South Downs National Park Authority Local Plan - Nutrient Budget (February 2026)

Introduction

1. This report discusses the South Downs National Park Authority's (SDNPA) Local Plan nutrient budget which can be found in Appendix 1. The report then goes onto discuss the wider nutrient market and whether there is sufficient supply in each of the nutrient catchments to meet the Local Plan need.

Background

2. High levels of nitrogen and phosphorous are liable to cause dense mats of macroalgae and phytoplankton to grow (called eutrophication), which can have an adverse impact upon the integrity of the protected Solent Special Protection Areas (as shown in Figure 1), as well as harming rare and protected species, such as waders.

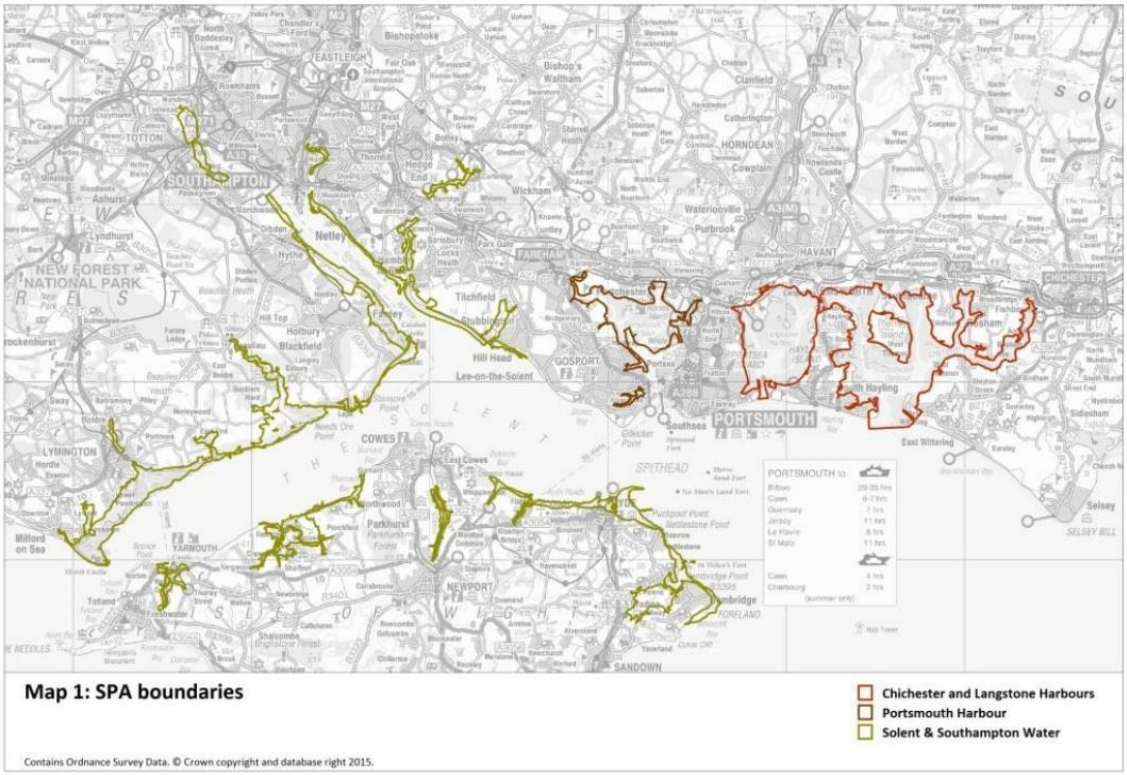

Figure 1 - The Solent SPAs (Source: SRMP Strategy)

3. In line with the Habitat Regulations and recent CJEU case law which require plans and projects to prevent further deterioration of the water environment, since January 2019 Natural England has required all developments in the Solent area to be 'nutrient neutral' for Total Nitrogen (TN). This includes all residential proposals, tourist accommodation and visitor attractions which

would draw additional people into the catchment. Certain commercial and industrial activities which use large volumes of water may also be required to be nutrient neutral.

