

# Nutrient Neutrality Briefing Note

Place Development

December 2024

Version 1

## Contents

|                                    |    |
|------------------------------------|----|
| Foreword .....                     | 3  |
| Executive Summary .....            | 4  |
| What is nutrient neutrality? ..... | 5  |
| Nitrates in the Solent .....       | 7  |
| Background .....                   | 7  |
| Finding solutions .....            | 10 |
| Outlook.....                       | 11 |
| Phosphates in the River Avon ..... | 16 |
| Background .....                   | 16 |
| Finding solutions .....            | 16 |
| Outlook.....                       | 20 |
| Appendix 1.....                    | 22 |

# Foreword

This briefing note has been prepared to provide the current position on nitrates and phosphate pollution and mitigation for the New Forest District Planning Area.

This note sets out the following:

- What nutrient neutrality is and why it is an issue
- Nitrates in the Solent catchment
- Phosphates in the River Avon catchment
- The outlook for mitigation measures in both catchments

# Executive Summary

Nutrient pollution is a major environmental issue for many of our most important places for nature in England. In freshwater habitats and estuaries, increased levels of nutrients (especially nitrogen and phosphorus) can speed up the growth of certain plants, disrupting natural processes and impacting wildlife. This process (called 'eutrophication') damages these water dependent sites and harms the plants and wildlife that are meant to be there.

Natural England has advised that housing and other development which would result in an increase in 'overnight' stays, should achieve nutrient neutrality to avoid any likely significant effects. In the New Forest District Council (NFDC) area, the Waterside and South Coast areas must offset its nitrates impacts on the Solent and Southampton Water SPA whilst phosphate impacts need to be offsite for development in the River Avon area.

For NFDC approximately 6,000KgN is required to offset planned growth in the Local Plan in the Southampton and Solent Area, whilst 350kg/TP/year is required to be offset in the River Avon area. Credit schemes have been implemented but due to being market-led a credit in the River Avon area is approximately 4-5 times more expensive than that in the Solent area.

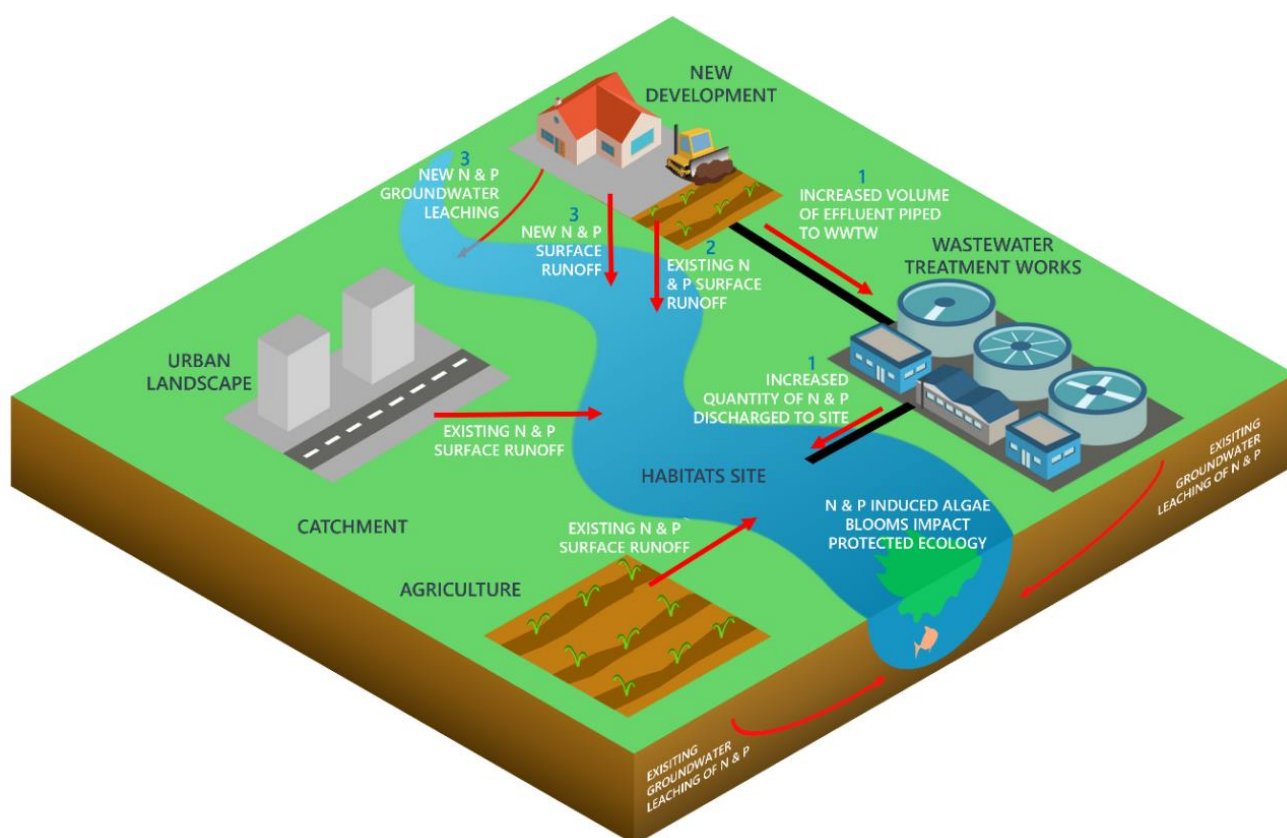
There is currently sufficient supply for credits in the short to medium term whilst officers continue to explore mitigation options for future years. Whilst other market led schemes are coming on board NFDC continues to work with the Partnership for South Hampshire (PfSH) and using a significant amount of funding secured under the Local Nutrient Mitigation Funding from Government.

