

**FARMING****Land agent and surveyor expert Hugh Townsend discusses Nutrient Neutrality in more detail**

**N**UTRIENT pollution causes many environmental issues, especially in freshwater habitats and estuaries which suffer from 'eutrophication' when excess levels of nitrogen and phosphorus are present. This process speeds up the growth of certain flora such as algae, adversely impacting other plant and wildlife.

Common sources of excess nutrients include sewage treatment works, septic tanks, grey water, livestock, arable farming and industrial processes. Excess nutrients can prevent development, however when development is designed alongside suitable mitigation measures, that additional damage can often be avoided, and planning permission granted.

Under the National Planning Policy Framework important sites are protected via the Habitats Regulations 2017, and a Local Planning Authority (LPA) can only approve development if they are certain that it will not have an adverse effect on these sites.

It is down to an LPA whether to grant or refuse planning permission, however they must have regard for Natural England's (NE) advice on impacts and solutions to nutrient pollution, utilising tools for nutrient neutrality such as the Stodmarsh Nutrient Budget Calculator. The LPA will also assess a project's likely effects on these habitat sites using the Habitats Regulations Assessment (HRA) and planning permission can only be given for developments affecting these priority areas where the HRA demonstrates a neutral impact on current nutrient levels.

The EU 'Dutch Nitrogen Case' in 2018 ruled that there will be a limit on new development on priority habitat sites and areas of importance, such as Special Protection Areas and Ramsar sites, where the development would affect a site already failing to achieve suitable conditions due to nutrient pollution.

This prompted Natural England's guidance (backed by the High Court ruling in 2021 with R v Fareham Borough Council) that planning permission should only be granted after an HRA has been carried out, and where measures to mitigate the impact of nutrients in water bodies will be implemented. As of July 21, 2023 over 32 LPAs have been identified by NE as having areas needing Nutrient Neutrality (NN) for new developments, with guidance issued to 74 LPAs.

**NUTRIENT MITIGATION**

The Government have stated a target to build 300,000 new homes a year by the mid-2020s. To reduce the pollution from this, and support sustainable development, the Government will allow developers to acquire mitigation through a 'Nutrient Mitigation Scheme'. This will allow authorities and developers to identify the level of mitigation required to cancel out the nutrient pollution of a specific project.

This is known as 'nutrient neutrality' (NN) and utilises catchment calculators to assess the baseline of a site, (both the development and offset sites) the resulting net levels of pollution and the area and change in land use required on other land to offset these discharges where it cannot be achieved onsite.

Whilst Nutrient Neutrality is similar to other forms of ecosystem services, such as carbon sequestration and Biodiversity Net Gain, in that it quantifies the outcomes into 'units' or 'credits' based on habitat improvement or enhancement, it differs from them in that actions need to be directly preventing pollution on a specific habitat area, rather than having a general offsetting application as with carbon sequestration or follow an overall mitigation hierarchy like BNG. As such, only certain sites will be suitable for Nutrient Neutrality based on location.

**COMPARISON OF ENVIRONMENTAL SCHEMES SIMILARITIES**

- Values of changes quantified by units/credits;
- Metric/carbon calculators used to work out the number of units;
- Offsetting;
- Additionality; you cannot be paid for existing works, i.e. you cannot enter existing established woodland into a carbon credit scheme. All units must result from a gain from an original baseline.

**DISSIMILARITIES**

- Marketplace for NN is catchment based, BNG is England wide whilst carbon schemes are potentially worldwide;
- NN is based on the presence of a priority habitat, BNG is affected by the presence of priority habitats in terms of works required and units produced but otherwise most habitats can be improved and used for BNG. Carbon credits may be produced on any land, subject to the usual woodland creation restrictions/requirements.

**LAND IDENTIFICATION AND BANKING OF MITIGATION CREDITS**

Currently when land is identified as a vulnerable priority habitat, LPAs have freedom to create their own solutions. However, developers are able to purchase credits from within the same catchment area, as and when required using a nutrient mitigation scheme. Mitigation works will be allowed to start before any particular development site's offset is required with the results 'banked as 'credits' so are "oven ready" to sell.

The Government have set up a mitigation scheme run by NE on the Tees while the Solent predominantly due to nitrate concerns and in the Somerset Levels for phosphates have also been piloted for nutrient offsetting. The Government may use this as a basis for rolling NN out throughout the UK although all LPAs are already obliged to take the risk of nutrient pollution into account when granting planning permission.

