

# SOLENT NUTRIENT TRADING PILOT

## FREQUENTLY ASKED QUESTIONS FOR NUTRIENT CREDIT SUPPLIERS (FARMERS AND LANDOWNERS)

### INTRODUCTION

The purpose of the Solent Nutrient Trading Pilot is to test the concept of nutrient trading and learn lessons to guide future nutrient trading projects of this kind in the Solent area and in other areas of England.

It is a pilot project that is under development so we do not have all of the answers yet. However, we see farmers and landowners as part of the solution and are keen to work with you to help shape the project and understand what opportunities it can offer you.

We anticipate the first trading process will run around **March 2022** but prior to that steps need to be carried out to ensure there are sufficient mitigation sites available for trading to take place; for example developing individual mitigation site proposals, certification of credits, drawing up preparatory legal agreements. The project team is working with landowners and farmers now in order to have a number of mitigation site proposals ready to go when trading starts.

This document seeks to start answering questions raised by farmers and landowners through our initial stakeholder engagement. These frequently asked questions will be updated regularly as and when we have new information to pass on, and in response to feedback. New/revised content will be clearly highlighted in later versions.

### BACKGROUND

#### WHAT IS NUTRIENT NEUTRALITY?

Nutrient Neutrality is a means of ensuring development can take place without adding to the damaging impacts of existing nutrient pollution to internationally protected wildlife sites in the Solent. It is not seen as a long-term solution but one for the short to medium term because we recognise that it is not sustainable to continually take land out of agricultural production. In the long term every type of industry and land use needs to be more focused on managing nutrient pollution in order to protect these and other sites into the future.

#### WHAT IS NUTRIENT TRADING?

This is a mechanism for buyers and sellers to come together in an online marketplace where the environmental benefits from a mitigation site can be bought and sold.

#### WHAT IS A MITIGATION SITE?

A mitigation site is farmland that will change from a commercial agricultural use to an alternative land use that is nature based, such as woodland or wetland. It may also offer public amenity such as a new public access route, village green or community orchard in addition to, or instead of, habitat for wildlife.

## WHAT ARE THE ENVIRONMENTAL BENEFITS?

These are the benefits that can be achieved by changing land use from agriculture to a nature-based use, for example, reduction in diffuse agricultural pollution, carbon sequestration, additional wildlife habitat, flood mitigation, increased areas for public access.

## WHAT ARE NITROGEN CREDITS?

Nitrogen credits relate to the amount of nitrogen that will be taken out of the system by the mitigation land once agricultural production ceases. A method has been devised to [calculate credits for specific land parcels](#).

## WHAT IS THE CURRENT NITROGEN MITIGATION DEMAND FROM DEVELOPMENT?

Currently there are around 5,500 dwellings that need to be mitigated across the Solent catchment but this will change depending on number of developments that are mitigated through other schemes, numbers receiving planning permission and updated housing targets that may be set by Government.

## HOW WILL WE KNOW THE MITIGATION IS WORKING?

The nutrient neutrality mitigation is intended to stop the impacts of additional nutrient loads *worsening* the condition of protected sites in the Solent. It is not designed to *improve* their condition, which would require even more stringent measures. We are engaged in wider work around agricultural policy reform and reviews of wastewater treatment works permits to help to improve the condition of protected sites. It can take a long time for impacts of mitigation to show up during site condition assessments.

# DETAILED FAQs

## PARTICIPATION

### 1. WHY SHOULD I PARTICIPATE?

---

Planned developments will go ahead whether individual farmers take advantage of our pilot project or not. More housing is needed for our growing population to live in. This project sets out to support that aim without worsening the condition of internationally designated sites in the Solent which provide vital habitat, carbon sequestration and sea defences.

This could be considered as an opportunity for re-assessing your farm or estate and overall business objectives and considering if all the land is currently doing everything you want it to do. For example, it might provide an opportunity to consider natural capital related activities such as flood mitigation on some areas.

It might also offer an opportunity to receive a payment that allows you to invest in your business and achieve objectives you might otherwise find difficult to achieve, such as investing in new equipment or technology that enhances efficiency or allows diversification.