## What is nutrient neutrality?

- 1.1 Nutrient pollution is acknowledged to be a significant environmental issue affecting freshwater habitats and therefore requires mitigation through the planning system in perpetuity to reduce the impact of new residential development. Twenty-seven catchments across England have been designated as 'protected environments' under the Conservation of Habitats and Species Regulations (2016). This is due to what Natural England describes as their 'unfavourable condition' and high sensitivity to phosphorus and/or nitrogen (both of which are nutrients).
- 1.2 Increasing nutrient concentrations reduces oxygen levels in the water and leads to excessive algal growth ('eutrophication'). Eutrophication affects the survival of aquatic insects and invertebrates that birds and fish feed on. Nitrogen nutrients (nitrates, nitrites, ammonia) affect coastal habitats in particular, whereas phosphates are more harmful to freshwater environments. A diagram of the process is found in Figure 1 below.
- 1.3 Natural England has been clear that there are likely to be significant adverse effect on internationally designated nature conservation sites in the Solent and Southampton Water Special Protection Area (SPA) due to the increase in wastewater (nitrates) from new development, particularly housing. This affects the eastern part of the district with details set out in Section 2 below.
- 1.4 Similarly, it advises that phosphorus concentrations in the River Avon have reached a level where adverse effects upon aquatic plants and species important to the integrity of the River Avon Special Area of Conservation (SAC) cannot be ruled out. This affects the western part of the district with details set out in Section 3 below.
- 1.5 In both catchments Natural England has advised that housing and other development which would result in an increase in 'overnight' stays, should achieve nutrient neutrality to avoid any likely significant effects.

- 1.6 In cases where nutrient pollution cannot be avoided, mitigation must be put in place to achieve nutrient neutrality. This can be achieved through both onsite and offsite mitigation measures. Offsite mitigation refers to action taken by landowners in the same catchment area as the development to reduce nutrient pollution. In doing this they can purchase nutrient credits from landowners.
- 1.7 Maps showing the two geographies of the nutrient mitigation areas for New Forest District Planning Area are set out in the proceeding sections. A further map showing the catchments for waste water treatment works in the NFDC area is found in Appendix 1.

**Figure 1 - water catchment system showing the pathway for impact (black line) from new residential development**



Source: **NFDC - Ricardo/Natural England** (weblink)

# Nitrates in the Solent

## Background

- 2.1 Development in the Waterside and South Coast sub-areas must offset its nitrate impacts on the Solent and Southampton Water SPA (Solent catchment area shown in Figure 2 below). Feedback from the market suggests that the average mitigation cost per dwelling is £3,000 - £4,000 for the Solent area. For development commitments in the NFDC area of the Solent to 2036 (across the current Local Plan period) about 6,000kgN (kilograms of Nitrate) offsetting capacity is required for around 4,200 homes.
- 2.2 Developers must use nutrient budget calculations (published by Natural England) to show that their proposals will not bring about a net increase in nutrient pollution and must use these to support a planning application. The calculator was last updated in January 2024.
- 2.3 The Levelling up and Regeneration Act (LURA) included the provision that wastewater treatment works (WwTWs) serving 2,000 or more homes must upgrade to best practice nitrate stripping permits by 2030. Therefore, the mitigation requirement is now split into a Pre-2030 and Post-2030 credit requirement. These are also described as temporary (Pre-2030) and permanent (Post-2030) credit requirements. Both temporary credits and permanent credits may be needed to satisfy nutrient reduction requirements. In the Solent catchment, temporary credits are not currently available. In this instance, permanent credits can be used to satisfy requirements, but these are more expensive due to the higher mitigation requirement for any dwellings that are occupied pre-2030 (this being due to the WwTWs not being upgraded until 2030).
- 2.4 There are three broad nitrate catchments covering the Solent area in New Forest District, shown in Figure 3 below. Of the 6,000KgN of offsetting required in these catchments, this is distributed as follows and must be mitigated by an offsetting scheme in the same catchment:

