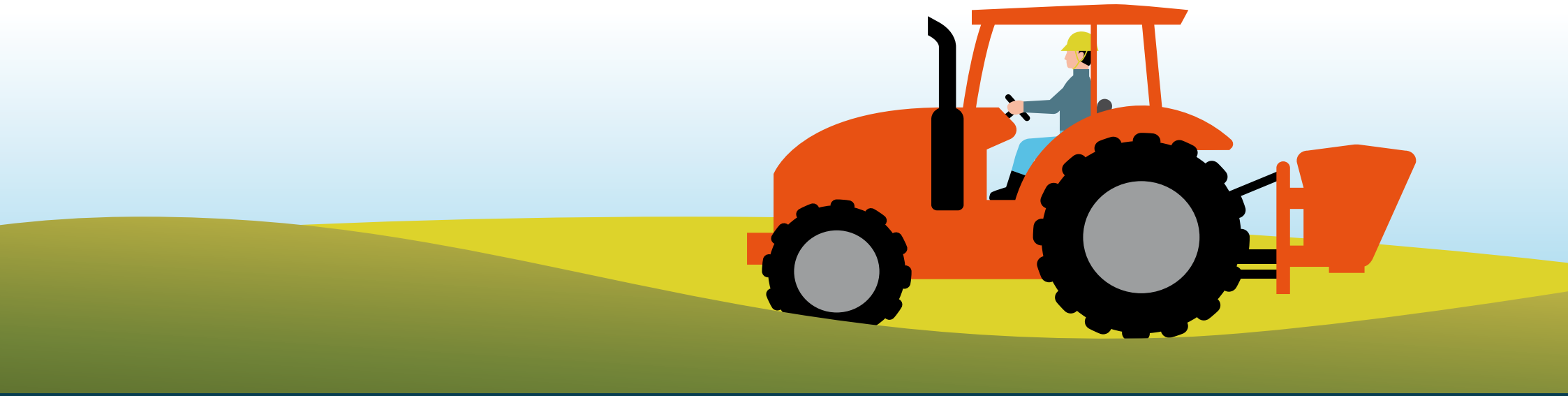
Downs & Harbours Clean Water Partnership

Portsmouth Water

Portsmouth Water

Nitrate Intervention Payment for Ecosystem Services (PES) Scheme

Handbook



Contents

Introduction and contact information

Portsmouth Water is undertaking catchment management in response to a need to tackle rising nitrate levels affecting groundwater abstracted for public water supply and excessive nutrient loading into surface and coastal waters.

Portsmouth Water Nitrate Intervention Payment for Ecosystem Services (PES) scheme will directly assist farmers (and other land managers) in sensitive catchment areas to deliver measures that aim to reduce nitrate leaching and improve farming efficiency.

This handbook details the current PES incentive measures available under the scheme. Farmers and land managers who wish to check their eligibility for any of the measures should contact PW Catchment Team in the first instance. Funding for additional incentive measures will be available following feasibility and further research.

The Scheme will run until March 2027 where funding will be reviewed, grant payments can only be paid up until March 2027, until additional funding has been approved. Grants are capped at £10k per year per holding as agreed with Portsmouth Water.

Contact details for Portsmouth Water

Portsmouth Water's Catchment and Environment Department

catchment.management@portsmouthwater.co.uk

Sophie Emms: 07545 928070
(Portsmouth Water's Catchment Management Team)

Portsmouth Water Ltd
Catchment and Environment Department
PO Box 8
West Street
Havant
Hampshire
PO9 1LG

PES options and payment rates

Measure number and description		Payment rate	Page
1	Autumn/winter cover crops (catch crop) (tiered destruction)	£80/Ha/YR - £150/Ha/YR	5
2	Cover crop (catch crop) followed by fallow	£313/Ha/YR	7
3	Multi-species spring sown cover crop	£163/Ha/YR	8
4	Early grass after maize harvest	£110/Ha/YR	9
5	Low nitrogen input to improved grassland	£250/Ha/YR	10
6	Arable reversion on karst feature risk fields	£400/Ha/YR	11
7	Undersown crops	£200/Ha/YR	12
8	Herbal ley	£382/Ha/YR	13
9	Bespoke measure	To be agreed with PW Catchment Officer	14
10	Remove livestock from grassland during the autumn and winter	£115/Ha/YR	15
11	Low nitrogen input cash crops	£250/Ha/YR	16
12	Nitrogen testing and specialist advice	100% of agreed total	17
13	Variable nitrogen service (N mapping) - High risk	100% of agreed total	18
14	Variable nitrogen service (N mapping) - Medium and low risk	100% of agreed total (up to 150 Ha)	19
15	Nutrient management plan	100% of agreed total	20
16	Soil management plan	100% of agreed total	21

Measure 1
Autumn/winter cover crops (catch crop) (tiered destruction)
£80/ha/yr - £150/ha/yr

If you would like to apply for measure 3 please contact a Portsmouth Water Catchment Officer to discuss.