### 2. HOW DO I REGISTER MY INTEREST IN THE PILOT?

---

If you haven't already registered your interest then please email the project mailbox [Solent.Pilot@defra.gov.uk](mailto:Solent.Pilot@defra.gov.uk) to provide your contact details, including phone number, and farm location.

## ELIGIBILITY

### 3. WHAT ARE THE ELEGIBILITY REQUIREMENTS?

---

We are looking at intensively managed agricultural land that is owned by the person wishing to sell nitrogen mitigation credits. At present we are favouring land fairly close to rivers on clays, sands and gravels rather than high chalk areas. This is because we need to target water that moves to the surface quickly and therefore reaches the sea quickly (note it is different in this way to the focus of water companies who target nutrients entering the water supply aquifers in high chalk areas where they can remain for a long time).

Future research will allow us to be able to focus on locations delivering the most beneficial impact by taking the most nitrogen out of the system quickest/most efficiently. We currently also need to prioritise areas where there is the biggest shortfall between demand and supply for nitrogen mitigation credits. Currently that is in the Test and Itchen catchments but that may change in time.

Tenant farmers may not be eligible owing to the long-term nature of the legal agreements which will be between 80-125 years long.

Currently there is no minimum or maximum size for mitigation land but the land use change will be considered in relation to local priorities and policies. In some cases these may influence acceptable size, especially in the case of large-scale woodland planting. Consideration also needs to be given to the relative costs of legal agreements and whether that makes small areas less viable.

### 4. WHERE CAN MITIGATION SITES BE LOCATED?

---

We expect to be able to make available detailed maps showing individual catchments which apply. Generally mitigation should go where the impact will be most beneficial in terms of removing nutrients from the system, such as close to watercourses. Depending on type of land use change it should also go where it can most benefit local communities, nature or landscape objectives.

### 5. WHO DECIDES IF MY LAND IS VIABLE FOR MITIGATION?

---

All proposals need to be signed off by Natural England (NE) to enable Local Authorities to be assured of Habitats Regulations compliance. We expect this to take place before a supplier enters the trading platform. Non-platform schemes such as those of delivered by the Hampshire and IoW Wildlife Trust (HloWWT) also need to be signed off by Natural England before credits can be sold.

## CALCULATING NITROGEN CREDITS

### 6. HOW WILL NITROGEN CREDITS BE CALCULATED AND WHO BY?

---

Land used for mitigation must be in intensive agricultural use. In order to provide consistency in approach NE has produced a set of accepted nitrogen leaching values (see Appendix 1) from different cropping and land uses, based upon the best knowledge available. These values will be used irrespective of past or current nitrogen usage or organic certification.

In order to calculate nitrogen credits you will need to prove the previous 10 years' land use/cropping, such as Basic Payment Scheme data provided to Rural Payments Agency. For example, there are different values for cereals and general cropping so a 10 year crop rotation will help select the correct value to use on arable fields.

Many future land uses, for example woodland and areas for public amenity, will be calculated at the residual value of 5 kgN/ha/yr. In order to work out how many credits you have you should use the calculation at Appendix 1 which also provides a guide towards calculating the payment you could expect.

In some circumstances, for example wetland creation, it may be appropriate to use bespoke nitrogen leaching values.

## 7. WHICH TYPE OF MITIGATION WILL RESULT IN THE HIGHEST NUMBER OF CREDITS?

---

Wetlands are likely to provide the highest number of credits per hectare but they will only be appropriate in specific circumstances, backed up by feasibility studies carried out by suitably qualified consultants and accompanied by all relevant permissions. Mitigation wetlands will need to be supported by evidence that allows calculation of a bespoke nitrogen leaching value.

Credits will be determined by the type of land use that is being replaced and the area of mitigation land being put forward. The greatest number of credits will be achieved by putting forward land uses with the highest leaching values, such as poultry and pig farming, for mitigation.

## TYPES OF MITIGATION AND LAND USE

### 8. WHAT ARE THE LAND USE OPTIONS TO MITIGATE NITROGEN?

---

We are still exploring all land use changes that may be eligible. At present we cannot confirm meadows or wood pasture will be acceptable on commercial farms unless there is additional legal protection such as public access or a nature reserve agreement in place. However, we are keen to try to find a way of allowing these land uses.