**Figure 2 – The Solent catchment area**

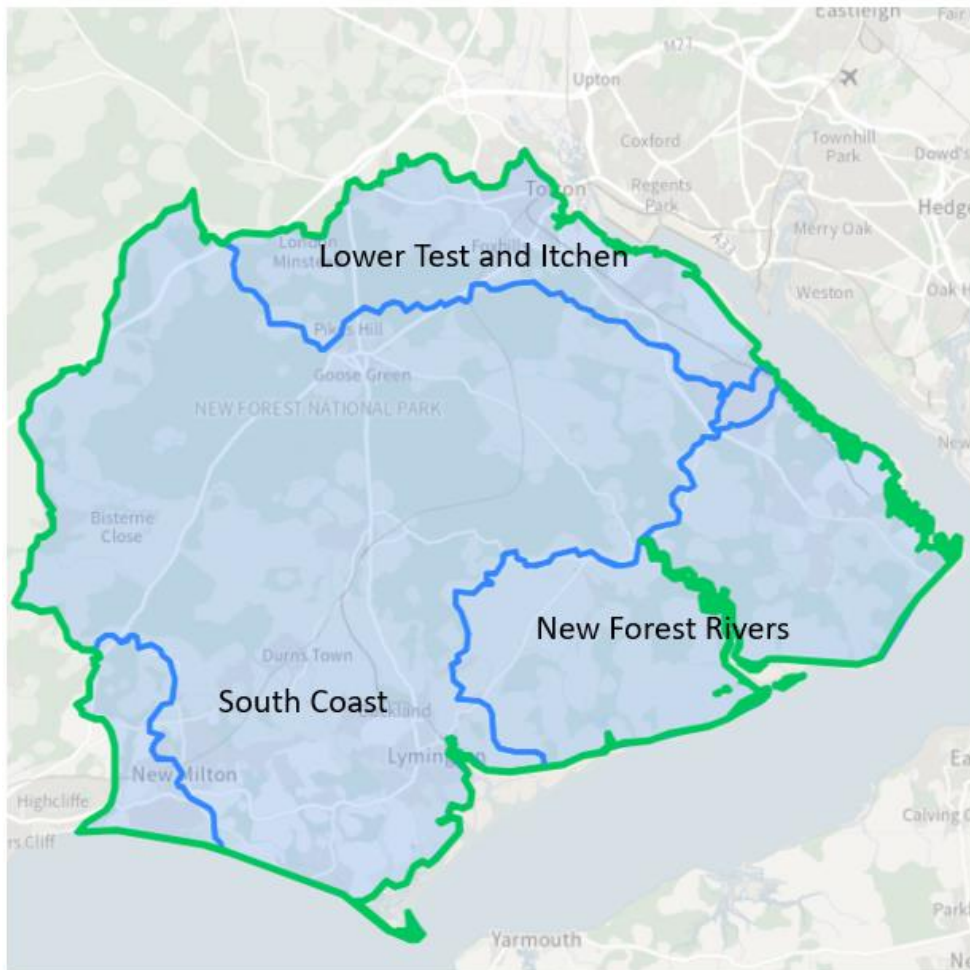


© Crown copyright and database rights 2024 Ordnance Survey AC0000820269

Map source: **New Forest District Council**



**Figure 3 – The local catchments within the Solent area**



© Crown copyright and database rights 2024 Ordnance Survey AC0000820269  
This information is licensed under the [Open Government Licence v3.0](#) (weblink)

- o The middle and upper Waterside (Lower Test + Itchen catchments – 3,900KgN)
- o The lower waterside Fawley/Holbury (New Forest Rivers - 300KgN)
- o The south coast (New Forest Rivers and Isle of Wight Rivers – 1,800KgN)

- 2.5 Regarding the need for new projects, on current 'emerging project' trends there are good prospects that new supplies will continue now that Ministry of Housing, Communities and Local Government (MHCLG) funding has been secured (see paragraphs 2.17 – 2.21). The PfSH Strategic Environmental Planning (SEP) team will continue to seek and bring forward further mitigation schemes in future years.

## Finding solutions

### Market-led

- 2.6 This is currently working very well in terms of supplying credits to the market and there are significant recent projects that are benefiting all the planned development in the NFDC Solent area.
- 2.7 However, with ongoing development pressures likely to require such projects to continue to come forward in the medium to longer term (i.e. beyond 2036), future bottlenecks cannot be ruled out. The market-led approach also lacks any notable strategic direction or planning, with some concerns that opportunities for wider public benefits are not being optimised.
- 2.8 Local authorities have relied on the Solent nutrient commercial market for the initial identification of projects, entering into legal agreements with sufficient suitable providers to enable them to serve the area efficiently with some choice and competition.
- 2.9 In this context, the Partnership for South Hampshire (PfSH), is taking a more pro-active approach in purchasing suitable land for which credits can be sold to developers. Consequently, there are additional opportunities to secure wider benefits for nature recovery and environmental improvements in a more coordinated manner, but the majority of future credit supply will still be market led.

- 2.10 Kingwell has finalised the legal framework for its mitigation project at Keyhaven (the Belport scheme) and it has now come to market. It also includes Biodiversity Net Gain (BNG) value in relation to the Environment Agency's coastal realignment project (including possible flooding risk infrastructure). In addition, NFDC receives developer contributions from development towards monitoring this area of work; this will be used to ensure better outcomes for both people (quality of life) and places (environmental improvement). Schemes such as Keyhaven further improved an already fairly healthy supply of credits and the competition for credits along the south coast of the NFDC area. As things stand, there is sufficient credit supply to meet current needs to 2036 in this catchment.

