



Nutrient neutrality in the planning system – getting back on track

IEMA

Transforming the world
to sustainability

Contents

Introduction	3
Why nutrient neutrality is important	3
Nutrient neutrality legislation and regulation	4
Issues but no solution?	4
Who is affected by nutrient neutrality	4
Nutrient neutrality: the methodological approach	4
Dutch nitrogen case	5
Mitigation in practice	5
Summary of approach to implementing nutrient neutrality	6
Current legislative and policy outlook	7
Why keep the legislation?	7
Conclusion	8



Introduction

In 2023, there was a threat that nutrient neutrality in England, with regard to protected sites, might be abandoned through amendments to the UK Government's Levelling-up and Regeneration Bill. In the end, the legislation passed with the amendments having been voted down in the House of Lords.

With these events having taken place, now seems like an appropriate time to reaffirm the important role that nutrient neutrality regulations play in protecting waterways in England.

This paper aims to get the reader up to speed on nutrient neutrality. It sets out the history of the regulations, confirms the legislative and policy landscape, reminds us what nutrient neutrality is and why it's important, and gives examples for what it looks like in practice.

This paper is suitable for professionals working in development, local authorities, ecology and wastewater, and all stakeholders who want reassurance that they're doing the right thing around nutrient neutrality.

Why nutrient neutrality is important

Nationally, watercourses are heavily degraded. Water quality issues are widespread with just 14% of rivers in England having a 'good' ecological status¹. It has recently been reported that only 6% of Britain's rivers are due to be in a 'healthy' state by 2027².

The current network of sewage treatment plants seems to be at capacity and alternative nature-based solutions are not yet fully developed to mitigate for additional demands on the network.

Nutrient neutrality legislation was introduced in 2018 to address river pollution issues associated with adverse effects on national and international (formerly European) sites in sensitive catchments. It can address pollution resulting from residential development and associated sewage and runoff.



Increased phosphorous and nitrates resulting from development cause decreased levels of dissolved oxygen, which can lead to a decline in the diversity of fish and aquatic life³. Increased nitrate levels compound the already problematic issue of invasive non-native species such as floating pennywort and New Zealand pygmyweed. Left unchecked, these invasive species further impact aquatic ecosystems and can cause issues for commercial and recreational use of our rivers and streams.

Neutrality

It is important to note that the legislation in England requires neutrality, i.e. for a development not to make pollution worse. It does not require an improvement or gain.

¹ publications.parliament.uk/pa/cm5802/cmselect/cmenvaud/74/report.html

² inews.co.uk/news/save-our-rivers-uk-firms-pump-raw-sewage-2143269

³ wiltshirewildlife.org/blog/staff/nutrient-neutrality

Nutrient neutrality legislation and regulation

Nutrient neutrality is underpinned by the Habitats Regulations, which protect important sites. Competent authorities such as local planning authorities (LPAs) must assess the environmental impact of planning applications and local plans, which may affect these sites. LPAs can only approve development if they are certain it will not have an adverse effect on the site.

Following a ruling by the EU in 2019⁴, Natural England had advised 32 LPAs that, where protected sites are in unfavourable condition due to excess nutrients, development should only go ahead if it will not cause additional pollution to sites (i.e. only if a scheme could demonstrate nutrient neutrality). In March 2022, Natural England advised a further 42 LPAs that their areas are covered by this ruling.

Issues but no solution?

The result of Natural England's advice was that many developments were reported as being delayed by the new nutrient neutrality regulations. However, the issue wasn't necessarily the requirement to demonstrate neutrality but the perceived lack of availability of mitigation options in some areas. On-site mitigation options were only available in some parts of the country (as described below), while similarly there were off-site mitigation schemes only available in some parts of the country.

Whilst law around nutrient neutrality has emerged in response to significant effects on national and international (formerly European) sites, Environment Agency data⁵ demonstrates nutrient enrichment from diffuse pollution is a widespread issue affecting non-designated watercourses in rural and urban locations. Reasons for not achieving good ecological status include: poor soil management, private sewage treatment, urban development, land and transport drainage, and barriers to ecological connectivity (from industry).