Effective mitigation requires certainty of delivery, its enforceability, and the need for securing the adopted measures for the duration of the development's effects. In order for land to provide effective mitigation, it is necessary for the land to be subject to the prescribed management regime for a defined period, which is generally between 80-125 years. After that period there is an expectation that the function of the mitigation land remains in place in perpetuity. The new land use must also input less nitrogen than when farmed.

Changing the primary purpose of commercial agricultural land to a community, wildlife or other natural capital function helps to ensure that the mitigation delivered will be effective for the lifetime of the development.

### 9. WILL LAND USE CHANGE SUCH AS GLAMPING, INSTALLING SOLAR PANELS OR INNOVATIVE WAYS TO REDUCE NITROGEN BE ALLOWED?

---

An alternative land use such as glamping is not considered to reduce nitrogen inputs because it involves overnight stays by people who are not normally resident<sup>1</sup>. A key test for land use change proposals is are they demonstrable and enforceable over the long term. Land use change proposals that include solar panel installation or new nitrogen reduction technologies may not provide sufficient certainty of delivery to be agreed as mitigation site proposals by LPAs.

### 10. WILL I BE OBLIGED TO ALLOW PUBLIC ACCESS?

---

The aim of the scheme is to remove nitrogen from the system. The mitigation does not need to secure public benefits, such as access, to counteract nutrients from development. However, schemes providing such access would be welcomed.

### 11. CAN THE LAND USE CHANGE AT ALL OVER THE YEARS AS LONG AS I DON'T ADD ANY NITROGEN?

---

It is necessary for competent authorities to have clarity about what the land use should be to enable monitoring and enforcement to be carried out effectively for the duration of a legal agreement. For this reason there should not be an expectation of being able to change the land use at a later stage.

---

<sup>1</sup> Glamping provides holiday accommodation and would be subject to normal planning controls, including nutrient neutrality.

## 12. CAN STRIPS OF LAND BE USED TO MITIGATE NITROGEN SO THAT THE REST OF THE LAND CAN REMAIN IN AGRICULTURAL USE?

---

We anticipate strips will be allowed but there will need to be a clearly defined, permanent boundary, such as a hedge, that shows where the division lies between mitigation and farmed land. We anticipate strips mostly being used for purposes that would normally be of a linear nature such as new access routes e.g. bridleways.

## OTHER SCHEMES, STACKING AND GRANTS

### 13. WILL I BE ABLE TO STACK CREDITS FROM OTHER SCHEMES SUCH AS BIODIVERSITY NET GAIN, CARBON CREDITS AND ENVIRONMENTAL LAND MANAGEMENT (E.L.M.)?

---

Currently we are exploring the issues that need to be considered in developing practical rules for stacking and bundling, and the principles and guidance that are needed to inform the design of regulation, incentive schemes and market mechanisms.

These other schemes are still evolving but current advice is included in Appendix 2. We are aware that this is an important issue for farmers and landowners so we are working with colleagues to ensure that stacking and bundling could be permitted wherever possible and that requirements and criteria for each scheme are clear.

We would like to support trading of biodiversity units alongside nitrogen credits in the pilot if possible.

### 14. IS THERE ADDITIONAL FUNDING TO SUPPORT LAND USE CHANGE OR ONGOING MANAGEMENT OF MITIGATION SITES?

---

There may possibly be grants available for woodland planting, assuming you fulfil eligibility requirements, but probably not for other land uses. If tree planting is a condition of planning permission then planting grants are not available. There is an assumption the set-up costs of mitigation land can be built into the price of credits.

### 15. WILL A SIMILAR PLATFORM BE DEVELOPED FOR OTHER CREDIT SCHEMES SUCH AS PHOSPHORUS OR BIODIVERSITY NET GAIN?

---

We expect that the nutrients trading platform will be designed to allow it to be used for several different but similar purposes and this includes offsetting phosphorus and Biodiversity Net Gain. A similar platform is currently being developed for phosphorus in Somerset by Entrade and Wessex Water<sup>2</sup>.