#### NFDC assets

- 2.11 With regard to current NFDC land holdings, NFDC land holdings are limited and do not have high-nitrate activities that could usefully be retired to generate mitigation credits.
- 2.12 In relation to NFDC land acquisition, NFDC to date has not proactively sought to acquire undeveloped land which might be suitable for nitrate mitigation. It is recognised that there are potentially higher land values in the New Forest than other parts of the Solent area, perhaps reflecting the limited land available. High-nitrate activities that it may be worth obtaining to retire are not widespread in the district.

## Outlook

- 2.13 It is anticipated that nutrient neutrality is a long-term issue with significant funding going towards new local authority-run solutions. It is harder to predict the medium-term plans for nutrients with the new government only just being installed. The PfSH partnership and catchment-based approach to strategic nutrient mitigation in the Solent region, has facilitated an active nutrient mitigation market. This has resulted in sufficient mitigation to satisfy the short-medium term need for development in all catchments.

- 2.14 The supply of nutrient mitigation in the **Lower Test and Itchen catchment** (Figure 3) is healthy and there is enough supply of credits until 2029/30 and therefore sufficient for a 5-year supply down the eastern waterside part in the district. It appears increasingly likely that a suitable and sufficient flow of further credits to offset nitrogen from planned development will increase from a mix of mitigation projects by private providers and land-owning local authorities. PfSH SEP is working with providers and Wiltshire council to progress these schemes.
- 2.15 For the **New Forest Rivers and South Coast catchment** (Figure 3) there is currently sufficient supply within the New Forest Rivers Catchment to satisfy demand in the long-term (up to 14 years currently). The recent inclusion of the Keyhaven scheme has provided substantial credit to the market and places NFDC in an excellent position in relation to the supply of mitigation credits for the southern coastal towns in the district.
- 2.16 An additional private scheme at Shalfleet (Isle of Wight) is looking to enter into a Section 33 agreement with NFDC for the delivery of nitrate credits (and likely BNG credits too) and this is being progressed with NFDC's legal team with an anticipated final agreement in early 2025.
- 2.17 In addition, the Solent area is now in receipt of further funding (Round 1 capital programme of £9.6m) to deliver nutrient mitigation schemes from the governments Local Nutrient Mitigation Funding (LNMF). Substantive work is now being undertaken in relation to the deployment of the Local Nutrient Mitigation Fund. This has been formalised through the signing of an Inter Authority Agreement by all local authority partners who wish to participate as a 'Benefiting Party' to projects brought forward (anticipated to be completed in December 2024). The Agreement is a collaborative Partnership between local authorities within, and adjoining, PfSH, as well as national and local nature conservation bodies.

- 2.18 A summary of the schemes and their benefits currently being worked up as part of the mitigation fund are:
- o Water efficiency project to council owned properties: upgraded fixtures for tenants, reducing water bills in the process; can be deployed rapidly.
  - o Land purchase: following the principles of the established open market but seeking additional benefits; council led & controlled rather than relying on open market.
  - o Septic tank upgrades to modern Package Treatment Plants (PTP): this provides an immediate reduction in nutrients at source where sites are not part of the sewage treatment network.
  - o Reduction of intensive agriculture: removing land from nitrate-heavy use and bringing additional benefits of public access, BNG, and water resource management (in particular the recently launched scheme in Stubbington that mitigates for development sites in the NFDC area that drain to the Ashlett Creek WwTWs).
  - o Wetland projects: three are being looked at; again on LPA owned land; removing nutrients in different settings.
- 2.19 The Water efficiency project relates to water efficiency in existing Council owned housing, and looks to provide upgraded fixtures for tenants, reducing both their water usage and water bills. Whilst the process is still to be finalised, the principle is that the water quality savings resulting are then used for the mitigation of future new build council homes (nutrient credits are not sold). NFDC's housing team are involved in this scheme and were subsequently awarded £90k from the LNMF fund. They have regular liaison with the PfSH project team, however there are ongoing discussions around the use of the fund within the existing NFDC work program and this has yet to be resolved. If it cannot be resolved the money will be returned to PfSH for other mitigation projects.

