

Technical Note

Project:	Southfield, Parsons Lane, Crockerton, BA12 8AB	Date:	31 st July 2026
Subject:	River Avon SAC: nutrient neutrality	Reference:	N310726NF

Introduction

- 1.1. This note has been prepared following the refusal of an application for Permission in Principle for the erection of up to two dwellings and associated works on land at Parsons, Crockerton, Warminster, BA12 8AB (PL/2025/09180).
- 1.2. A consultation response from Wiltshire Council's ecology team objects on the basis that insufficient information was submitted to enable Appropriate Assessment to be carried out by the Council in respect of the River Avon (Hampshire Catchment) SAC. The objection specifies that

The calculations could demonstrate nutrient neutrality but some changes to the calculations are required and clarification on a number of issues as indicated below are necessary before the Appropriate Assessment can be completed:

1. The 'Nutrients from current land use' tab and 'Nutrients from future land use' tab of the existing septic tank nutrient calculation and the replacement PTP nutrient calculation has not been filled out. This information is required to ensure the nutrient calculation is accurate.
2. Water Usage: The provided nutrient budget for the replacement PTP uses a water usage rate of 150 litres per person per day. As stated on our website, 'the applicant can agree to a condition for water efficiency restricting water use to a maximum of 85 litres per person per day, or an alternative figure between 85 litres per person per day and 110 litres per person per day. Natural England require the nutrient calculator to include an additional 10 litres per person per day in the calculator. However, please note, this option can only be used for developments that drain to a main sewer network where the water company has a Total Phosphorus limit on the permit.' Therefore, this input is only permissible for developments connecting to a mains wastewater treatment works with a phosphorus permit limit. It cannot be applied to developments proposing to use a package treatment plant (PTP). If the development will be served by a PTP, the nutrient calculation must be revised accordingly to align with Wiltshire Council's published guidance.
3. The proposed location of the new PTP and replacement PTP has not been submitted in support of the application.

The calculations must be amended to address these issues, or suitable justification provided, and resubmitted to the Council for approval. The calculations must be approved by the council to enable the AA to be undertaken, which must be completed, and the conclusion agreed with Natural England prior to the application being determined.

- 1.3. Furthermore, the Case Officers report identifies that

Although the applicant proposes upgrading the septic tank to a package treatment plant, no satisfactory nutrient budget, operational specification, or long-term maintenance details have been provided. Without this information, an Appropriate

Assessment cannot determine whether adverse effects on the River Avon SAC can be ruled out. Therefore the LPA is unable to approve the development of the site due to its location within the Hampshire River Avon SAC and the potential for adverse effects on the habitats site.

1.4. This paper addresses the issues raised on a point-by-point basis.

Points raised: ecology objection

1.5. The reviewing ecologist is clear that the calculations for the scheme could show nutrient neutrality: this is an important point of principle. The scheme is in fact better than nutrient neutral – it reduces phosphorous to the environment as shown in the following table:

Scenario	Existing dwelling with existing septic tank	Proposed dwellings + existing dwelling, with new PTP	Difference in nutrient loading
Total phosphorous	1.53kg of TP/year	1.36kg of TP/year	Saving of 0.17 kg TP per year

1.6. There are therefore no adverse impacts to act in combination with other plans and projects and the scheme delivers a solution that is better than nutrient neutral.

1.7. The clarifications sought to permit this demonstration are minor and easily addressed as follows:

- Point 1:** The 'Nutrients from current land use' tab and 'Nutrients from future land use' tab of the existing septic tank nutrient calculation and the replacement PTP nutrient calculation has not been filled out. This information is required to ensure the nutrient calculation is accurate.
 The tabs were not filled out because there will be no change in land use associated with the upgrade of the existing septic tank such that these two tabs cancel out. However, for completeness, the enclosed calculator has been updated to include.
 The inclusion of the data makes no difference to the final calculation.
- Point 2:** The provided nutrient budget for the replacement PTP uses a water usage rate of 150 litres per person per day. As stated on our website, 'the applicant can agree to a condition for water efficiency restricting water use to a maximum of 85 litres per person per day, or an alternative figure between 85 litres per person per day and 110 litres per person per day. Natural England require the nutrient calculator to include an additional 10 litres per person per day in the calculator. However, please note, this option can only be used for developments that drain to a main sewer network