## FINANCIAL CONSIDERATIONS

### 16. WHAT ARE THE TAX IMPLICATIONS OF THIS SCHEME?

---

There may be tax implications from receiving income from nutrient credit or other schemes for landowners. Financial and taxation advice is outside our sphere of expertise. We encourage you to seek appropriate professional advice before entering into any legal agreement so you are satisfied of your financial obligations as well as any opportunities presented by nutrient mitigation.

---

<sup>2</sup> [Somerset Levels Catchment Market - Update \(entrade.co.uk\)](https://entrade.co.uk)

## **LAND OWNERSHIP, LEGAL AGREEMENTS AND COMPLIANCE**

### **17. WILL I RETAIN FULL OWNERSHIP OF THE MITIGATION LAND AND CAN I SELL IT IN FUTURE?**

---

Unless you arrange to sell the land, the title of the land remains with the owner. You enter into a long-term legal agreement concerning how the land may be used which may affect your or subsequent owners' ability to make changes in the future. In the event a landowner breaches the legal agreement a regulator or competent authority may have the power to take over management to apply corrective or restorative action to the land under agreement.

It will be possible to sell or transfer the land but the new owners will be required to take on the restrictions applied to it. We anticipate there will be specific clauses or wording within legal agreements to ensure the liabilities are passed on in the event of transfer or sale.

### **18. HOW LONG WILL THE AGREEMENTS LAST?**

---

The length of legal agreements will be determined by the length of time each LPA deems representative of the life of a development. This will be between 80 and 125 years which is deemed to represent 'in perpetuity'.

### **19. AM I ABLE TO END THE AGREEMENT?**

---

You will be entering into a long-term legal agreement and there is an expectation that conditions outlined in that will be maintained in perpetuity. For the purpose of nutrient offsetting, agreements of 80 -125 years are considered to be 'in perpetuity'.

## **WOODLAND AND LAND USE**

### **20. WHAT IF THE TREES I PLANT BECOME DISEASED DO THEY HAVE TO BE REPLACED AND WHO PAYS FOR THAT?**

---

There is an expectation that if the new land use is woodland that woodland would remain on that site in perpetuity. We cannot say what the rules might be should trees become diseased. You would need to seek advice from authorities responsible for forestry at the time. The legal processes and restrictions around felling licences, maintaining woodland cover and replanting are likely apply to trees planted under the scheme.

### **21. COULD A TREE PRESERVATION ORDER BE APPLIED?**

---

Tree Preservation Orders are applied by local Councils to protect trees, groups of trees or woodlands deemed to be important for local amenity. We cannot say whether this might happen but regardless of whether or not it does the legal processes and restrictions around felling licences, maintaining woodland cover and replanting will apply to trees planted. There is an expectation that appropriate woodland management would be carried out for the duration of the agreement, if the new land use is woodland, which could include e.g. thinning, coppicing.

### **22. CAN LAND BE RETURNED TO AGRICULTURAL USE AFTER 80+ YEARS, EVEN IF THAT MEANS CUTTING DOWN WOODLAND?**

---

The expectation is that land used for this purpose will remain unfarmed in perpetuity. Where trees have been planted the legal processes and restrictions around felling licences, maintaining woodland cover and replanting will apply.

### 23. WHAT HAPPENS IF THE GOVERNMENT DECIDES THE LAND IS NEEDED TO GROW FOOD AGAIN IN FUTURE?

---

You will be entering into a long-term legal agreement and there is an expectation that conditions outlined in that will be maintained in perpetuity irrespective of changes in emphasis of Government policy.

### 24. WHAT IF THE LAND COULD BE USED FOR CLIMATE CHANGE MITIGATION IN FUTURE?

---

Permanent land use change to a natural habitat is likely to be compatible with climate change objectives, especially if the new land use is woodland or well-designed wetland.

## APPENDIX 1

**FIG 1: NITROGEN LEACHING VALUES OF LAND USES**

LAND USE	LEACHING RATE kgN/ha/yr
Poultry	70.7
Pigs	70.4
Dairy	36.2
Cereals	31.2
Horticulture	29.2
Mixed	28.2
Community food growing	26.9
General cropping	25.4
Urban	14.3
Lowland grazing	13
Greenfield/open space	5
Woodland	5

Many future land uses eg woodland and areas for public amenity will be calculated at the residual value of 5 kgN/ha/yr. In order to work out how many credits you have you should use the calculation below.