- 2.20 Projects are being worked up that can deliver schemes in this financial year (2024/25) of around £2.4m. The remaining £4.8m will initially be directed at nitrogen mitigation in the Test and Itchen catchment in 2025/26. PfSH is currently in negotiations on a scheme in the Lower Test catchment which would provide new credits for NFDC development.
- 2.21 The approach and range of projects may need to be revised following the October 2024 announcement of a further round of government funding (Round 2) for the Solent catchment, which amounts to £6.93m plus capacity support funding of £224k which will fund the work of the PfSH team. Now that the NFDC area is in receipt of the Keyhaven credits, PfSH will be prioritising funding on other authorities in the PfSH area where there are currently limited supplies of credits. Current advice from the PfSH SEP team is that NFDC should consider applying for funding from PfSH for Package Treatment Plants (septic tank upgrades) for sites/dwellings that are not connected to the sewage treatment network, especially where NFDC owns property where this is the case. Decisions on funding allocations will be made by the PfSH Joint Committee in February 2025.
- 2.22 The option for NFDC to enter into agricultural land purchase schemes remains available. NFDC can identify land for sale and the funding for this would come from the PfSH LNMF. The mitigation credits would be made available as a strategic scheme for wider PfSH authorities in the requisite catchment. The PfSH SEP team are actively scanning the market for land that is coming up for sale (such as Stubbington) and considers new opportunities on a regular basis. The credits arising from the Round 2 scheme would be sold by PfSH. If NFDC becomes aware of land that is available then it can feed the information to the PfSH team for appraisal.
- 2.23 There will be additional opportunities to secure wider benefits in a more coordinated manner, but the majority of future credit supply will still be market led.

2.24 The outlook remains very positive and NFDC can continue to rely to a large extent on the schemes already in place to provide mitigation. The PfSH credit schemes will remain available to NFDC, but the healthy supply of credits from the open market has now placed NFDC in a stable position for the Solent and Southampton Water catchment.

2.25 The Strategic Environmental Planning (SEP) team at the Partnership for South Hampshire (PfSH) is currently appraising the latest position regarding credit supply and future demand. PfSH will provide its next annual statement on the supply and demand situation in January 2025. Going forward this will be updated annually for all PfSH local authorities.

### Solent - Summary Table

| Overall Catchment | Nutrient issue | Local catchments   | Years of committed supply of nutrient mitigation          | Source of mitigation  |
|-------------------|----------------|--|---|---|
| Solent            | Nitrates       | Lower Test and Itchen                                    | 5-year supply + emerging schemes for a supply beyond that | Market schemes + Local Nutrient Mitigation Fund (Inter Authority Agreement) |
|                   |                | New Forest Rivers  | 5-year supply + emerging schemes for a supply beyond that | Market schemes + Local Nutrient Mitigation Fund (Inter Authority Agreement) |
|                   |                | South coast (New Forest Rivers and Isle of Wight Rivers) | 14-year supply  | Market schemes  |

# Phosphates in the River Avon

## Background

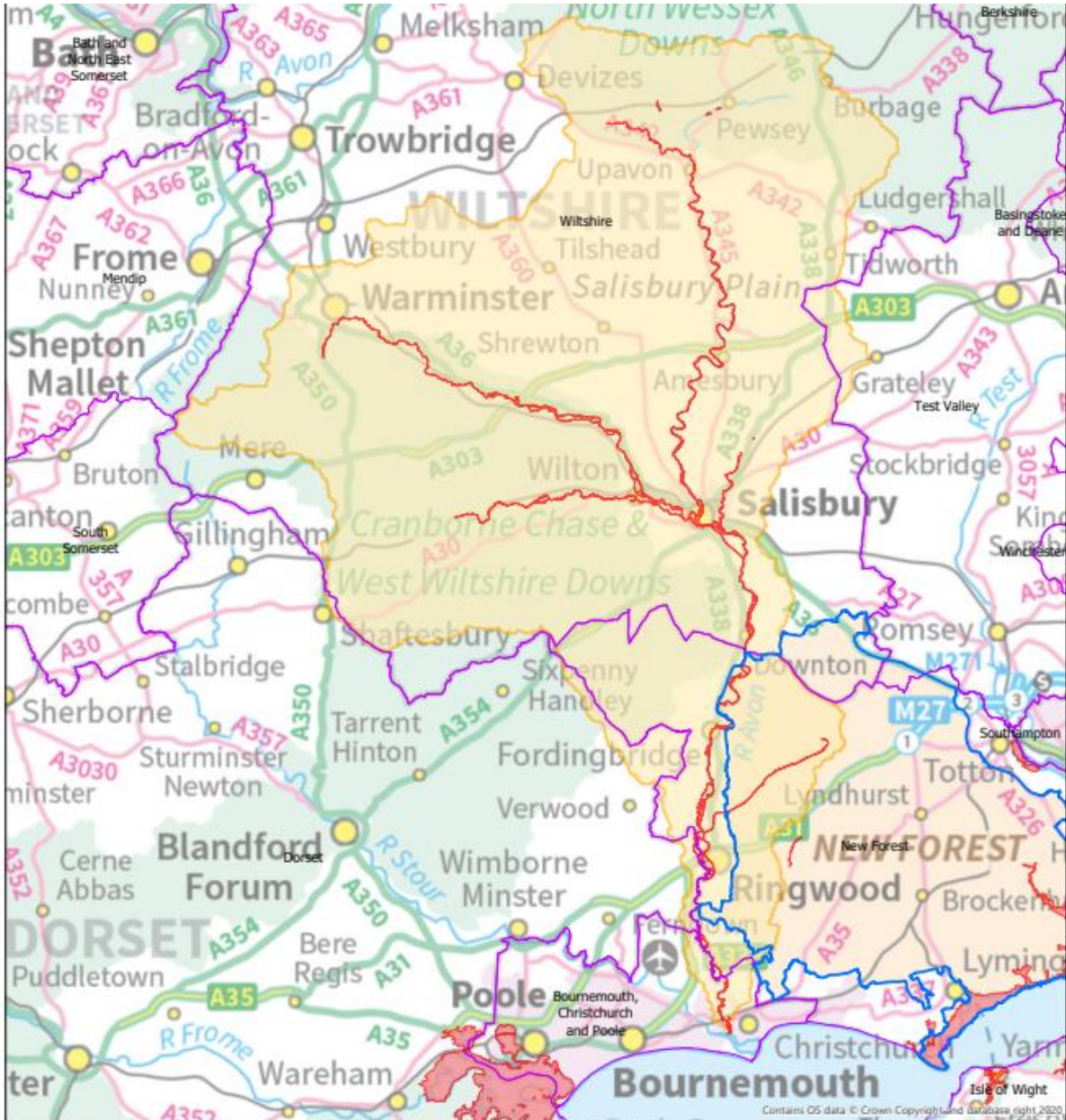
- 3.1 The background to the Avon phosphates issue is broadly similar to that for Solent nitrates. The River Avon catchment is shown in Figures 4 and 5 below. It first became an issue for Wiltshire Council, who in 2015 published a strategy that primarily planned to offset increased phosphate from development using a national programme to improve farming practices ('Catchment Sensitive Farming'). Schemes must meet high standards of scrutiny by Natural England. This means many types of offsetting have been discounted and the roll-out of acceptable schemes has been slower than expected.
- 3.2 Planned NFDC housing growth up to 2036 in the Avon catchment is at least 2,400 homes requiring 350kg/Total Phosphate (Kg/TP/year) of phosphate offsetting.

