

Nutrient Neutrality – Detailed Notes

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1. KEY PRINCIPLES

Definition: "Nutrient Neutrality"

Nutrient neutrality is the outcome achieved when a specific land use or development within the catchment areas of vulnerable watercourses does not result in an increase in phosphate and nitrate levels in those watercourses beyond pre-development levels.

The Problem: Nutrient Pollution of Water

In freshwater habitats, estuaries and other water bodies, excess nutrients (mainly nitrates and phosphates) cause increased growth of plants and algae – a process known as 'eutrophication'. This removes oxygen from the water, which disrupts healthy ecosystems and impacts wildlife. Where this occurs, sites are said to have "unfavourable conservation status".¹ The sources of excess nutrients are site-specific, but the most significant are agricultural run-off (fertilisers and animal waste) and wastewater (e.g. from sewage treatment works and industrial processes).

Effect on Housing Development

Though a comparatively small source of harmful (excess) nutrients, wastewater from new housing developments inevitably increases the nutrient load in natural water courses. Recent developments in environment and planning law have established that any increase in overall nutrient pollution is intolerable in sites with important species or habitats. In such sites, it is now a prerequisite for planning permission that new developments are 'nutrient neutral'.

This can be achieved by designing developments alongside suitable mitigation measures; however these are often expensive and technically difficult. One effect of these requirements has been to dramatically inhibit residential developments.

Implications for Planning Authorities and Developers

To date, Natural England has advised 74 Local Planning Authorities (LPAs) that their catchments are affected by its advice on nutrient neutrality. Consequently, the Conservation of Habitats and Species Regulations 2017 (as amended) ("**Habitats Regulations**") require the LPAs to undertake detailed assessments of all proposed changes in land use or development.

The effect on housing developers is that they must calculate the nutrient burden of proposed developments in these areas and, if necessary, adopt appropriate mitigation measures.

2. JUDICIAL AND LEGISLATIVE FRAMEWORK

The Habitats Regulations

Many internationally important sites in England and Wales are protected under the Habitats Regulations. These are called "Habitats Sites" in the National Planning Policy Framework (NPPF).²

When "competent authorities" (planning decision makers, often LPAs or the Environment Agency) assess projects and planning applications, they are required to consider whether Habitats Sites will be significantly affected. If significant effects cannot be ruled out, the competent authority, in consultation with Natural England, performs a Habitats Regulations Assessment ("HRA") of likely damages and potential mitigation. If damages cannot be reduced or mitigated, planning permission will be refused.

¹ Council Directive 92/43/EEC (conservation of natural habitats etc.) Article 1(e).

² The EU 'Habitats Directive' (Directive 92/43/EEC) requires EU Member States to prepare lists of important sites to be protected for species and habitats. These sites, designated 'Sites of Community Importance' or 'Special Areas of Conservation', were dubbed "European Sites" in Regulation 8 of the Habitats Regulations – the UK statute that implemented the Habitats Directive. The term in common use, "Habitats Sites", comes from the NPPF, and includes these and other protected areas like Ramsar sites (internationally important wetlands).

The Dutch Nitrogen Case

In 2018, a landmark ruling of the European Court of Justice ("Dutch N")³ clarified its expectations regarding the assessment of proposed projects affecting protected sites in EU Member States.⁴

The ruling established that:

- national legislation can authorise developments on the basis of an "appropriate assessment" only if the assessment leaves no reasonable scientific doubt that the project will not adversely affect the conservation site; and
- such assessments must discount any proposed mitigation measures:
 - a. that do not form part of the project itself; and/or
 - b. the benefits of which are not certain at the time of assessment.

This set the precedent that any post-development (net) increase in nutrients at protected sites is unlawful; and that any necessary mitigation must be in place prior to the grant of planning permission. Effectively, it requires nutrient neutrality from potential developers of protected sites, as standard.

Natural England – Guidance

After the ruling, and in light of the amended Habitats Regulations, Natural England issued guidance to 32 LPA responsible for areas including Habitats Sites with an unfavourable conservation status. The guidance broadly mirrored the requirements of the Dutch N case, emphasising the risk of permitting changes in land use and developments in nutrient vulnerable areas, and advocating a nutrient neutral approach.