where the water company has a Total Phosphorus limit on the permit.’ Therefore, this input is only permissible for developments connecting to a mains wastewater treatment works with a phosphorus permit limit. It cannot be applied to developments proposing to use a package treatment plant (PTP). If the development will be served by a PTP, the nutrient calculation must be revised accordingly to align with Wiltshire Council’s published guidance.

This comment misunderstands the use of the 150 litres in the calculations. Box 1 of the submitted Nutrient Statement is clear that the calculations of total phosphorus loading relevant to the new dwelling is based on a water usage of 120 litres per person per day. This is consistent with Wiltshire Council’s guidance set out above. The 150 litres is relevant to the calculation of the existing loading from the existing septic tank. This will serve an existing residential dwelling that is very unlikely to have the water saving features required of new build by Building Regulations and is an approach that is accepted by Natural England and Wiltshire Council on many schemes previously e.g. PL/2024/03106.

No change to the calculation is required.

- **Point 3:** The proposed location of the new PTP and replacement PTP has not been submitted in support of the application.

A plan is now submitted.

Points raised: Case officers report

1.8. In addition to the ecology objection, the case officer records that no satisfactory nutrient budget, operational specification, or long-term maintenance details have been provided for the upgrade of the septic tank to a Package Treatment Plant. In response:

- The issues around the nutrient budget are addressed above with respect to the comments provided by the Council’s ecology team.
- The specification of the Package Treatment Plant is clearly set out in the Nutrient Statement, with the calculations based on upgrade to a Graf One2Clean Package Treatment Plant. Furthermore, the PIA certification is included with the Nutrient Statement at Appendix 1 to evidence the figures used within the calculations.
- A Maintenance Plan to address the installation and long-term maintenance of the PTP will be secured by the unilateral undertaking proposed. The UU will secure installation of a certified PTP at ≤ 1.6 mg/l TP serving Southfield and each new dwelling. The PTP will be installed and verified before first occupation and will be serviced and desludged annually under a maintenance contract in perpetuity. All records of service will be submitted to Wiltshire Council.

- 1.9. Additionally, percolation testing, groundwater depth, drainage field design, PE sizing and EA general binding rules compliance will be addressed at the Technical Details Consent stage.

Conclusion

- 4.1. A nutrient budget calculated in line with the current Natural England guidance and calculator for x2 new residential dwellings at Southfield, Parsons Lane, Crockerton, BA12 8AR shows that the proposed scheme will generate a surplus of 1.11 kg TP. To mitigate this additional loading, an existing septic tank that serves the adjacent property within the same family ownership and which is currently discharging 1.53kg of TP per year to the water environment, will be upgraded to a new PTP. The increased efficiency of nutrient stripping of the new PTPs in treating the foul from all properties will mean that the overall nutrient loading to the environment will reduce, such that the scheme inclusive of mitigation, will achieve a better than nutrient neutral net budget.
- 4.2. The new PTP arrangements will be installed and functional for all properties prior to the first occupation of the new dwelling and will be secured through a UU.
- 4.3. The UU will be used to secure the PTP arrangements to serve the three dwellings, the requirement to secure a full and functioning system for first occupation of the new dwelling, and to ensure that the PTP is regularly maintained according to the manufacturers recommendation thereafter.
- 4.4. This will ensure that the proposal will not adversely affect the integrity of the River Avon SAC, either alone or in combination with other plans and projects, allowing Inspector to conclude a positive appropriate assessment under the provisions of the Habitats Regulations.

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