



## **Report to the Partnership for South Hampshire Joint Committee**

**Date:** 27 July 2021  
**Report of:** David Bibby, Principal Planning Officer (Strategy), Test Valley Borough Council  
**Subject:** PFSH NUTRIENT NEUTRALITY UPDATE

### **SUMMARY**

There is evidence of high levels of nitrogen and phosphorus in the Solent water environment, including evidence of eutrophication at some internationally designated sites. This must be addressed as required by the Habitats Regulations. The achievement of nutrient neutrality is a means of ensuring that new housing development does not add to existing nutrient burdens.

This report provides an update on recent progress made on the work that PfSH is undertaking with partners to address the issue of achieving nutrient neutrality from development across the sub-region. In light of the advice from Natural England, the aim continues to be to develop a PfSH-wide strategic approach to mitigation in order to achieve nutrient neutral development - and deliver the planned housing development compliant with the Habitats Regulations. Action continues under a number of work streams as outlined in this report. The work undertaken by the PfSH Strategic Environmental Planning Officer is covered in a separate report.

Since the last meeting of Joint Committee on 22 March the following activity has taken place:

- The Environment Agency (EA) has appointed a dedicated official to lead its review of consents for Waste Water Treatment Works (WwTW) Nitrate (N) permits that it is undertaking. The EA is currently scoping the breadth of the review which will target the area around the Solent.
- Southern Water has completed its voluntary monitoring of nitrate levels in Waste Water Treatment Works (WwTW). The results show a wide variance in the figures for total nitrogen (TN) discharges recorded, but generally that the level for those WwTW without N removal is close to the catchment average of 27mg/l used in the Natural England advice and budget calculator. Natural England therefore confirmed that it does not consider it appropriate to amend their guidance or budget calculator for non-permitted WwTW. The data collected is helpful in better understanding the levels of N discharged from WwTW which do not currently have an N permit and could feed into the review of consents.

- Two judicial reviews of decisions to grant planning permission for two residential developments in Fareham Borough have been heard together by the High Court. These confirmed that the approach to addressing the nutrient neutrality issue and achieving nutrient neutral development in line with the advice of Natural England was legally sound.
- The Strategic Environmental Planning Officer (SEPO) has been developing proposals for sub-regional mitigation in bringing together and building upon current and developing local mitigation schemes. This is the subject of a separate report
- PfSH continues to engage with central government, particularly DEFRA and the SEPO is liaising with colleagues at DEFRA regarding his work for the sub-region. Progress continues to be made in developing the DEFRA Solent Nutrient Trading Pilot Project. Research undertaken with end users has shown widespread interest from developers and landowners. DEFRA is keen to engage with PfSH on the legal requirements of implementing the scheme. The design element of the platform's development has gone out to tender. It is planned that the pilot will be implemented in early 2022.

This report provides a statement of the position at the time of writing. Any further progress will be given as a further verbal update to the meeting.

### **RECOMMENDATIONS**

It is RECOMMENDED that the Joint Committee NOTE the content of this report outlining PfSH's activity towards unlocking the delivery of housing which has been on hold due to the nutrient neutrality issue.

## SHORT TERM MITIGATIONS - DEALING WITH THE IMMEDIATE ISSUE

1. A number of mitigation options continue to be implemented and explored by individual PfSH local authorities, depending upon local circumstances. In some cases these have formal council approval, and also the approval of Natural England. Some local authorities have also revised their position regarding the issue of nutrient neutrality in the determination of planning applications. These have been taken into account in considering a sub-regional approach within the work undertaken by the PfSH SEPO.

## MEDIUM TO LONG-TERM MITIGATION STRATEGY (PfSH ACTIVITY)

### Environment Agency (EA) – Review of Consents (Review of Waste-water Treatment Works (WwTW Nitrate (N) Permit Limits)

2. Following the outcome of the EA Directors meeting on the 25 January 2021 to instigate a targeted review of permits in the Solent to address the implications of the Dutch N ruling, a dedicated officer has now been appointed to lead the review. The EA is currently scoping the breadth of the review which will target the area around the Solent. The review constitutes a significant piece of work for the EA, which has so far been unable to confirm timescales. The PfSH Water Quality Working Group has made representations to the EA to request that an aim should be to complete the review with sufficient time to feed into the start of the next five year investment programme for Southern Water (2025-2030). Clarification has also been sought on: the scope of the review compared to the previous one, its geographical scope, implications for WwTW, both those currently with an N permit limit and those without, and on the timescales and milestones including opportunities for stakeholder engagement.

