

Nutrient Statement

Project:	The Lodge, Hensford Marsh, BA12 9PA	Date:	14 th July 2026
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Subject:	Nutrient budget	Author:	Nicola French
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1.0 Background

- 1.1. This Nutrient Statement has been prepared to provide information to Wiltshire Council (WC) in support of a retrospective planning application for the conversion of a restaurant with a single upstairs flat into a residential dwelling at The Lodge, Hensford Marsh, Warminster, BA12 9PA.
- 1.2. The information within this Nutrient Statement is provided under Regulation 63 of the Conservation of Habitats and Species Regulations 2017 (the Habitats Regulations).
- 1.3. In January 2024, Defra issued a policy paper¹ notifying the designation of sensitive river catchments sensitive to nutrient pollution. This includes the River Avon Special Area of Conservation (SAC), identified as being in unfavourable condition on account of phosphorous pollution². The implication of this is that any local planning authority within the catchment of the Hampshire Avon cannot grant consent for new residential development unless it can be shown to be net phosphorous neutral. A phosphorous calculation is therefore required to ensure that WC has sufficient information to carry out an appropriate assessment to consider impacts of the application on the River Avon SAC, required to approve the planning application.
- 1.4. This note takes full account of all information provided by WC on the Council's dedicated nutrient neutrality website³ and 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 Nutrient neutrality calculations

- 2.1. **Box 1** below sets out the parameters and assumptions used to assess the additional phosphorous loading that the single residential dwelling generates.

Box 1: Assumptions relevant to the assessment of additional nutrient loading for x1 residential dwelling at The Lodge, Hensford Marsh, Warminster, BA12 9PA

- **Number of new dwellings:** the scheme is for the conversion of a restaurant and one residential flat into a single dwelling house. The scheme does not result in the net increase in the number of residential units present on site. However, the nutrient loading of the two units (old vs new) will not be equivalent and a nutrient budget has therefore been prepared.
- **Occupancy for the dwelling:** 2.4
- **Total wastewater produced by single person:** The existing flat within the restaurant produces 150 litres per day. This is advised as appropriate by Natural England because an existing property is very unlikely to have the water saving features required of new build by Building Regulations. The new residential dwelling will produce 120 litres per day (110 litres with a 10 litre buffer) as it is a new build with a Building Regulations requirement for water saving features.
- **Method of waste processing:** foul waste will be processed at Warminster Waste Water Treatment Works (WWTW)
- **Total plot area:** The total area of the plot is 0.3975.
- **Current land use:** The nutrient calculator does not include a category for restaurants but government guidance for use of the calculator states '*If there is a land use within the development area that is not in the list, select the most similar land use type.*' The restaurant is akin to a residential land use in many ways, with gardens and parking. For this reason, it best described as **residential urban land**.
- **Proposed development:** There is no change in land use.

- 2.2. The most recent Natural England Phosphorous Calculator for the River Avon has been used to calculate the nutrient load generated by the treated foul from the x1 new residential dwelling.

Water infrastructure information	
Description of required information	Data entry column - user inputs required
Date of first occupancy (dd/mm/yyyy):	01/07/2027
Average occupancy rate (people/dwelling or people/unit):	2.40
Water usage (litres/person/day):	120
Development proposal (dwellings/units):	1
Wastewater treatment works:	Warminster WwTW
Current wastewater treatment works P permit (mg TP/litre):	0.50
Not applicable	Not applicable
Post 2030 WwTW P permit (mg TP/litre):	0.25
Final calculation of nutrient load from wastewater	
Description of values generated	Values generated
Post-2030 wastewater nutrient Loading	
Additional population (people):	2.40
Wastewater by development (litres/day):	288.00
Annual wastewater TP load (kg TP/yr):	0.02
Pre-2030 wastewater nutrient loading	
Annual wastewater TP load (kg TP/yr):	0.05

- 2.3. The calculations show that the treatment of foul from the x1 new residential dwelling will generate 0.05kg of total phosphorus per year pre-2030, dropping to 0.02kg of total phosphorus per year post-2030 once built and occupied. 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. The pre and post loadings derive from the requirements of the Levelling up and Regeneration Act 2023, which imposes a new duty on Wessex Water to ensure wastewater treatment works serving populations of 2,000 or more meet specified nutrient removal standards. Local planning authorities considering planning proposals for development are required to consider that the nutrient pollution standard will be met by the upgrade date for the purposes of their Habitats Regulations Assessments⁵. It is therefore reasonable to assume that the loading will reduce on upgrade of Warminster WWTW in 2030.
- 2.5. To address the overall net nutrient budget for the scheme, it is important to also consider how rates of phosphorous leaching from the ground will change in response to a changed land use. Stages 2 & 3 of the calculation assess the Total phosphorous loading to the water environment that is currently taking place and compares this to the loading that is occurring with the residential dwelling. For this scheme, stages 2 & 3 cancel out because there is no change in land use. The total nutrient loading therefore derives from just the loading that will arise from treatment of foul from the single residential dwelling. For completeness, both stages are set out below, using the categorisations and land area set out in Box 1.

