Nutrient Neutrality - Phosphates

October 2023

Tackling nutrient pollution in freshwater rivers and estuaries is becoming an increasing focus for the government as they are home to a number of sensitive habitats. According to the Environment Agency, only 14% of English rivers in 2022 were in good ecological status, down from 17% in 2016.

In 2022, Natural England more than doubled the number of local planning authorities (LPAs) it advises on nutrient neutrality to 74, covering 27 water catchments in unfavourable status. If any change in land use or new development goes through one of these LPAs in a protected catchment area, it'll be scrutinised against the nutrient neutrality policy.

Whether you're a developer or a landowner, this guide provides an overview of what you need to know regarding phosphate offsetting in a nutrient neutrality area.

What is nutrient neutrality?

Nutrient neutrality is a strategy that means new development in specific areas do not result in an increase in phosphate and nitrate levels in local watercourses beyond current levels. For a planning application to receive consent from the LPA, these developments need to prove they will be nutrient neutral. Nitrate neutrality is specific to saltwater environments and phosphate neutrality is specific to freshwater environments.

Why are phosphates a problem?

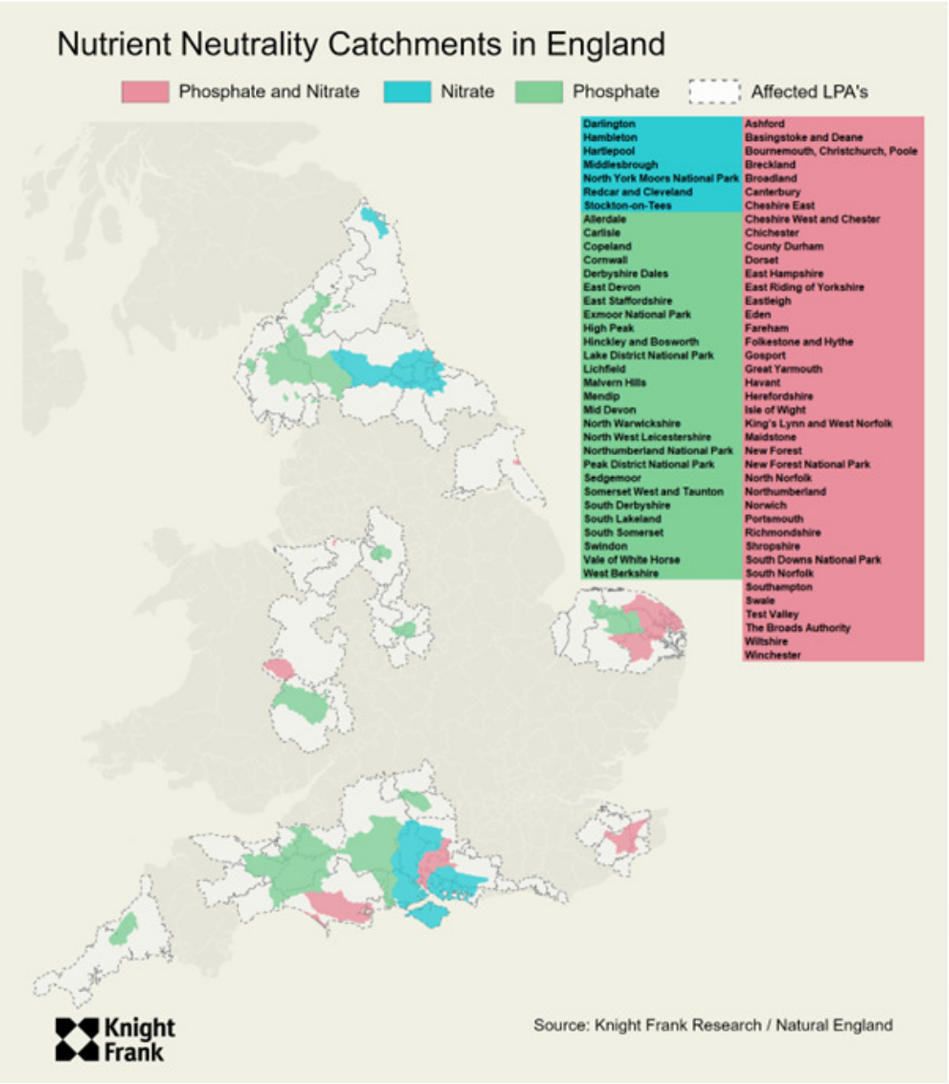
Natural England have raised concerns about the continued deterioration of the water quality in Special Areas of Conservation (SACs) and Special Protected Areas (SPAs) caused by phosphates and other nutrients entering the water system. The continued deterioration is harming the ecosystem.

Phosphates enter the water systems from use of surrounding land. Agricultural sources such as the use of fertilisers and wastewater from housing result in the increase of phosphates. There is also a significant proportion from unknown sources.

When phosphates entering the water environment reach a certain level this causes eutrophication - this is the dense growth of algae which adversely affects the balance of flora and invertebrates. Green algae mats grow in the water, and deplete the oxygen needed by other plants and animals.

The Conservation of Habitats and Species Regulations 2017 (HRs) sets out strict systems for the protection of European sites and European Protected species. Therefore, LPAs have to ensure they only grant consents that comply with Natural England's advice or face the possibility of legal challenge.

Location of the local planning authorities impacted by nutrient neutrality rules, either nitrate or phosphate only or both.



What type of sites will need to implement phosphate offsetting?