Where water catchments and protected sites were identified in Natural England's guidance, the relevant LPAs were advised that planning permission should only be granted for developments in these areas if an HRA demonstrated a neutral impact on nutrient levels in the catchment.⁵ If a development would increase nutrient levels, mitigation was required.

Updated Guidance

On 16 March 2022, Natural England updated its guidance, and extended it to a further 42 LPAs. The updated (and current) guidance aims to allow competent authorities and developers to identify the level of mitigation required to offset additional nutrient pollution expected from a particular project.

The practical effect of Natural England's guidance for planning authorities and developers is considered in parts 4 and 5, respectively.

Developments affected by Natural England's Guidance

The guidance relates to all developments that would cause an increase in population served by a wastewater system or catchment area. The Planning Advisory Service clarifies that this relates particularly to developments that result in "additional overnight accommodation":

- Clear examples include new homes, student accommodation and care homes; most tourism infrastructure (which serves people from outside the catchment area); any developments connected to water mains; and off-grid treatment works that discharge into watercourses.
- Depending on the circumstances, HMOs may also be affected because they increase building occupancy, but replacement dwellings are generally excluded.

³ Mobilisation for the Environment UA v College van Gedeputeerde (C-293/17) (ECJ).

⁴ Rulings of the ECJ are not binding on UK courts but are highly persuasive, and have broadly been followed.

⁵ This also applied to post-permission approvals, e.g. reserved matters approvals or discharges of conditions.

- Generally, the guidance applies to agricultural developments that intensify use, and therefore increase nutrient loads. However, due to the variation in nature and scale of agricultural infrastructure and industrial applications, these should be considered on a case-by-case basis.
- Commercial developments, offices, schools and retail are usually exempt because people are assumed to work and live in the same catchment area.
- Applications for other types of development will be considered on their individual merits, and should be discussed with Natural England to clarify whether an HRA is required.

Industry Response

Generally, Natural England's guidance was not well received in the house-building industry. In some regions it led to moratoriums on new housing developments and other overnight accommodation that would discharge into river catchments. The Home Builders Federation has estimated that the development of up to 100,000 homes is currently delayed.⁶

A point to note however is that the Court of Appeal confirmed the legality of Natural England's guidance in *Wyatt v Fareham Borough Council*. We discuss the case [here](#).

3. GOVERNMENT PROPOSALS TO ADDRESS THE HOUSE BUILDING PROBLEM

In response to calls from developers to reduce the nutrient neutrality burden, the government made the following proposals.

Upgrading Water Treatment Works

Presently, water treatment works often cannot remove sufficient nutrients from wastewater. The government therefore proposes amending the Levelling Up and Regeneration Bill to require water companies to upgrade wastewater treatment works to meet acceptable nutrient effluent limits (10mg/l for nitrogen, 0.25mg/l for phosphorus) by 01 April 2030.

If these improvements are factored into Habitats Regulation assessments, as anticipated, this will, at least, reduce the need for additional mitigation. Our back of an envelope calculations would indicate a reduced mitigation requirement of about 50%. Effectively, this would shift responsibility for nutrient neutrality from housing developers to water companies. Still, the timeframe will offer little comfort to developers who need to clear the nutrient neutrality hurdle now.

Nutrient Credits

Since Natural England's initial guidance developers have sometimes sought to maintain nutrient neutrality by striking deals with private landowners to take land out of agricultural production. The resulting reduction in fertiliser application and reduced nutrient run off creates an offset of nitrate and phosphate credits ("nutrient credits") that can be ascribed to their developments.

The government has confirmed that such arrangements can continue in effect, alongside a new Nutrient Mitigation Scheme, to ensure a competitive nutrient credit market place.

For more on environmental credit schemes, see part 5, below.

The Nutrient Mitigation Scheme

In 2022, Defra provided funding to establish wetlands and woodlands that generate "Nutrient Mitigation Credits" (accredited by Natural England) that developers can purchase to offset nutrient pollution from housing development. The scheme was launched on 31 March 2023 in the Tees catchment, and (as of August 2023) has allowed 1,461 houses to be built.⁷

⁶ Steve Turner, 'New report finds Natural England significantly overestimates the impact of new housing development on nutrient pollution' (*Home Builders Federation*, 31 May 2022).