Who is affected by nutrient neutrality

Any development in a protected area will be checked for an impact on the protected site. The main (but not the only) applications that will need mitigation are those for:

- residential developments;
- care homes;
- hotels; or
- anything with overnight accommodation.

Nutrient neutrality: the methodological approach

Habitats Regulations Assessments⁶ (HRAs) of new residential developments need to consider whether nutrient loading, for example an increase in nitrates and phosphates, will result in likely significant effects (LSEs) on a nationally or internationally designated site. If an HRA finds LSEs due to nutrient loading, the appropriate assessment (stage two of an HRA) will need to consider whether this nutrient load needs to be mitigated to remove adverse effects on a designated site.

The first step (stage one assessment of likely significant effects) in an HRA involving nutrient neutrality is understanding if a residential development will require mitigation and if so, the amount of nutrients that require mitigating on an annual basis.

To understand the amount of nutrients a new residential development will create, a nutrient budget for the development is required.

Natural England has published a methodology⁷ to help developers achieve nutrient neutrality through mitigation measures, for example creation of wetlands. Appropriate mitigation can be informed by use of a catchment-based nutrient calculator to determine the level of mitigation required. This is based on occupancy rates, which can be provided by the LPA. Mitigation can be both site-based or strategic, on/off-site or through a credit-based contribution.

⁴ eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:62017CA0293

⁵ environment.data.gov.uk/catchment-planning

⁶ gov.uk/guidance/habitats-regulations-assessments-protecting-a-european-site

⁷ publications.naturalengland.org.uk/publication/5143927928913920

Mitigation examples include:

- creation of a wetland on-site;
- creation of a wetland off-site;
- financial contribution to a strategic wetland, in other words, offsetting nutrient loading to a large wetland mitigation scheme; and
- purchase of nutrient credits.

If calculations find a change in your nutrient budget, then Natural England can be contacted to buy nutrient credits. Credit rounds⁸ have been published where a developer can purchase enough credits to offset any housing unit deficit based on the amount of nutrient loading predicted.

If a proposed development will have an increased nutrient loading on a designated site (for example, the Solent, Somerset Levels, Norfolk Broads or Teesmouth) without providing mitigation, then permission will be refused.

Dutch nitrogen case

Nutrient neutrality stems from a legal case in the Court of Justice of the EU in 2018 (known as the Dutch nitrogen case). This resulted in the ruling that measures to mitigate the impact of nutrients in water bodies can no longer be postponed into the future. Natural England has since advised competent authorities (i.e. local authorities) that mitigation measures forming part of an HRA must demonstrate no adverse effect 'beyond reasonable scientific doubt'. The benefits of the mitigation measures must also be 'certain at the time of the assessment' before planning permission can be given. Any development that will have an adverse effect will need to provide suitable mitigation. This means that until mitigation is available, development in the areas affected will need to be considered carefully.

This affects areas where Natural England has advised LPAs where national and international sites (formerly European sites) are in unfavourable condition due to excessive nutrient levels. The Planning Advisory Service has a sensitive catchment map showing areas where nutrient neutrality is a significant issue.

Source: Planning Advisory Service nutrient neutrality FAQs⁹

Mitigation in practice

Nutrient neutrality covers habitat sites (i.e. sites protected under the Habitats Regulations) comprising freshwater habitats and estuaries hydrologically connected to catchments. Nutrients entering the catchment are therefore likely to reach the site and therefore the entirety of such catchments fall within the scope of nutrient neutrality. All developments within these catchments connected to habitat sites in unfavourable conditions (due to increased nutrient levels) are required to prove neutrality or provide mitigation.

Mitigation needs to be localised to the catchment in which the development is impacting to ensure that all sites individually avoid increases in nutrients. Further, when nutrient discharge is directed to the habitat site (where the nutrients are discharged within the boundary of the habitat site), the mitigation measures must be upstream to ensure that nutrients are removed prior to the discharge. This means there is no net increase.

When the nutrient discharge is indirect (where the nutrients are discharged outside the boundary of the habitat site but upstream within the catchment), the mitigation measures can be either upstream or downstream of this location. This is if the offsetting is provided before the point at which the nutrients from the development impact the habitat site¹⁰.

This can often make mitigation complicated. For example, see Figure 1 on the next page for a map of the three river catchments affecting the Somerset Levels and Moors Ramsar Site, and the River Brue, River Parrett and River Tone catchments.