General specifications

- Over Autumn/Winter cover crop prior to spring drilling to be established by 15th September and retain cover until 15th January at the earliest.
- Type of cover crop is flexible (e.g. oats, mustard). Legumes, including vetches and clover can be included in mixes, as long as they do not form more than 10% of the mixture, the reason for this is that legumes are not nitrogen scavengers. If you wish to increase this percentage, please contact your PW Catchment Officer. We recommend mixes that include brassicas such as radish and mustard; rye grass and fibrous roots species such as Phacelia and oats.
- Forage crop allowed.
- No artificial fertiliser inputs and/or manure/ digestate/ muck spreading on cover crops.
- Destruction from 15th of chosen destruction month by either: Low intensity grazing, mechanical means or Glyphosate application (not before, during or following heavy rainfall) and no more than 6 weeks before drilling the following crop.
- Flexibility with tiered destruction and species mix: using a species mix containing at least 4 species but <10% clover and no mustard with destruction before March £125/Ha or destruction not until March £150/ Ha. Or, using a single species e.g. turnip, buckwheat or oats with destruction before March £80/Ha or not until March £100/Ha. We are requesting a prescriptive mix with low legume content because they do not scavenge nitrogen, and no mustard which is not frost resistant so may die back over the late winter. We recommend mixes that include brassicas such as radish and turnip, rye grass and fibrous roots species such as phacelia and oats. Please speak to a catchment officer if you wish to discuss the species mix or get our recommendation for the prescribed mix.
- To claim for cover crop measures, we will need photographic evidence of establishment and destruction (taken from the same position and including dates). A Catchment Officer may visit to check establishment in early December.

Benefits

Financial
Cover crop seed funding, free soil testing and results.

Water Quality
Providing winter cover and nitrate soak up - reduces winter nitrate leaching to groundwater. Reduced levels of soil erosion and gullying.

Biodiversity
Winter cover for wildlife.

Soil Health
Soil recovery over winter.

What is a catch crop?

Although the terms cover crop, catch crop and green manure are used interchangeably, they can distinguish between different functions:

- Cover crops ‘cover’ the soil between the harvest and establishment of main (cash) crops
- Catch crops ‘catch’ available soil nitrogen and prevent nutrient losses (via run-off and leaching)
- Green manures improve nutrition for following crops through the capture and release of nutrients, and the addition of fresh biomass (organic matter)

Measure 1 continued
Autumn/winter cover crops (catch crop) (tiered destruction)
£80/ha/yr - £150/ha/yr

If you would like to apply for measure 3 please contact a Portsmouth Water Catchment Officer to discuss.

- *We encourage Soil Mineral Nitrogen (SMN) testing is carried out after this measure if you are due to sow a spring crop. To determine how much nitrate is available for the following crop and reduce the required application of synthetic fertiliser to reduce the risk of nitrate leaching. Further details on SMN testing are included within this handbook under Measure 9.*

Targeting (where funding will be offered)

- Measure will be available to medium and high-risk holdings. Please refer to Portsmouth Water Risk Map (Appendix 1).
- Portsmouth Water can recommend a contractor for cultivation and sowing within the area. Using a one-pass system for cultivation and seeding makes the process fast and efficient and can be provided at a competitive rate. Please inform us if you require this service.