### Southern Water Voluntary Monitoring of major Waste-water Treatment Works (WwTW) Nitrate (N) discharges

3. In April 2021 Southern Water completed its one year of monthly voluntary monitoring of nitrate levels discharged from major Waste-water Treatment Works in the Solent catchments, including those with no Environment Agency nitrate or 'N' permit. The results of the monitoring have been considered by an expert group from Southern Water, EA and Natural England. The results show a wide variance in the figures for total nitrogen (TN) discharge recorded, but generally that the level for those WwTW without N removal is close to the catchment average of 27mg/l used in the Natural England advice and budget calculator. The conclusion of Natural England is therefore that there is insufficient evidence for a change to the current approach and it has confirmed that they do not consider it appropriate to amend their guidance or budget calculator for non-permitted WwTW for N. A copy of Natural England's position statement issued following consideration of the results is attached as **Appendix A**.
4. The monitoring work has been a useful and valued exercise in confirming the value of using 27mg/l where WwTW do not have an N permit limit. It has also shown how variable the data can be. Moving forward, further work in the form of regular composite sampling over a year to take account of daily and seasonal fluctuations to establish WwTW specific levels is advised. There is also no certainty that WwTW will continue to operate to maintain current performance levels into the future, (in the absence of an N permit). Consideration of these issues could fall within the scope of the EA review of consents - outlined in paragraph 2 above.

### Judicial Reviews

5. Two judicial reviews ([2021] EWHC 1434 (Admin) and [2021] EWHC 1435 (Admin) of decisions to grant planning permission for two residential developments in Fareham Borough have been heard together by the High Court in May 2021. These confirmed that the approach to addressing the nutrient neutrality issue as it affects the international nature conservation designations in and around the Solent, and achieving nutrient neutral development in line with the advice of Natural England was legally sound.

#### Work of the Strategic Environmental Planning Officer

6. The Strategic Environmental Planning Officer has been developing proposals for sub-regional mitigation in bringing together and building upon current and developing local mitigation schemes. This is the subject of a separate report. A list of the currently available mitigation schemes, including contact details, which developers can access has been published in PfSH website. <https://www.push.gov.uk/work/mitigation-schemes-available-to-developers/>

#### Engagement with Central Government

7. PfSH continues to engage with central Government, particularly DEFRA and the SEPO continues to liaise regularly with colleagues there regarding his work for the sub-region.
8. Progress continues to be made in developing the DEFRA Solent Nutrient Trading Pilot Project - with DEFRA working in partnership with PfSH, Natural England and other key stakeholders. DEFRA officials also attended the meeting of the PfSH Planning Officers Group on 14 May to report on the progress of its rapid user testing. The pilot is intended to test a market based approach to nutrient mitigation which would assess the costs and feasibility of potential solutions compared to other options and wider benefits. It will trial a process to enable developers to connect via its platform to land managers to enable solutions which are fit for purpose and to enable mitigation to be scaled up in a viable manner and which will be in place cover the necessary perpetuity period.
9. Research undertaken with end users has shown widespread interest from developers and landowners. Landowners have asked if they will have the ability to 'stack' the benefits of taking part in line with other initiatives such as the Environmental Land Management Scheme (ELMS) and if land use change for mitigation will also allow it to be used for other (compatible) income generating purposes. An FAQ document for these groups is being prepared by DEFRA. Ongoing stakeholder engagement will continue, in particular on testing the platform, guidance and governance arrangements. DEFRA is keen to engage with PfSH on the legal requirements of implementing the scheme.
10. The EA is leading on gathering evidence on how best to monitor and enforce the use of mitigation land. The Solent Agricultural Pollution Investigation (SAPI) is also currently being concluded.
11. The design of the platform has gone out to tender and the market rules for the sale of credits is now being considered. It is planned that the pilot will be implemented in early 2022.
12. Details on the trading pilot project are available on the PfSH website <https://www.push.gov.uk/defra-trading-platform/>

## **CONCLUSION**

13. Action continues under a number of work streams as outlined on the report, in order to progress addressing the nutrient neutrality issue, working with key partners and stakeholders. A further update will be provided to the next meeting of the Joint Committee in October.

## **RECOMMENDATION**

It is RECOMMENDED that the Joint Committee NOTE the content of this report outlining PfSH activity towards unlocking the delivery of housing which has been on hold due to the nutrient neutrality issue.

**Appendices:** Appendix A - Natural England Position Statement

**Background Papers:** None

**Reference Papers:** None

**Enquiries:** For further information on this report please contact:-

David Bibby, Principal Planning Officer (Strategy), Test Valley Borough Council

T: 01264 368105

E: [dbibby@testvalley.gov.uk](mailto:dbibby@testvalley.gov.uk)

## **Southern Water Voluntary TN monitoring at STWs in the Solent Catchment Natural England Position**

Southern Water (SW) have provided Natural England with voluntary spot sampling data of TN at sewage treatment works (STWs) across the Solent catchment undertaken on behalf of PfSH authorities over the last year. The purpose was to assess effluent TN levels to check the accuracy of the 27mg/l average currently used within Natural England's Solent nutrient guidance for non-permitted STWs in the catchment, with the aim to inform more bespoke levels for each STW to be used when calculating nutrient budgets for development.

The dataset is fairly large with 517 samples from 42 STWs. There is wide variation in the concentrations of TN recorded, in part because there are low TN values from STWs with a TN consent concentration limit (i.e. works with tertiary N removal) alongside data from STWs with no tertiary N removal. Some STWs have very large ranges in TN data values which statistically will give large error margins around the sample mean. A summary of this data, and how these values compare with the numbers used within the nitrogen calculator is provided in Table 1.