## Finding solutions

- 3.3 NFDC is part of the Avon Working Group (AWG). Members of the group also include Natural England, Environment Agency, Wessex Water, Wiltshire Council, Dorset Council, Test Valley Borough Council, New Forest National Park Authority, and Bournemouth, Christchurch & Poole Council (BCP).
- 3.4 For the Avon Valley and Downlands area there is one provider of credits (the fish farm at Bicton that has been decommissioned) which is currently the sole provider for credits in the Lower Avon area. The retirement of the fish farm has generated mitigation credits of around 920kg/TP/year - enough to cover all projected development in the NFDC part of the catchment for the next 5-10 years. However, due to the limited local phosphorous credit market, these credits are being valued at £75,000 per 1kg/TP/yr (around £17,5000 per dwelling if it is connected to the main sewer network).



**Figure 4 – The River Avon catchment area**



European protected sites requiring nutrient neutrality strategic solutions

Scale: 1:280,000

**Component SSSIs of River Avon SAC**

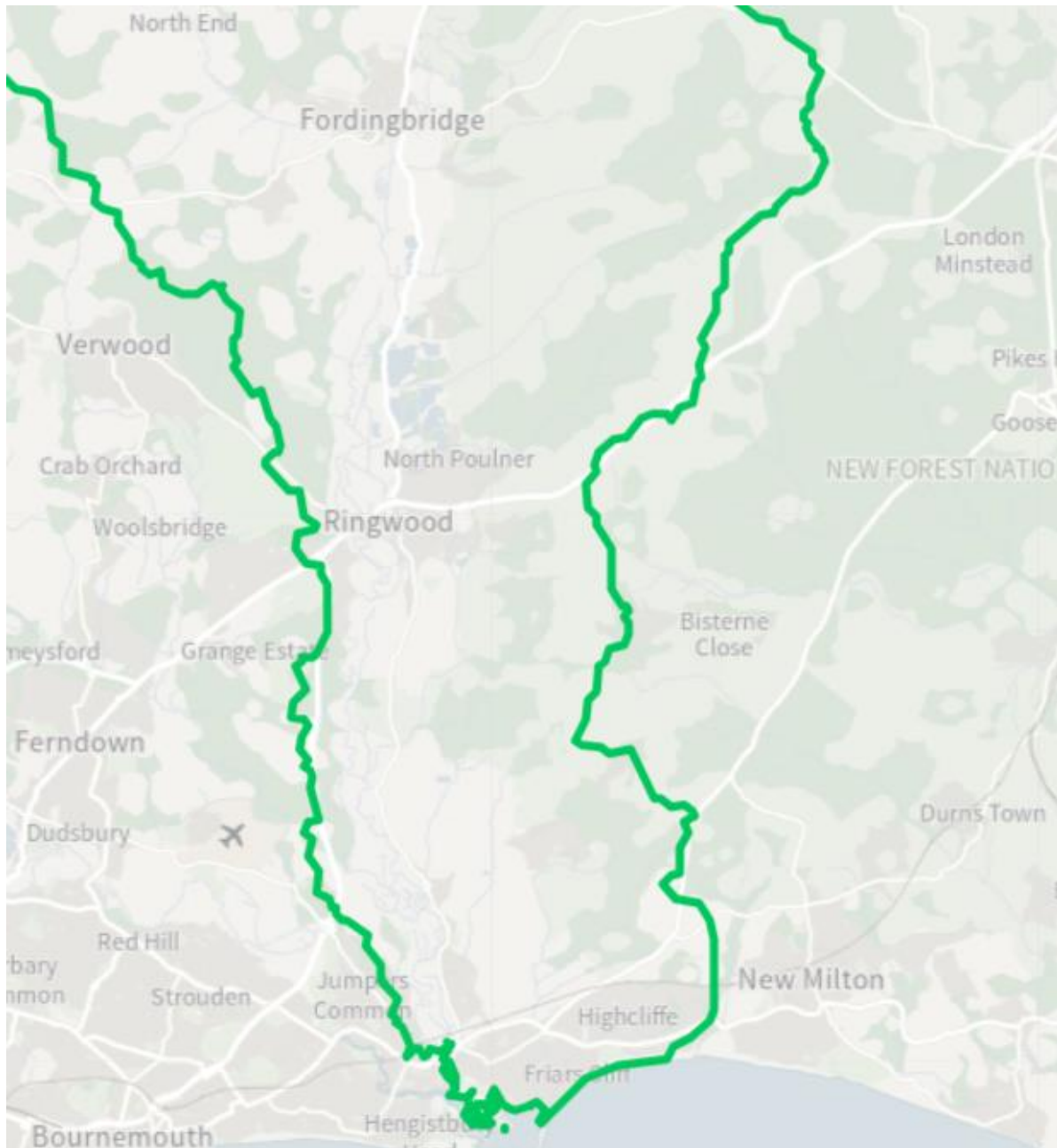
- Local Authorities
- SSSI subject to nutrient neutrality strategy
- Nutrient neutrality SSSI catchment
- National Parks