4. In March 2022 Natural England issued formal nutrient neutrality guidance for the River Itchen catchment, updated to include mandatory Total Phosphorus (TP) mitigation along with the already existing requirement to mitigate TN in the catchment. The River Itchen is designated as a Special Area of Conservation (SAC) and it was found that the river was now also experiencing excessive nutrient inputs from phosphorus in particular.

5. To achieve nutrient neutrality, many developments will be required to secure appropriate mitigation. To satisfy the provisions of the Habitat Regulations, any required nutrient mitigation must have a high degree of certainty both in terms of its effectiveness and deliverability, and be secured prior to any impacts being created (prior to occupation).

Methodology

6. The catchment data used in this report is based on the latest iteration of the Solent Nutrient Supply and Demand paper from December 2025[1]. The report then compares the SDNPA nutrient need against the catchment demand and supply position to determine whether there is sufficient supply to meet the SDNPA Local Plan anticipated demand.

7. This nutrient demand calculation looks at allocations proposed in the new Local Plan, estimated windfall and also any neighbourhood plan allocations that have yet to come forward. This gives an overall picture of the potential nutrient demand related to housing development for the relevant catchments. These calculations use the same methodology as that used in the Solent Nutrient Supply and Demand report. This involves using the Natural England Nutrient budget calculator[2] to calculate both the wastewater and land use change budgets for each allocation. These two elements then form the full nutrient budget for the allocation. The housing figures from the allocations are used to calculate a strategic nutrient demand figure which is based on the receiving wastewater treatment works (WwTW) permit level for developments. The assessment of the wastewater nutrient demand includes the proposed technically achievable limits (TAL) due to take effect in 2030, for WwTWs that meet the threshold for being upgraded but do not currently meet the standard.

[1] (Public Pack)Agenda Document for Partnership for South Hampshire (PfSH) Joint Committee, 09/12/2025 18:00

[2] Natural England nutrient calculator and guidance - Partnership for South Hampshire

If an allocation is not connected to a main sewer, then it is assumed that the allocation will drain to a Package Treatment Plant (PtP). The mg/l permit values used for the PtP are based on the Natural England default values assumed in the calculator. For the land use change element of the nutrient budget, the red line boundary for the allocations has been used, along with the Crop Map of England (CROME) 2023 data and satellite images.

8. The windfall nutrient load calculations, assume there is zero net land use change and therefore, consist of a wastewater nutrient load only. This is because there are no specific site boundaries available when calculating windfall as these developments are not yet know to the Local Planning Authority (LPA). For the wastewater element, a precautionary approach has been taken, and it is assumed that all windfall in the plan will drain to a PtP using the Natural England default values.

9. There are three individual nutrient catchments within the Solent Nutrient Neutrality catchment that impact the SDNPA. These are, Western Streams, East Hampshire Rivers, and the River Itchen. The Western Streams and East Hampshire Rivers catchments require TN mitigation only, whereas the River Itchen requires both TN and TP mitigation. For the TN element of the River Itchen, mitigation can also be sort in the River Test due to the spatial principles that apply. This means that following catchment analysis will be presented in this report:

    a. Western Streams (TN)
    b. East Hampshire Rivers (TN)
    c. Test and Itchen (TN)
    d. Itchen (TP)

10. The report analyses the 5-year projected supply and demand position for each catchment and compares the Local Plan need (plus neighbourhood plan housing allocations) with the expected credit availability figure. It then goes onto set out the mitigation need for the part of the plan that spans beyond 5 years. There is a separate section of the report that discusses the supply position of the catchments beyond 5 years.

11. The Plan's windfall calculations are presented at the end of the report using the same catchment approach.

12. This nutrient budget has been put together in order to demonstrate that sufficient mitigation is likely to be available to satisfy the quantum of

development within the emerging SDNPA Local Plan. Appendix 1 of this report shows the expected nutrient demand over the plan period.