Initial analysis of the raw data has indicated that generally effluent levels from STWs without tertiary N-removal are close to the catchment-average figure of 27 mg/l N currently used in the guidance. This default catchment-wide figure derived from sampling of two STWs in the Solent catchment and was found to be in line with data from Wessex Water data, which currently is considered the best evidenced and precautionary value to use until further evidence becomes available. Having a catchment-wide figure also provides the advantage of reducing the influence of deviations in performance from individual STWs.

As it stands Natural England considers the voluntary TN monitoring dataset does not robustly evidence a change from the default 27mg/l. We advise further work would be required in the form of regular composite sampling (i.e. multiple samples a day as opposed to spot sampling) over a year to take account of daily and seasonal fluctuations, to enable confidence in establishing STW-specific levels for calculating nutrient budgets.

Furthermore, even where enough data is provided to enable more accurate annual-average effluent levels for the different STWs, there is no certainty that works will be operated to maintain this performance level into the future. This raises the more fundamental question as to how bespoke effluent rates for individual STWs would be suitably secured, monitored (and enforced) in perpetuity to ensure compliance with the Habitats Regulations. It may be that this falls within scope of the Environment Agency's planned Permit Review however the projected timescales mean that this is unlikely to happen in the short term.

Therefore, based on the data provided and the problem with securing alternative effluent levels at non-TN permitted STWs, it is not at this time considered appropriate by Natural England to amend the guidance and calculator with regards to how to deal with non-TN permitted STWs.

**Table 1: The mean and range of Total Nitrogen present within water samples collected from wastewater treatment works across Hampshire and West Sussex (STWs with permits shaded with permit value in brackets)**

Wastewater Treatment Work	Number of samples	Total N: Mean (mg/l)	Total N: Range (mg/l)	Nutrient Calculator Value (Permit Type*)
Ashlett Creek	14	31.96	17.8 – 52.9	27
Bank	13	11.78	4.65 – 19.3	27
Barton Stacey	13	13.38	11.1 – 17.4	27
Beaulieu	5	11.48	6.36 – 15.4	27
Bishops Waltham	13	12.40	4.44 – 20.60	15 (TN)
Boldre	6	11.98	7.27 – 17.1	27
Bosham	13	7.73	1.83 – 15.50	10 (TN)
Brockenhurst	13	23.07	7.00 – 40.40	27
Budds Farm	14	7.32	4.24 – 9.55	9.7 (TN)
Buriton	12	30.55	11.10 – 36.50	27
Chichester (Apuldram)	13	4.30	1.76 – 7.13	9 (TN)
Chickenhall	12	21.07	7.33 – 28.2	27
Chilbolton	12	21.2	16.7 – 30.7	27
East Boldre	13	20.66	8.54 – 40.2	27
East Grimstead	12	21.92	10.7 – 39.80	27
East Meon	12	39.41	12.0 – 67.2	27
Fullerton	13	26.7	19.9 – 34.70	27
Godshill	8	32.26	13.3 – 46.0	27
Graemar Cottages	4	16.56	3.09 – 34.9	27
Harestock	13	24.10	19.70 – 29.50	27
Kings Somborne	14	15.20	10.0 – 28.50	27
Liss	12	31.15	14.80 – 40.20	27
Lyndhurst	15	14.57	8.23 – 20.80	27
Millbrook	13	6.89	2.96 – 11.00	10 (TN)
Morestead	9	21.28	13.80 – 25.10	27
New Alresford	9	16.01	14.60 – 19.40	27 (TIN – 25 mg/l)
North Waltham	9	13.62	10.1 – 20.60	27 (TIN – 20 mg/l)
Oakley (Ivy Down)	14	35.61	24.20 – 45.80	35 (TIN)

<b>Wastewater Treatment Work</b>	<b>Number of samples</b>	<b>Total N: Mean (mg/l)</b>	<b>Total N: Range (mg/l)</b>	<b>Nutrient Calculator Value (Permit Type*)</b>
Overton	7	37.87	27.10 – 45.90	27
Peel Common	20	5.89	1.11 – 8.61	9 (TN)
Pennington	28	6.39	2.86 – 10.50	9.5 (TN)
Petersfield	15	14.49	1.00 – 20.70	27
Portswood	8	23.93	2.96 – 40.90	27
Redlynch	13	16.89	8.98 – 25.10	27
Romsey Combined	20	21.76	8.18 – 41.30	27
Roud	9	19.31	12.60 – 26.40	27
Sandown	7	17.12	9.22 – 24.50	27
Slowhill Copse	13	8.35	4.86 – 13.50	14 (TN)
South Harting	13	13.39	5.61 – 30.80	27
Thornham	13	7.70	5.30 – 9.48	10 (TN)
Whitchurch	13	21.88	17.30 – 25.50	32 (TIN)
Woolston	14	6.98	5.52 – 9.91	15 (TN)

\*TN = Total Nitrogen

TIN = Total Inorganic Nitrogen