A development in Castle Cary on the border of the River Brue catchment and the River Parrett catchment may be positioned so that the surface runoff on-site is within the River Brue catchment. The wastewater produced is taken by a wastewater treatment works and discharged a mile away within the River Parrett catchment, thus requiring separate mitigation within each catchment. Fortunately, in this example, neither the surface runoff nor the wastewater is being discharged directly within the Ramsar Site boundaries, so mitigation can be implemented either upstream or downstream of the discharge points.

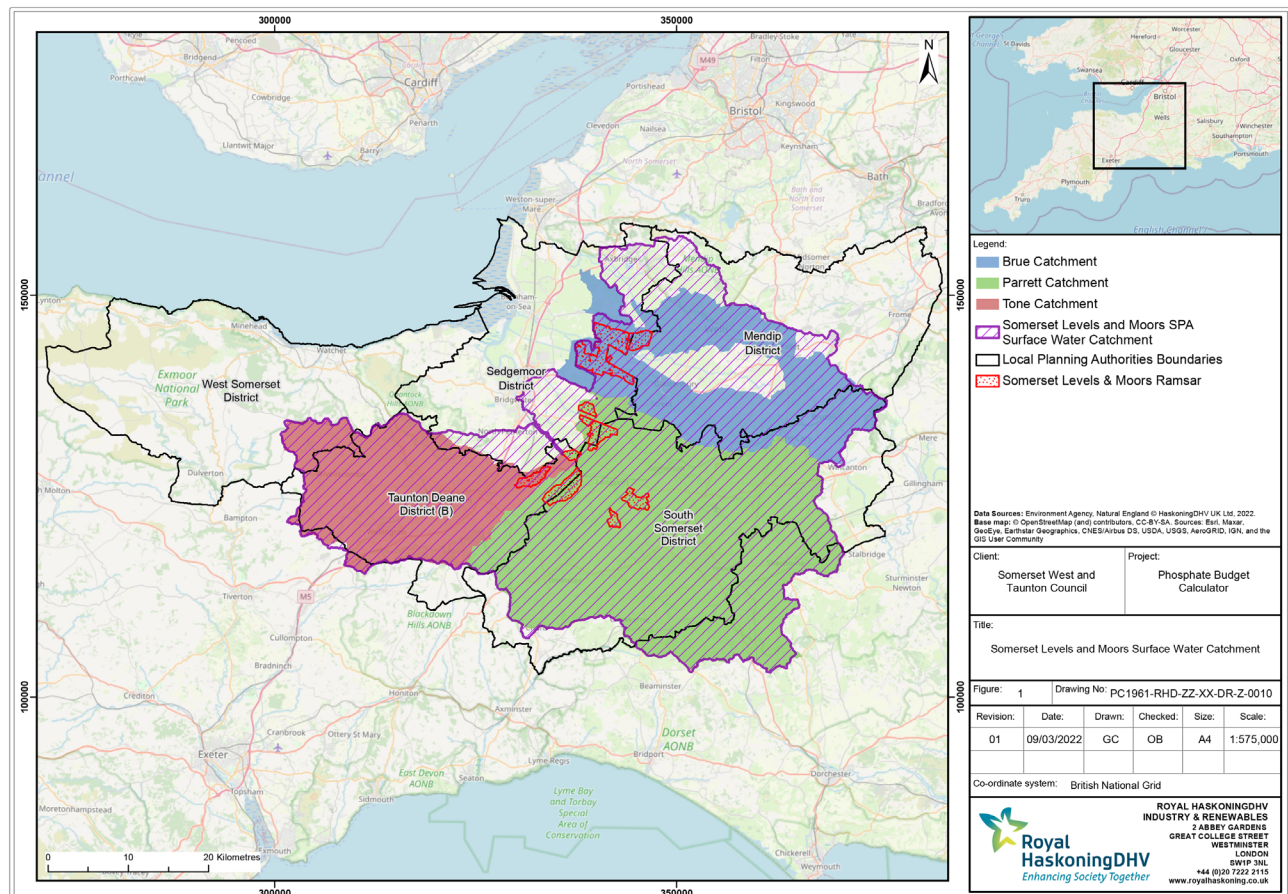
⁸ webarchive.nationalarchives.gov.uk/ukgwa/20230901101610/https://publications.naturalengland.org.uk/publication/6248597523005440