⁷ Built Environment Committee, 'Corrected oral evidence: The impact of environmental regulations on development' (*House of Lords*, 11 July 2023) 5.

4. PRACTICAL IMPLICATIONS FOR PLANNING AUTHORITIES

To date, Natural England has advised 74 LPAs that their catchments are affected by Natural England's advice on nutrient neutrality. Consequently, the Habitats Regulations require the LPAs to undertake HRAs of all proposed changes in land use or development in these areas.

This is to ascertain whether there will be any adverse effects due to the project's location, size or nature. Where adverse effects are found, mitigation solutions will be necessary.

Habitat Regulations Assessments (HRAs)

The 'Appropriate Assessment' stage of the HRA must be carried out before an LPA grants planning permission. Natural England advises that the LPA must have practical certainty that the nutrient neutrality measures relied on in an Appropriate Assessment will be implemented and in place at the relevant time, when the Appropriate Assessment is undertaken, e.g. secured and funded for the lifetime of the development's effects.

As demonstrated by the recent case of *C G Fry v Secretary of State* [2023] ("Fry"), developments with outline consents, and existing schemes, are caught. This includes LPAs discharging planning conditions, approving reserved matters, or granting minor amendments to existing consents.

C G Fry v Secretary of State [2023]

The Claimant in Fry had been granted outline planning permission subject to various conditions, none of which related to nutrient neutrality. By the time the Claimant sought to discharge these conditions, Natural England had issued its guidance, leading the Somerset LPA to withhold approval on the basis that an Appropriate Assessment was required.

The Claimant's initial appeal of this decision was dismissed, so the Claimant brought the 2023 claim for statutory review. The High Court found that the Habitats Regulations and the Habitats Directive mandate that an Appropriate Assessment must be undertaken before a project is consented, regardless of the stage it has reached. This is because the discharge of pre-commencement conditions is a necessary step in the implementation of development.

The position may yet change because the Claimant has been granted permission to appeal the High Court's decision to the Supreme Court. For now though, the decision in Fry affirms that developers must consider the impact of their developments on Habitats Sites at all stages of the planning process, even after outline planning permission has been granted.

5. PRACTICAL IMPLICATIONS FOR DEVELOPERS

Where developments would fail to meet the requirements of an HRA, developers may be asked to employ appropriate mitigation measures. To determine whether this will be necessary, housing developers are encouraged to calculate the nutrient burden of proposed developments.

Calculating the Nutrient Burden of a Development

Natural England's 'National Generic Nutrient Neutrality Methodology' involves a four-stage process for determining a nutrient budget for a given development:⁸

1. Calculate the proposed development's total nitrogen/phosphate that would be discharged into the catchment;
2. Calculate existing (pre-development) nitrogen/phosphate from the current land use of the development site;

⁸ The updated guidance aims to make this methodology more site-specific by accounting for: operational catchment, soil drainage type, average annual rainfall, and whether the site is within a Nitrate Vulnerable Zone.

3. Calculate nitrogen/phosphate for the non-built land uses proposed for the development site, such as public open space; and
4. Calculate the change in total nitrogen/phosphate due to the development: $(A - B \pm C)$ including the 20% precautionary buffer.

If the result of Stage 4 is positive, mitigation is required; if it is negative, mitigation is not required.

Each LPA has been provided with catchment-specific calculators to support a consistent approach to the assessment of nutrient neutrality across all affected catchments in England.

Mitigation Measures

Where mitigation measures are necessary to achieve nutrient neutrality, developers should consider whether on-site or off-site mitigation is more appropriate for the development.

On-site mitigation

Nutrient neutrality can be achieved on-site by creating large-scale wetlands, woodlands and fallow habitats; however, this requires significant open space provision within the development boundary.

Solutions need to be available and work in perpetuity, or for as long as the development is required, which is a heavy burden on developers.

Packaged private water treatment plants provide one solution, but these require material investment in front end infrastructure before other development can take place.