*To convert 5ha of general cropping land to a 5ha community orchard:*

General cropping land has a leaching value of 25.4 kgN/ha/yr

Community orchard has a leaching value of 5 kgN/ha/yr

**FIG 2: CREDIT CALCULATION**

A	B	C	D	E
<i>Leaching value of current land use area</i>	<i>Leaching value of new land use</i>	<i>New leaching value (A - B)</i>	<i>Size of area (ha)</i>	<i>Total credits generated (C x D)</i>
25.4	5	20.4	5	102

*Payment levels:*

The existing market cost for nitrogen credits in the Solent has delivered around £3000/credit. So to work out the level of payment you might expect (bearing in mind that market prices may change over time) simply multiply the number of credits generated by the £3000 cost per credit.

So for this example: **the total payment** for converting 5ha of general cropping land to community orchard, creating 102 credits, at £3000/credit = **£306,000**.

In considering this figure consider the estimated **income you'd expect to generate** from the potential mitigation land over the length of the legal agreement, **costs of implementation** of new land use (e.g. establishing a low maintenance grass mix, fruit trees, fencing, gates, community orchard signage, planting and initial tree establishment costs), legal and advisor costs and so on.

## APPENDIX 2

### BIODIVERSITY NET GAIN – LATEST UPDATE (MAY 2021)

- Biodiversity net gain (BNG) experts in Defra and NE will continue to test and learn in collaboration with land managers how investment in habitat creation to generate BNG units can complement investment in land use change and habitat creation to deliver wider benefits (e.g. nutrient pollution mitigation, carbon sequestration) whilst avoiding perverse incentives.
- We want to enable land managers to have other environmental agreements as well as BNG agreements, where these are complementary.
- Farmers and land managers with existing environmental agreements (e.g. nutrient pollution mitigation agreements) will be able to propose BNG schemes alongside their other agreements but will not be able to be paid for the same benefit/outcome (e.g. biodiversity gain or nutrient reduction) twice through different schemes.
- Any habitat enhancements proposed to generate BNG or nutrient pollution mitigation units should be additional i.e. they would not have happened anyway without the development. Land managers will be able to enter into BNG agreements on parcels/areas of land not covered by other environmental schemes/obligations. In addition, we want to enable land managers to layer BNG and other environmental agreements on a given parcel/area where the outcomes are clearly different and not in conflict with one another.
- Our aim is to find a user-friendly and proportionate approach to delivering these outcomes which doesn't discourage land managers from doing more for the environment but ensures that they aren't being paid twice for the same outcomes through different schemes.

### ENVIRONMENTAL LAND MANAGEMENT SCHEMES – LATEST UPDATE (MAY 2021)

- Farmers and land managers who sign up to other environmental agreements before the Environmental Land Management scheme (E.L.M.) commences will not be unfairly disadvantaged when it comes to applying for E.L.M.
- We'll continue to test and learn in collaboration with farmers and other land managers through Tests & Trials and the National Pilot the outcomes we're seeking to achieve. These include that:
  - We want to enable participants to have other environmental agreements as well as E.L.M., where these are complementary.
  - Farmers and land managers with existing environmental agreements will be able to apply for E.L.M. alongside their other agreements but will not be able to be paid for the same action twice through different schemes.
  - Our intention is that land managers should be able to enter into E.L.M. agreements on parcels/areas of land not covered by other environmental schemes/obligations.
  - Additionally we want to enable land managers to layer E.L.M. and other environmental agreements on a given parcel/area where the outcomes of the schemes are clearly different and not in conflict with one another (the 'additionality' principle).
- Our aim is to find a user-friendly and proportionate approach to delivering these outcomes which doesn't discourage land managers from doing more for the environment but ensures that they aren't being paid twice through different schemes.
- We envisage that this could be enabled by Land Management Plans and we will test how this could work through Tests & Trials and the National Pilot.