⁵ <https://www.gov.uk/guidance/nutrient-neutrality-update>

Current land use information		
Description of required information	Data entry column - user inputs required	
Operational catchment:	Avon Hampshire	
Soil drainage type:	Naturally wet	
Annual average rainfall (mm):	950.1 - 1,000	
Within nitrate vulnerable zone (NVZ):	Yes	
Current land uses		
Existing land use type(s) - user inputs required	Area (ha) - user inputs required	Annual phosphorus export (kg TP/yr)
Residential urban land	0.40	0.78
		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:	0.40	0.78

Future land uses		
New land use type(s) - user inputs required	Area (ha) - user inputs required	Annual phosphorus export (kg TP/yr)
Residential urban land	0.40	0.78
		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:	0.40	0.78

- 2.6. Finally, the calculator generates a net phosphorous loading for the scheme to take account of both loading from treated foul and the change of use of the land for development, recorded below.

Total nutrient budget calculations	
Description of values generated	Values generated
Wastewater TP load (kg TP/year):	0.02
Net land use TP change (kg TP/year):	0.00
TP budget:	0.02
TP budget + 20% buffer:	0.02
Annual nutrient budget	
The total annual phosphorus load to mitigate is (kg TP/yr):	0.02
Pre-2030 nutrient budget	
The total annual phosphorus load to mitigate is (kg TP/yr):	0.06

- 2.7. The calculations show that conversion of the restaurant and existing flat into a single dwelling at The Lodge will generate **0.06kg** of total phosphorous per year pre-2030 once built and occupied, dropping to **0.02kg** of total phosphorus per year post-2030 once built and occupied.

- 2.8. To ensure net nutrient neutrality, **mitigation is required** to address the additional phosphorous load that the single dwelling generates.

3.0 Mitigation

- 3.1. Natural England advises that it is appropriate to calculate nutrient loading from existing properties on the basis of a daily water usage per person of 150 litres. This is because an existing property is very unlikely to have the water saving features required of new build by Building Regulations. It is therefore appropriate to calculate the loading of the existing residential flat using a daily water usage of 150 litres per person.
- 3.2. In contrast, the new dwelling will have water saving features and the nutrient loading calculated above is based on 120 litres per person per day. If a net reduction in nutrient loading can be shown, and assuming that this can be properly secured, this will allow WC to conclude that the planning application will not adversely affect the integrity of the River Avon SAC alone or in combination with other projects.
- 3.3. The River Avon nutrient calculator can be used to calculate an estimate of the nutrient loading of the existing flat. The nutrient calculator calculates that the

existing flat releases **0.06kg** of TP/year pre-2030, dropping to **0.03kg** of TP/year post-2030 once built and occupied (see Stage 1 below).

Water infrastructure information	
Description of required information	Data entry column - user inputs required
Date of first occupancy (dd/mm/yyyy):	01/07/2027
Average occupancy rate (people/dwelling or people/unit):	2.40
Water usage (litres/person/day):	150
Development proposal (dwellings/units):	1
Wastewater treatment works:	Warminster WwTW
Current wastewater treatment works P permit (mg TP/litre):	0.50
Not applicable	Not applicable
Post 2030 WwTW P permit (mg TP/litre):	0.25
Final calculation of nutrient load from wastewater	
Description of values generated	Values generated
Post-2030 wastewater nutrient Loading	
Additional population (people):	2.40
Wastewater by development (litres/day):	360.00
Annual wastewater TP load (kg TP/yr):	0.03
Pre-2030 wastewater nutrient loading	
Annual wastewater TP load (kg TP/yr):	0.06

3.4. As for the new dwelling, Stages 2 & 3 of the calculator are not relevant to this calculation as the conversion of the restaurant with the existing flat into a single dwelling does not involve a change of land use. Furthermore, advice received from Natural England is that it is not appropriate to apply the 20% buffer to this calculation, because it works in the other direction to the assessment of the loading from the proposed solution. This would mean that inclusion of the 20% buffer would result in a less precautionary calculation. Stage 4 is therefore excluded from this assessment, to leave the final loading of existing flat to the water environment as **0.06kg** of TP/year pre-2030 dropping to **0.03kg** of TP/year post-2030 once built and occupied.

3.5. Table 1 below compares the nutrient loading deriving from the new dwelling to the existing flat.

Scenario	Existing dwelling		New dwelling		Difference in nutrient loading	
	Pre-2030	Post-2030	Pre-2030	Post-2030	Pre-2030	Post-2030
Total phosphorous (Kg TP/year)	0.06	0.03	0.06	0.02	Nutrient neutral	Saving of 0.01kg TP/year

3.6. Table 1 clearly shows that the treatment of foul from the new residential dwelling at The Lodge, Hensford Marsh will make no difference to the net nutrient load pre-2030 and will result in a smaller nutrient load to the water environment than is

currently occurring from the restaurant and existing flat post-2030. This is because there will be a smaller volume of wastewater produced per person due to the introduction of water saving features. The overall result of converting to a new dwelling will be **no change** in nutrient loading to the water environment pre-2030 and **a net overall reduction** in nutrient loading to the water environment post-2030. In other words, the conversion of the restaurant with an existing flat into a residential dwelling will result in a nutrient neutral solution pre-2030 and a better than nutrient neutral solution post-2030.

4.0 Conclusion & analysis

- 4.1. A nutrient budget calculated in line with the current Natural England guidance and calculator for a new residential dwelling at The Lodge, Hensford Marsh shows that the proposed scheme is better than nutrient neutral.
- 4.2. WC can conclude that the proposed residential property will not adversely affect the integrity of the River Avon SAC, either alone or in combination with other plans and projects.

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