Off-site mitigation (nutrient credits)

Off-site options are emerging as more a popular mitigation solution, and one approach is to purchase nutrient 'credits'. Third-party landowners are beginning to take agricultural land out of production and change the land use to woodland, heathland, saltmarsh, wetland, or conservation grassland to generate credits. For example, agricultural land used for poultry has a nitrogen leaching rate of 70.7 kgN/ha/yr, whereas woodland has a leaching rate of 5 kgN/ha/yr, creating a healthy nutrient deficit, which can be used to offset the effects of development.

Natural England advises that mitigation land is maintained for a minimum of 80-125 years. This significant obligation means that many developers may wish to buy credits from third-party landowners, in a one-time transaction, allowing the developers to move on without the need to maintain the habitat themselves.

Landowners are exploring the ability to benefit from several positive environmental outcomes on the same land. This may include the receipt of both public money, in the form of the new Environmental Land Management Scheme (ELMS), and private funds, such as those arising from nutrient neutrality. This "stacking" of environmental services on land is of obvious financial and environmental importance to landowners. This topic is explored in greater detail in the BNG notes.

Unlike the new mandatory biodiversity net gain requirement, Natural England has called for mitigation sites to be provided within the same local catchment area as the development. This greatly reduces the potential to find off-site land to deliver solutions at a viable cost.

LPAs are considering, or in some cases are already implementing, similar nutrient neutrality credit schemes of their own. For example, Havant Borough Council is the first LPA to develop its own nutrient neutrality scheme. Under this scheme, the proceeds of the credits go towards the creation of large-scale wetlands, woodlands and meadows to mitigate against the effect of development.

5. RECENT DEVELOPMENTS – GOVT BID TO REMOVE NUTRIENT NEUTRALITY

On 29 August 2023, the government tabled amendments to the Levelling Up and Regeneration Bill intended to change the Habitats Regulations:

- a) to require competent authorities (LPAs), when determining planning applications and other approvals, to assume that nutrients in urban wastewater from such developments, will not adversely affect a relevant site; and
- b) to provide that potentially adverse effects on a relevant site caused by nutrients in urban wastewater are not a ground for the competent authority to determine that an appropriate assessment is required, or that potential development will adversely affect the integrity of the relevant site or otherwise have negative implications for the site.

The effect of these amendments would have been to remove the requirement that new developments be nutrient neutral. On 13 September 2023, however, the Bill was defeated by the Lords, creating some uncertainty in the housebuilding industry about how the housing logjam will be resolved.

6. OUTLOOK

Though the government's proposed amendments to the LURB were rejected, its recent statement in support of the Bill sets out wider goals to alleviate the problem of house building:

- Doubling investment in Natural England's Nutrient Mitigation Scheme;
- Working with the house building industry to ensure that larger developers fairly contribute to the efforts to tackle nutrient pollution;
- Accelerating work on full site restoration through work on new Protected Site Strategies, to set protected sites on the path to recovery in the catchments with the highest housing demand;
- Reducing runoff from farms, by:
 - a. Conducting 4,000 farm inspections a year, to ensure that slurry and other sources of nutrients are being handled in a way that minimises pollution of the water environment;
 - b. Investing £200m in grants for improved slurry storage infrastructure and precision spreading equipment;
 - c. Investing £25 million to drive innovation to help farmers manage plant and soil nutrients;
 - d. Consulting this year on modernising our fertiliser product standards to drive increased use of organic and recycled nutrients;
- Introducing (from 2024) payment premiums into environmental land management schemes to accelerate take up of high priority options, including those benefitting water quality;
- Consulting on new requirements for Sustainable Drainage Solutions to reduce pressure on storm overflows from new homes and flood risk; and
- Publishing a River Wye action plan this autumn to tackle the unique issues in Herefordshire.

7. FURTHER RECOMMENDED READING

- Natural England: [Nutrient Neutrality and Nutrient Mitigation](#)
- Planning Advisory Service: [Nutrient Neutrality and the Planning System](#)
- Planning Advisory Service: [Nutrient Neutrality FAQs](#)
- Defra: [Habitats Regulations Assessments: Protecting a European Site](#)