Local Plan Allocations and Neighbourhood Development Plans

Western Streams

13. The only allocation that is located in the Western Streams catchment is LNDP21 'Church Farm Barns' (South Downs Land Availability Assessment reference: CH148) and this is part of the Lavant Neighbourhood Development Plan (NDP). The nutrient budget for the allocation is zero due to the land use change from its existing use to its proposed future use being significant enough that it negates the additional wastewater load that will occur from the new development. The level of nutrient supply in the catchment is, therefore, not a concern.

East Hampshire Rivers

14. There are two proposed Local Plan allocations and one NDP within the East Hampshire catchment. Only the allocation SDA45 'Land at Park Lane, Droxford' is expected to come forward in full within the next 5 years. The allocation SDA79 is expected to come forward in phases with just under half the development occurring within 5 years.

(0 – 5 Years)

15. As shown in Appendix 1, the first phase of allocation SDA79 is estimated to generate a nutrient need of approximately 18.9 Kg/TN/Yr. The allocation is located within the River Hamble and drains to Bishop Waltham WwTW. Reference to the Natural England "Advice on Achieving Nutrient Neutrality for New Development in The Solent Region"[3] document confirms that 'development that drains to the River Hamble, e.g. Bishops Waltham WwTW, mitigation land is limited to within the River Hamble catchment'. There is at least one mitigation scheme located in the River Hamble catchment that could provide the allocation SDA79 with suitable mitigation. The scheme has a significant amount of credits available. The SDNPA would need to enter into a legal agreement with the scheme to access the credits.

16. For the allocation SDA45 'Land at Park Lane, Droxford' this is not restricted by the same spatial restrictions as the allocation SDA79 described above. It can therefore, access mitigation from across the wider East Hampshire catchment.

[3] Natural-England's-latest-guidance-on-achieving-nutrient-neutrality-for-new-housing-development-June-2020.pdf

The allocation has a nutrient need of approximately 70 Kg/TN/Yr. The SDNPA has legal agreements in place with two existing mitigation schemes that this development can obtain suitable mitigation from in the catchment. Both schemes still have a significant amount of supply available on the market.

(5+ Years)

17. The East Meon NDP allocation 'Garages Site off Hill View' (South Downs Land Availability Assessment reference EA131) is also not restricted by the same spatial restrictions as the allocation SDA79 described above. It can therefore, access mitigation from across the wider East Hampshire catchment and use the same mitigation schemes as the allocation SDA45. Appendix 1 estimates for the period beyond 5 years an additional 23.4 Kg/TN/Yr will be required to satisfy the East Hampshire catchment demand within the National Park. This figure includes the nutrient need from the second phase of the allocation SDA79.

Test and Itchen (Total Nitrogen)

18. Figure 2 is an extract from the recent Solent Nutrient S&D report[1] considering the supply and demand for nutrient credits within the Test and Itchen catchment. The figure shows the expected level of TN mitigation expected to be available in the Test and Itchen Catchment over the next 5 years.