© Crown copyright and database rights 2024 Ordnance Survey AC0000820269

Map source: [Wiltshire Council](#)

**Figure 5 – Lower River Avon catchment (NFDC part)**



© Crown copyright and database rights 2024 Ordnance Survey AC0000820269

This information is licensed under the [Open Government Licence v3.0](#) (weblink)

- 3.5 On a typical 3-bed house selling for £450,000 the purchase of appropriate phosphate credits are likely to currently cost in the order of £17.5k which equates to about a fifth of developer profit (assuming a 20% rate of return). The expectation is that as further credit schemes are brought forward this will introduce competition into the market and thus reduce the price.
- 3.6 The phosphate budget calculator, published by Natural England, to enable nutrient neutrality to be assessed for the Avon catchment was last updated in January 2024. As with the Solent catchment the mitigation requirement is now split into a Pre-2030 and Post-2030 credit requirement. It has been calculated that, as a result of the post-2030 upgrades to wastewater treatment plants in the Avon catchment, the phosphate loads into the Avon will reduce by 65% between 2025 to 2038.
- 3.7 In addition, like the Solent, the Avon catchment is now in successful receipt of funding (£9.8m) from the government to deliver nutrient mitigation schemes through its Local Nutrient Mitigation Fund (LNMF). But in contrast to the Solent catchment, the River Avon catchment did not receive any Round 2 funding from government.
- 3.8 Wiltshire Council (as lead authority for the work) is progressing five delivery programmes which will allow the local authorities to release nutrient credits for development in all Local Planning Authority (LPA) areas. These programmes are being developed at pace and likely to be completed in 2025/26. Wiltshire Council is now collating information from the LPAs on the demand from development in our areas and will work with NFDC on the legal agreements to arrange for credits to be available to our developments.
- 3.9 So far, £6.8m has been allocated to projects. It is being recommended that the remaining £3m is allocated to a reserve fund to enable Wiltshire Council to explore land purchase to enable mitigation projects that can deliver multiple benefits. The funding allocations are anticipated as follows:
- i. Council-owned sewage upgrades - £1.8m (to reduce nutrients directly)
  - ii. Household sewage upgrades - £4.7m (septic tank upgrades potentially 260kg of phosphorus per annum)
  - iii. Woodland planting opportunities - £150,000 (riparian tree buffer strips)

- iv. Wetland opportunities - £150,000 (further upstream with Wiltshire Wildlife Trust)
  - v. Reserve fund for land purchase - £3m.
- 3.10 The advantage of the Wiltshire-owned land and householder sewage upgrade scheme is that this allows many different areas of the catchment to be targeted for mitigation projects. Wiltshire Council will therefore be able to offer credits to the whole catchment and it could be used to meet the demand in NFDC's urban areas as well as the housing in the other LPAs outside of Wiltshire.
- 3.11 The schemes identified by Wiltshire are anticipated to produce credits that would cost around £4,235 per dwelling (on average across the catchment). This is derived from a headline price of £38,500 per 1kg of total phosphorus with an additional 5% administration charge. The mitigation fee is payable on commencement of development, and this can be secured through a section 106 agreement or through a unilateral undertaking.
- 3.12 A fish farm decommissioning scheme is being progressed with the 'Environmental Farmers Group' consortium at the Barford / Trafalgar site (north of Downton). This scheme will involve the removal of the trout farming licence from the site and the reduction of water abstraction. The appropriate Section 33 legal agreements for this scheme are nearing completion.
- 3.13 A further opportunity for a fish farm decommissioning scheme at Britford (south-east of Salisbury) had been in negotiations with Wiltshire Council to progress a Section 106 legal agreement for the sale of credits. But it is looking increasingly unlikely that the scheme will come forward due to commercial reasons.

