required.

And at 3.2

Wiltshire Council can conclude that the proposal will not adversely affect the integrity of the Solent Habitats Sites, either alone or in combination with other plans and projects. In turn, this will allow Wiltshire Council to conclude a positive appropriate assessment under the provisions of the Habitats Regulations.

Richard Greenwood BA (Hons) BPI MRTPI

Director

APPENDIX 1

Nutrient Statement

Project:	Parkwater Farm, Parkwater Lane, Cowesfield, SP5 2QS	Date:	15 th January 2026
Subject:	Nitrogen budget	Author:	Nicola French

1.0 Background

- 1.1. This Technical Note has been prepared to provide information for Wiltshire Council in the determination of a planning application for the demolition of a Class Q approved barn and replacement with a new residential dwelling on land at Parkwater Farm, Parkwater Lane, Cowesfield, Salisbury, Wiltshire, SP5 2QS. This information is provided in compliance with Regulation 63 of the Conservation of Habitats and Species Regulations 2017 (the Habitats Regulations).
- 1.2. In January 2024, Defra issued a policy paper¹ notifying the designation of catchments sensitive to nutrient pollution. This includes the catchment of the Solent, identified as being in unfavourable condition on account of nitrogen pollution². The implication of this is that any local planning authority within the catchment of the Solent cannot grant consent for new residential development unless it can be shown to be net nitrogen neutral. A nitrogen calculation is therefore required to ensure that Wiltshire Council has sufficient information to carry out an appropriate assessment to consider the impacts of the application on the Solent Habitats Sites.
- 1.3. This note takes full account of all information provided by Wiltshire Council on the Council's dedicated nutrient neutrality website³. The note also draws on the calculator and guidance resources on the Government website *Tools and resources for calculating nutrient neutrality*⁴, most recently updated on 27th May 2025.

¹ January 2024, DEFRA. The Designation of Sensitive Catchment Areas Notice 2024

² <https://www.gov.uk/government/publications/notice-of-designation-of-sensitive-catchment-areas-2024/notice-of-designation-of-sensitive-catchment-areas-2024>

³ <https://www.wiltshire.gov.uk/planning-bio-phosphorous-nitrogen-mitigation>

⁴ <https://www.gov.uk/government/collections/tools-and-resources-for-calculating-nutrient-neutrality>

2.0 Nitrogen neutrality calculations

2.1. Box 1, below, sets out the parameters and assumptions used to assess the additional nitrogen loading that will be generated by the new residential unit on land at Parkwater Farm.

Box 1: Assumptions relevant to the calculation of total nitrogen loading for x1 new residential dwelling on land at Parkwater Farm, Parkwater Lane

- **Residential occupancy for the new dwelling:** 2.4 occupants
- **Total wastewater produced by single person:** 120 litres per day
- **Method of waste processing:** the proposed dwelling is in a rural location where connection to an existing mains sewer system is not possible. Instead, the dwelling will be served by a Graf One2Clean system. This system does not rely on dosing with ferric sulphate or another inorganic compound. The system is effective at stripping phosphorous from the treated effluent without dosing and is certified at 7.9mg TN per litre (**see Appendix 1**).
- **Land use:** the red line area of the development scheme comprises a Class Q consented barn together with areas in existing residential use (buildings, gardens and tennis court) (**residential urban**) and part of a grassed paddock (**Lowland**). The barn is classified as 'Mixed' as the best description of its agricultural use.
- **Land use budget:** The total plot area is 0.43ha, split according to the following existing land uses:
 - Residential urban: 0.23ha
 - Lowland: 0.12ha
 - Mixed: 0.08ha
- **Proposed development:** The proposed scheme falls into two parts: the area of the new residential dwelling classed as **residential urban land** (0.19ha) and an area designated for habitat creation, outside of the residential curtilage, and best classified as **greenspace** (0.24ha). The total area of the residential urban land and the proposed greenspace is 0.43ha

2.2. The most recent Natural England Nitrogen Calculator has been used to calculate the nitrogen load generated by the treated foul from the new residential unit.

Description of required information	Data entry column - user inputs required	Additional data entry column - user inputs may be required
Date of first occupancy (dd/mm/yyyy):	01/06/2027	
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?	Yes	
Wastewater treatment works:	Package Treatment Plant user defined	
Current wastewater treatment works N permit (mg TN/litre):	Enter value in cell C11	7.9
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):	0.62	

- 2.3. The calculations show that the treatment of foul from the new residential unit will generate **0.62kg TN** per year once in use. Note that the 20% buffer has not been applied at this stage. Rather it is applied to the final calculation once the overall budget for the site is established.
- 2.4. To address the overall net nitrogen budget for the scheme, it is important to also consider how rates of nitrogen leaching from the ground will change in response to a changed land use. Stages 2 & 3 of the calculation assess the Total nitrogen loading to the environment that is currently taking place and compares this to the loading that will occur once the barn has been converted. Both stages are set out on the following page, using the land use categories described in Box 1.

Current land use information		
Description of required information	Data entry column - user inputs required	
Operational catchment:	Lower Test and Southampton Streams	
Soil drainage type:	Freely draining	
Annual average rainfall (mm):	850.1 - 900	
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)
Lowland	0.12	1.60
Residential urban land	0.23	3.75
Mixed	0.08	2.04
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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	0.19	3.10
Greenspace	0.24	0.72
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Totals:	0.43	3.82

- 2.5. Finally, the calculator generates a net nitrogen loading for the scheme to take account of both loading from treated foul and the change of use of the land for development. This is set out in Stage 4, below.

Total nutrient budget calculations	
Description of values generated	Values generated
Wastewater TN load (kg TN/year):	0.62
Net land use TN change (kg TN/year):	-3.57
TN budget:	-2.95
TN budget + 20% buffer:	-2.95
Annual nutrient budget	
The total annual nitrogen load to mitigate is (kg TN/yr):	0.00

- 2.6. The calculations show that the scheme will result in a reduction of 2.95kg of total nitrogen per year once built out and occupied. In other words, the scheme is better than nitrogen neutral. No mitigation is required.

3.0 Conclusion & analysis

- 3.1. A nutrient budget calculated in line with the current Natural England guidance and calculator for a new residential dwelling on land at Parkwater Farm, Cowesfield shows that the proposed scheme will reduce nitrogen loading to the Solent catchment. No mitigation is required to ensure that the scheme delivers as nutrient neutral.
- 3.2. Wiltshire Council can conclude that the proposal will not adversely affect the integrity of the Solent Habitats Sites, either alone or in combination with other plans and projects. In turn, this will allow Wiltshire Council to conclude a positive appropriate assessment under the provisions of the Habitats Regulations.

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