**MITIGATION ACTIONS**

This can include shifting agricultural land towards low nutrient loading practices or the creation of new wetlands, woodland or grasslands. Natural England Guidance (2019) states that actions should be committed to for 80-125 years. Mitigation activities may include:

- Creation or restoration of new semi natural habitats. This is where land is converted to semi natural habitats such as natural wetlands, woodlands, or grasslands;
- Treatment wetlands including for: capturing runoff from agricul-

tural land; diverted river water; Wastewater Treatment Works (WWTW). A treatment wetland such as an Integrated Constructed Wetland (ICW) is specifically designed to remove nutrients, the design quality will affect mitigation and therefore the number of credits for sale;

- Short-term temporary agricultural management measures such as fallowing of land, cover crops or provision of buffer strips. This option may be of interest to landowners as the land is not secured in perpetuity. It cannot be used as long-term nutrient neutrality mitigation but allows a short (fixed) term interim mitigation measure before the in-perpetuity measures are created elsewhere. This gives time for the developer to create the long-term mitigation scheme required, whether with the same landowner or another, as above (or an alternative wastewater treatment system);
- Other actions, if an LPA agrees,

may include long term mitigation when a farmer agrees to stop fertilising their land altogether.

**THE NUTRIENT OFFSET MARKET**

The offset market is still emerging. Seeing as most projects would need to be maintained for at least 80 years, with such a long-term commitment, values in our opinion are likely to rise, especially when NN offsetting is established more comprehensively UK wide. It should be noted that phosphates credits are less numerous and should end up at a higher price per kg than nitrates.

**OTHER CONSIDERATIONS**

Under the 25 Year Environment Plan and suggested in the Environment Act 2021 there is a consultation for environmental targets with proposals for legally binding long-term targets for nutrient pollution from agriculture and we await to see how this develops as a policy which could

reduce a landowner's ability to create and sell all potential NN credits.

**NUTRIENT NEUTRALITY, BIODIVERSITY NET GAIN AND CARBON CODES**

It will be possible to stack environmental projects from separate markets. The same land may produce biodiversity units and nutrient credits, although it should be noted that once a 30-year BNG project ends, the Nutrient Neutrality agreement will continue for a significantly longer period. There is the opportunity to do BNG works on the land to create additional units, granted it is likely that there will be less of a net gain once the original habitat aims have been achieved. This combination is currently the most profitable opportunity for any landowner wanting to make the most of Environmental credits.

Land with Woodland and Peatland under the Woodland or Peatland Carbon Code can produce BNG



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► An aerial view of farm fields near Wokingham, Berkshire on a spring day Steve Parsons / PA



units as long as it is classed as 'further enhancement' over what the carbon scheme paid for and does not compromise the 'financial' criteria for acceptance onto these schemes. Woodland may often combine BNG and NN whilst peatland will rarely in practice ever be in a position to do so. Stacking may also impact the 'financial' test requirement for the Woodland Carbon Code in that the sales of carbon are a necessity to provide financial viability to the woodland creation project. We are already working on environmental schemes involving Carbon, BNG and NN on the same land.

Timing will however be vital as you cannot sell a credit for something you have already done, would do anyway or have an obligation to do. It is important to remember that starting the works for one particular scheme in isolation is likely to increase the baseline habitat value for any another environmental

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agreement, highlighting the importance of timings and starting agreements as near as possible in tandem.

#### **NUTRIENT NEUTRALITY WITH AGRI-ENVIRONMENT SCHEMES**

The enhancements from a funded agri-environment scheme cannot be used for an environmental offset agreement, but the land itself can produce units above and beyond these works as long as a baseline is taken after the agri-environment scheme has achieved its objectives. They can potentially run alongside one another, but it will need to be clear what each agreement is actually paying for and that there are distinct actions/interventions and outcomes to avoid double counting. Of course, the number of net credits available to be sold could be reduced.

Any land, whether organic or in stewardship for a number of years, will have improved the habitat condition and therefore likely have

reduced the value not only for prospective soil carbon and BNG but also NN. Careful planning and up-to-date specialist advice will be needed before making any decisions on the farm.

It remains a difficult decision as to whether to stop these funded enhancements now to continue with the guaranteed funding until purchasers are found and to sell fewer credits. We know that land may be taken out of a stewardship agreement without penalty if it is for the purpose of entering it into an environmental agreement, but we wait for confirmation and details from Natural England about any requirement for time between a change of schemes.

■ **Hugh Townsend, FRICS, FAAV, FCI Arb. is the land agent / surveyor expert of the WMN Farming supplement and he may be contacted on 01392 823935 or [htownsend@townsendcharteredsurveyors.co.uk](mailto:htownsend@townsendcharteredurveyors.co.uk).**