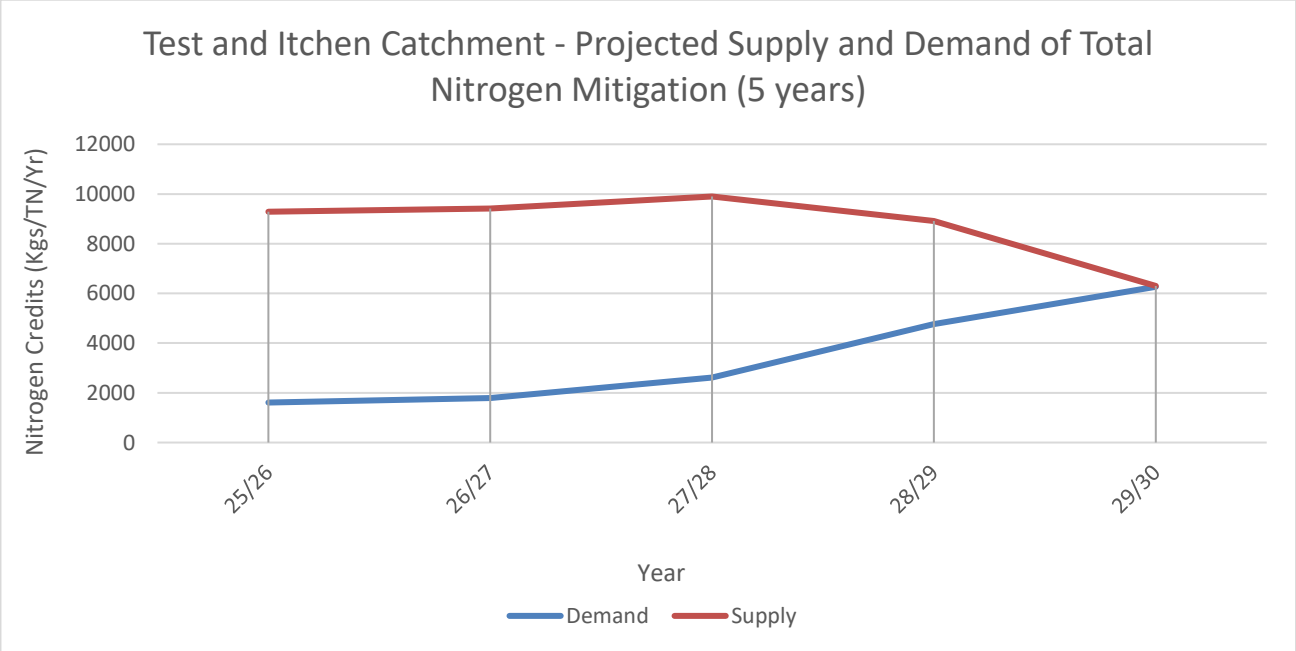

Figure 2 – Projected supply and demand of nutrient mitigation in the Test and Itchen Catchment over next 5 years (Source: PfSH December 2025 Joint Committee)

(0 – 5 Years)

19. As shown in Appendix 1, the estimated phasing of allocation units between 0-5 years would generate a nutrient need of approximately 75.1 Kg/TN/Yr. This is comfortably within the range of estimated supply of nutrient credits within the Test and Itchen Catchment shown in figure 2. The SDNPA has legal agreements in place with one existing mitigation scheme that development can obtain suitable mitigation from in the catchment. The scheme is almost at capacity but is planning to bring forward further TN mitigation within the next 5 years. There are also several other schemes that the SDNPA could sign up to if further mitigation was required.

(5+ Years)

20. Appendix 1 estimates for the period beyond 5 years an additional 212.5 Kg/TN/Yr will be required to satisfy the Test and Itchen catchment demand within the National Park.

Itchen Catchment (Total Phosphorus)

21. There are four Local Plan allocations located within the Itchen catchment, that therefore have a TP requirement. There are strict spatial principles that apply to mitigation in the River Itchen, the main principle being that the point at which development impacts the river must be downstream of the mitigation. Three of the four allocations in the Local Plan are located in the Upper Itchen. The Upper Itchen is classed as all the WwTWs in the catchment except for Chickenhall WwTW which is classed as the Lower Itchen.

22. Figure 3 is an extract from the recent Solent Nutrient S&D report[1] considering the supply and demand for nutrient credits within the Upper Itchen catchment. The figure shows the expected level of TP mitigation which will be available in the Upper Itchen Catchment over the next 5 years.