## Outlook

- 3.14 The phosphate issue has proved more difficult to resolve than the nitrates issue and the timeframe for the identification of solutions has been unpredictable. However, with the arrival of the government's LNMF progress is now being made.

- 3.15 New mitigation projects as outlined above are being brought forward and the legal frameworks for these schemes are being progressed. This will provide not only an increased supply of credits but should also help to suppress / reduce the price of mitigation credits in future years.
- 3.16 Finally, OFWAT is in the middle of signing off the business plan for Wessex Water. This is expected to be completed by the end of 2024. It is therefore possible that we could see some works to upgrade wastewater treatment plants before 2030.

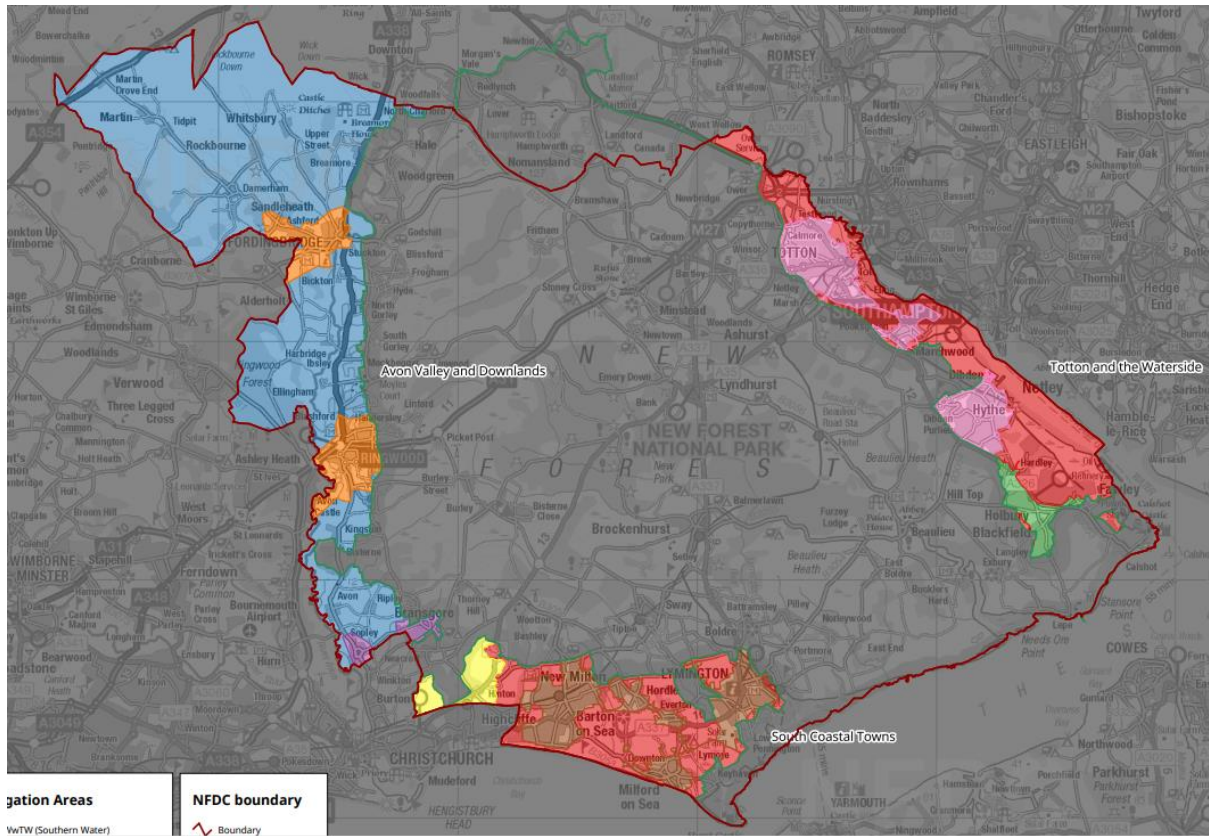
#### River Avon – Summary Table

| Overall Catchment | Nutrient issue | Local catchments | Years of committed supply of nutrient mitigation          | Source of mitigation                                   |
|-------------------|----------------|------------------|---|--|
| River Avon        | Phosphates     | N/A              | 5-year supply + emerging schemes for a supply beyond that | One market scheme + emerging Inter Authority Agreement |



# Appendix 1

[The District Plan Area with nutrient catchment areas and their respective waste water treatment works](#)



© Crown copyright and database rights 2024 Ordnance Survey AC0000820269