⁹ local.gov.uk/pas/topics/environment/nutrient-neutrality-and-planning-system/faqs

¹⁰ dorsetcouncil.gov.uk/documents/35024/2469021/NN+principles+external+final.pdf/419d943c-6817-8fcc-7981-83a5fc049d99

Figure 1

The three river catchments affecting the Somerset Levels and Moors Ramsar Site (Somerset Council and Royal HaskoningDHV)



Summary of approach to implementing nutrient neutrality

- 1 Determine if the proposed development site is in an affected area.
- 2 Calculate the site's nutrient budget using an appropriate calculator (either Natural England or the local authority's).
- 3 Develop a mitigation scheme so that neutrality can be demonstrated and planning permission granted.

Note: some local authorities already have localised schemes (for example, the Solent). A national scheme is in development but in lieu of this, on- and off-site options can be developed.

The spatial consideration and thus complexity to providing nutrient neutrality mitigation has resulted in a variety of approaches being utilised.

Some developments – those located rurally without access to a mains wastewater treatment works and therefore discharging wastewater locally to the ground – may not need to provide mitigation if they are able to instead evidence that the resultant nutrient discharge to the catchment remains within the acceptable thresholds for small discharges to the ground proposed by Natural England¹¹. Requirements include creating a drainage field in a suitable area located sufficiently far away from the habitats site, surface water features and any other discharges to the ground. The reality is that few developments will pass these thresholds.

Developments that exceed the thresholds for small discharges to the ground must instead provide mitigation. For example, mitigation for an application for a new farm shed that would increase nutrient discharge from increased cattle numbers could include fallowing land. This would provide short-term mitigation by reducing agricultural nutrient discharge whilst creating treatment wetlands, which will then become the long-term mitigation option.

An extension to increase occupancy at a house with an existing septic tank could provide mitigation by replacing the septic tank (with its inefficient nutrient removal) with a package treatment plant (PTP). The PTP can efficiently remove nutrients from wastewater, reducing the total nutrient discharge of the house to levels below that of predevelopment. Modern PTPs can have phosphorous and nitrate removal levels of 80% to 90% or more.

Large residential schemes might consider purchasing nutrient credits from off-site habitat creation schemes, which could, depending on the details of the development proposals and credit scheme, be in combination with off-site biodiversity net gain. The IEMA Biodiversity and Natural Capital (BANC) Network paper, 'Stacking and Bundling in the Finance of Nature Markets', could be of help here¹².

Current legislative and policy outlook

In September 2023, there was a period of uncertainty because of proposals to withdraw the Nutrient Mitigation Scheme¹³ through an amendment to the Levelling-up and Regeneration Bill. There was much confusion around this time, partially because of mainstream press reporting that nutrient legislation was to blame for delays in residential planning applications, whilst the number of new homes affected was only a small proportion of the new homes needed. However, the House of Lords rejected the amendment at the end of 2023 and the legislation achieved assent.

Why keep the legislation?

In September 2023, IEMA supported a letter¹⁴ by the Environmental Policy Forum to then Secretary of State for Levelling Up, Housing and Communities, and Secretary of State for Environment, Food and Rural Affairs, outlining the danger of withdrawing the Nutrient Mitigation Scheme. The letter noted:

- the scheme would constitute a regression in law at a time of nature and water quality decline, reducing the level of environmental protection;
- it would undermine the delivery of various government environmental commitments, including the Environment Act (2021), the Environmental Improvement Plan and the UN Global Biodiversity Framework; and
- there was a lack of consultation with experts who could supply knowledge and experience of delivering nutrient neutrality requirements.

¹¹ publications.naturalengland.org.uk/publication/6248597523005440

¹² iema.net/resources/blog/2023/10/06/new-iema-paper-on-stacking-and-bundling-in-nature

¹³ publications.naturalengland.org.uk/publication/6248597523005440

¹⁴ https://a182be4d-31b2-4e5d-81bf-6b9a3f5dc73a.usrfiles.com/ugd/a182be_e98a39f262ed47da8658c33b3033ac5a.pdf (usrfiles.com)

Since then, the government has renewed commitments to tackle nutrient pollution. In an announcement on 20 December 2023¹⁵, the UK Government confirmed that Natural England will continue to deliver the £30 million Nutrient Mitigation Scheme in accordance with the Environment Secretary's direction of 28 July 2022. It operates on the principle of complementing locally- and private-led schemes, thereby providing developers with a range of mitigation options.