Phosphate offsetting will be required for all developments and properties where people can stay overnight. These include domestic properties, care homes, hotels for example. Developments must also fall within an SAC river catchment.

What are the offsetting requirements for developers?

Natural England require any development that will have an impact to ensure nutrient offsetting mitigation is in place for the duration of the effect. In the case of new housing that is taken to be in perpetuity (125 years +).

Developers need to estimate the amount of phosphates that will be discharged from their project into the environment. This estimation can be based on various factors, including the scale of the development, the nature of the activities, and any proposed wastewater treatment systems. The use of a phosphate budget will calculate the loading and where this is not phosphate neutral then other nutrient mitigation will be required.

Natural England will specify the requirements for phosphate reduction or mitigation. These requirements may include limits on phosphate discharges, percentage reductions, or other criteria that must be met by the developers.

Calculation of excess phosphate discharges: By comparing the projected phosphate discharges with the regulatory requirements, developers can determine if their project will result in excess phosphate discharges. If the discharges exceed the allowable limits or do not meet the specified reduction targets, offsetting may be required.

Where a development does not achieve nutrient neutrality then planning will not be granted.

How are phosphates offset?

Natural England have recommended certain approaches that LPAs have taken when affected by similar issues in relation to development, such as nutrient neutrality in the Solent. Their advice refers to other catchment solutions and a suggested method for calculating nutrient neutrality. They call this offsetting, and the calculation compares the difference between the proposed use applied for against the pre-development levels.

Natural England establishes a baseline for acceptable levels of phosphate pollution in a particular water body. They also set a cap on the total allowable phosphate load for that water body. This requires monitoring from an external party or the Environment Agency of the input and outputs to understand how much phosphate is being added to the water body.

Any nutrient loading must be offset in perpetuity via reducing phosphate discharges from other locations in the catchment.

What are phosphate credits?

Phosphate credits, also known as nutrient credits or nutrient trading credits, are a market-based mechanism used to manage and mitigate the impacts of phosphate pollution in water bodies. They are typically part of a nutrient trading program or offset system. 1 credit = 1kg of phosphate.

Phosphate credits allow entities to trade or exchange nutrient credits to meet regulatory requirements or voluntarily mitigate their own phosphate pollution.

Entities that are required to reduce their phosphate discharges or want to voluntarily mitigate their impact can implement nutrient reduction management plans or mitigation schemes that then require sign off from Natural England and LPAs.

Once certified, phosphate credits can be traded or sold to other entities that need additional credits to meet their regulatory requirements. The credits allow the buyer to offset their own phosphate discharges without directly implementing additional reduction measures. Credits can only be sold downstream of the mitigation project and must fall within the same river catchment.

Entities that are unable to meet the required phosphate reduction targets can purchase phosphate credits from the market to offset their excess discharges. This helps them achieve compliance with regulatory requirements.

What is the value of phosphate credits?

Prices are hard to source for phosphate credit trading, however the market is becoming more established as trading increases but will be dictated by supply and demand in an area. But, in Knight Frank's experience values for phosphate credits are between £55,000/kg - £75,000/kg paid to the landowner. This would be a one-off payment and not an annual income.

How will phosphate mitigation be monitored and enforced?

To enable any offsetting or credits to be sold on the open market, once Natural England have approved a scheme, the landowner/developer will need to enter into a voluntary section 106◆ with their LPA. This includes involvement from their ecology and legal teams to ensure the management plan and mitigation scheme can be enforced into perpetuity.

To trade any credits to in LPA's downstream of the mitigation site, landowners/developers will need to enter into section 33◆◆ agreements with those LPAs to confirm they are happy with the management plan and that the responsibilities of enforcement fall to the LPA the site is located in.

The LPA that the mitigation scheme is located in will be responsible for monitoring any mitigation scheme into perpetuity. They will be assisted by Natural England and the Environment Agency. If the development site is within a different LPA, the responsibility will still fall to the LPA that the mitigation scheme is located in. Further guidance on monitoring and enforcement is due to be published.

- Section 106 is a legal provision that allows local planning authorities in England and Wales to enter into agreements with developers to mitigate the impacts of their proposals.

- Section 33 is a type of covenant that is typically used to protect the character of a local area and is enforceable by local authorities in England and Wales.

Advice for landowners with large phosphate output

The development of an offsite market for phosphate credits offers an opportunity for landowners who can generate credits and are willing to take on a long-term land use change commitment. Natural England suggests that mitigation land is maintained into perpetuity, which would be for a minimum of 125 years. The mitigation site is also required to be located within the same river catchment area as the development. Proximity to the affected watercourse is advantageous, as the closer the offset site is to the watercourse, the faster the reduced leaching rate is actioned.

How can Knight Frank help businesses with Nutrient Neutrality?

Knight Frank is able to advise commercial and residential property developers, local authorities, investors and rural landowners of all types. We have a broad range of specialists who can advise and support clients with both nitrate and phosphate offsetting projects.

Key Contacts

Rural Consultancy

James Shepherd
james.shepherd@knightfrank.com

Jamie Evans-Freke
jamie.evans-freke@knightfrank.com

Steph Small
steph.small@knightfrank.com

Agri-Consultancy

Tom Heathcote
tom.heathcote@knightfrank.com

Development Partnerships

Charlie Dugdale
charles.dugdale@knightfrank.com

Planning

Roland Brass
roland.brass@knightfrank.com

Research

Mark Topliff
mark.topliff@knightfrank.com