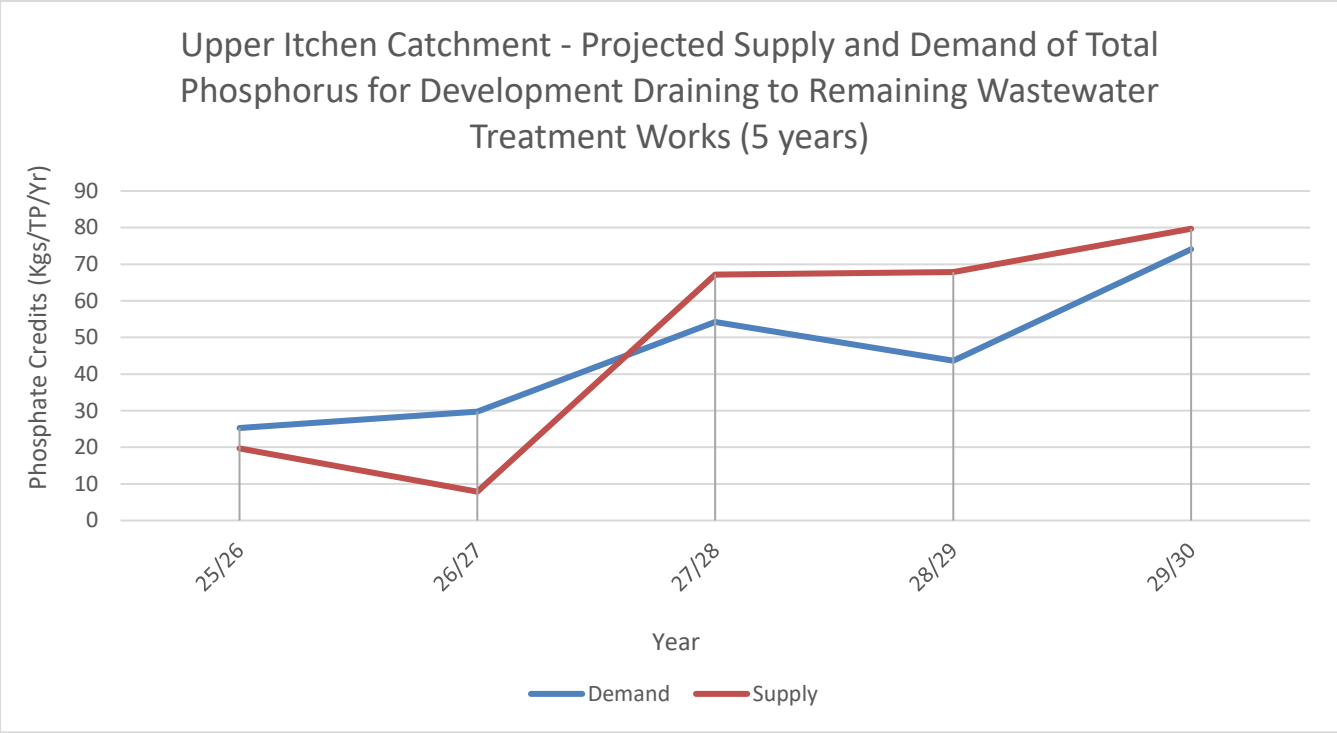

Figure 3 – Projected supply and demand of nutrient mitigation in the Upper Itchen Catchment over next 5 years (Source: PfSH December 2025 Joint Committee)

(0 – 5 Years)

23. As shown in Appendix 1, the estimated phasing of allocation units in the Upper Itchen between 0-5 years would generate a nutrient need of approximately 9.8 Kg/TP/Yr. This is comfortably within the range of estimated supply of nutrient credits within the Upper Itchen Catchment shown in figure 3. The SDNPA has legal agreements in place with one existing mitigation scheme that development can obtain suitable mitigation from in the catchment. The schemes is almost at capacity and therefore, further mitigation will need to be sought to satisfy demand. There is at least one other scheme available in the catchment that could satisfy demand, but the SDNPA would need to enter into a legal agreement with the scheme to access the credits.

24. There is one allocation in the Local Plan SDA80 ('Land north of Hewlett Close, Twyford) that is located in the Lower Itchen and drains to Chickenhall WwTW. This allocation could access mitigation from either the Upper or Lower Itchen. Based on the information from the Solent Nutrient S&D report[1], the Lower Itchen has sufficient mitigation to cover the catchment demand for around the next 10 years. The supply in the Lower Itchen is based on one existing mitigation scheme. The SDNPA would need to enter into a legal agreement with the scheme to be able to access the credits.