Furthermore, to boost the supply of mitigation, the £110 million Local Nutrient Mitigation Fund will enable LPAs to increase the supply of mitigation options, with the funding recycled locally.

In addition to the requirements placed on developers, new duties on water companies came into effect on 26 January 2024. These duties require water companies to upgrade wastewater treatment works in designated areas by 2030.

The announcement by the government confirmed that it remains committed to tackling nutrient pollution. The following measures also all remain government policy and will be progressed:

- exploring further work on developing Protected Sites Strategies in nutrient neutrality catchments, where these can help deliver site restoration and unlock housing delivery;
- investing £200 million in grants for improved slurry storage infrastructure and equipment over the agricultural transition period;
- committing £25 million to a new nutrient management scheme within the Farming Innovation Programme to help farmers manage plant and soil nutrients;
- consulting in 2024 on modernising fertiliser product standards to support increased use of organic and recycled nutrients;
- introducing payment premiums into environmental land management schemes in 2024. This will accelerate take-up of certain high-priority options, including those providing benefits for water quality;
- continuing to conduct at least 4,000 risk-based inspections on farms each year, making sure that slurry and other pollutants are being handled in a way that minimises water pollution; and
- consulting on mandating sustainable drainage solutions for relevant new developments, subject to a threshold. This will reduce urban run-off and so reduce pressure on storm overflows as well as flood risk.

In addition, the Department for Environment, Food and Rural Affairs launched a further round of the Natural Environment Investment Readiness Fund, which opened for applications on 11 December 2023. The fund helps farmers address barriers to accessing private investment to help nature's recovery – including through nutrient mitigation projects.

Conclusion

Government progress on nutrient neutrality is key to halting the loss of biodiversity, along with meeting the government's own commitments in the Environment Act (2021) and the UN Global Biodiversity Framework. Decreases in nutrient pollution are important in protecting nature, not just in the areas where development or other types of nutrient pollution are happening but across catchments.

Rather than see nutrient neutrality abandoned or watered down through amendments similar to that proposed in the Levelling-up and Regeneration Bill before it achieved Royal Assent, there could be stronger policies and requirements around nutrient pollution, perhaps even mitigation plus environmental improvement or gain.

There must be more support for developers and other water-quality stakeholders in terms of increased opportunities to mitigate nutrients on-site and off-site, with more sites available more widely across England. Hopefully, availability will improve as a result of more government funding and if the government can commit to providing more and better information around what good looks like across protected sites, farms, land management, development, water quality and sustainable drainage.



¹⁵ gov.uk/guidance/nutrient-neutrality-update

Further information

For more information, please email:

Lesley Wilson

Policy and Engagement Lead
Biodiversity and Natural Capital
policy@iema.net

This paper was written for IEMA by:

Andrew Clark, PIEMA MCIEEM, Principal Ecologist at Merseyside Environmental Advisory Service and a member of the IEMA BANC Network Steering Group.

Saul Ridley, Ecologist and Natural Capital Consultant at Greengage Environmental Limited.

Faye Durkin, Head of Ecology and Natural Capital at Greengage Environmental Limited and Co-Chair of the IEMA BANC Network Steering Group.

£59

About IEMA

iema.net

We are the Institute of Environmental Management and Assessment (IEMA).

We are the global professional body for over 21,000 individuals and 300 organisations working, studying or interested in the environment and sustainability.

We are the professional organisation at the centre of the sustainability agenda, connecting business and individuals across industries, sectors and borders.

We also help and support public and private sector organisations, governments and regulators to do the right thing when it comes to environment and sustainability related initiatives, challenges and opportunities.

We work to influence public policy on environment and sustainability matters. We do this by drawing on the insights and experience of our members to ensure that what happens in practice influences the development of government policy, legislation, regulations and standards.



Transforming the world
to sustainability