25. For the (0 – 5) TP requirement of the Local Plan to be met the SDNPA will need to enter into a legal agreement with at least one scheme in the Upper Itchen which can then provide sufficient mitigation to cover all four allocations. There is also the option to enter into an agreement with a scheme in the Lower Itchen to be able to serve just the SDA80 allocation.

(5+ Years)

26. Appendix 1 estimates for the period beyond 5 years an additional 30.1 Kg/TP/Yr will be required to satisfy the Itchen catchment demand within the National Park. Of this additional demand only 0.7 Kg/TP/Yr is located in the Lower Itchen with the remaining 29.3 Kg/TN/Yr occurring in the Upper Itchen.

Local Plan Allocations and Neighbourhood Development Plans - Long Term Nutrient Mitigation Need (5+ Years)

27. Appendix 1 estimates that in total across all the nutrient affected allocations an additional 236 Kg/TN/Yr and 30 Kg/TP/Yr will be required in the Local Plan period beyond 5 years across the Test and Itchen and East Hampshire catchments. Based on the Solent Nutrient S&D report from December 2025 there is not currently enough supply to meet this need. However, while nutrient mitigation has not yet been identified to satisfy these years, the current rate of mitigation schemes coming online is expected to continue and be able to meet future demand. This is informed by the investment strategy of organisations such as the Solent Mitigation Partnership who received funding from MHCLG to create large-scale nutrient mitigation sites to enable housing delivery. Also, the South Downs National Park Authority has a green financing brokerage service for developers looking to purchase offsetting credits for nitrogen and/or phosphorous. Beyond the next 5 to 10 years, it is likely that mitigation will be supplemented by enhancements to regional WwTW which have a 5+ year investment cycle. For example, WwTW serving over 2000 population will be upgraded to TAL by 2030. This was mandated through the Levelling Up and Regeneration Act (LURA) 2023 and will result in a reduction in the overall demand for nutrient mitigation in the catchments. Alongside this, it is expected that other strategic solutions will also come forward such as Environmental Delivery Plans (EDPS). These are being developed by Natural England and are expected to come forward in the medium term as another form of nutrient mitigation that developers can utilise. However, when exactly the EDPs will come forward and whether they will provide suitable mitigation for the allocations is currently unknown.

Windfall

Western Streams

28. Appendix 1 estimates the windfall nutrient demand for the Western Streams catchment to be 36 Kg/TN/Yr in the first 5 years and then 251 Kg/TN/Yr beyond 5 years.

East Hampshire Rivers

29. Appendix 1 estimates the windfall nutrient demand for the East Hampshire Rivers catchment to be 90 Kg/TN/Yr in the first 5 years and then 627 Kg/TN/Yr beyond 5 years.

Test and Itchen

30. Appendix 1 estimates the windfall nutrient demand for the Test and Itchen catchment to be 72 Kg/TN/Yr in the first 5 years and then 501 Kg/TN/Yr beyond 5 years.

Itchen

31. Appendix 1 estimates the windfall nutrient demand for the Itchen catchment (TP) to be 10 Kg/TP/Yr in the first 5 years and then 69 Kg/TP/Yr beyond 5 years.

Windfall Summary

32. The windfall figures presented above are extremely precautionary as it is expected that a windfall development would likely have negative land use change and a lower wastewater permit due to a bespoke PtP or by connecting to a mains sewer. These factors would likely result in a lower nutrient load being required.

Conclusion

33. Based on the above, we can conclude that sufficient nutrient mitigation credits will be available to satisfy the development needs of the SDNPA across all of the Local Plan allocations. However, for five of the allocations the SDNPA will need to enter into legal agreements with new schemes for the allocations to be able to obtain suitable mitigation from the supply that is available in the catchments. Alternatively, another strategic solution may come to the market. Assuming one of these takes place, the Plan meets the provisions of the Habitat Regulations.