Measure 2
Cover crop (catch crop) followed by fallow
£313/ha

General specifications

- Cover crop drilled in the autumn (established by 15th September), retained or land left fallow from 15th February until the end of the minimum fallow period (15th July).
- To claim for cover crop measures, we will need photographic evidence of establishment and destruction (taken from the same position and including dates). A Catchment Officer may visit to check establishment in early December.
- Type of cover crop is flexible (e.g. oats, mustard). Legumes, including vetches and clover can be included in mixes, as long as they do not form more than 10% of the mixture, the reason for this is that legumes are not nitrogen scavengers. If you wish to increase this percentage, please contact your PW Catchment Officer. We recommend mixes that include brassicas such as radish and mustard; rye grass and fibrous roots species such as phacelia and oats.
- Fallow can be managed for biodiversity target species.
- If suitable the cover can be cut for forage in the spring or summer.
- No artificial fertiliser inputs and/or manure/ digestate/ muck spreading unless prior written agreement is made with Portsmouth Water.
- Use of graminicides permitted.
- Measure to be implemented on an individual field on a one-off basis – could rotate through high risk fields, implementing 1 year in 5.

Targeting (where funding will be offered)

- Measure will be available to high-risk holdings, please refer to Portsmouth Water Risk Map (Appendix 1).

What is a catch crop?

Although the terms cover crop, catch crop and green manure are used interchangeably, they can distinguish between different functions:

- Cover crops ‘cover’ the soil between the harvest and establishment of main (cash) crops
- Catch crops ‘catch’ available soil nitrogen and prevent nutrient losses (via run-off and leaching)
- Green manures improve nutrition for following crops through the capture and release of nutrients, and the addition of fresh biomass (organic matter)

Benefits

Financial
Savings in fertiliser costs and some operational costs for farmers.

Water Quality
Reduced nitrate leaching over winter due to cover cropping and no/less N being applied during fallow period, therefore reduced nitrate leaching to groundwater.

Biodiversity
Potential benefits for uncommon arable plants and farmland birds.

Soil Health
Fallow for one season, soil recovery and increased organic matter.

Pest control
Opportunity to help control weeds (black grass, sterile brome).

Please note: Agreed prescription will be made available with formal offers.

Measure 3
NEW! Multi-species spring sown cover crop
£163/ha

General specifications

- Cover crop drilled in the spring (established by May) which will not be harvested as a 'cash crop'. It must be destroyed more than 2 weeks before you intend to sow the next main crop.
- To claim for cover crop measures, we will need photographic evidence of establishment and destruction (taken from the same position and including dates). A Catchment Officer may visit to check establishment in early December.
- Type of cover is flexible, but you must use a rapid growing seed mix that contains at least 4 species. Species should be from two or more of the following plant families; brassicas, legumes, cereals and grasses, herbs, with grasses making up no more than 25% of the total mix by weight.
- If you wish to include nectar-rich wildflower species you could include species such as common knapweed, musk mallow, oxeye daisy, wild carrot, yarrow.
- Fallow can be managed for biodiversity target species.
- If suitable the cover can be cut for forage in the spring or summer.
- No artificial fertiliser inputs and/or manure/ digestate/ muck spreading unless prior written agreement is made with Portsmouth Water.
- Use of graminicides permitted.
- Measure to be implemented on an individual field on a one-off basis – could rotate through high risk fields, implementing 1 year in 5.

Targeting (where funding will be offered)

- Measure will be available to high-risk holdings, please refer to Portsmouth Water Risk Map (Appendix 1).

What is a catch crop?

Although the terms cover crop, catch crop and green manure are used interchangeably, they can distinguish between different functions:

- Cover crops 'cover' the soil between the harvest and establishment of main (cash) crops
- Catch crops 'catch' available soil nitrogen and prevent nutrient losses (via run-off and leaching)
- Green manures improve nutrition for following crops through the capture and release of nutrients, and the addition of fresh biomass (organic matter)

Benefits

Financial
Savings in fertiliser costs and some operational costs for farmers.

Water Quality
Reduced nitrate leaching over winter due to cover cropping and no/less N being applied during fallow period, therefore reduced nitrate leaching to groundwater.

Biodiversity
Potential benefits for uncommon arable plants and farmland birds.

Soil Health
Fallow for one season, soil recovery and increased organic matter.

Pest control
Opportunity to help control weeds (black grass, sterile brome).

Measure 4
Early grass after maize harvest
£110/ha/yr

General specifications

- Establish a fast-growing cover crop within 2 weeks of harvesting (no later than 15th October) & retain cover crop until 1st March.
- Cover crop should be suitable for autumn sowing, fast growing, and frost tolerant to provide adequate cover over winter.
- Type of cover crop is flexible. The main species should be Italian ryegrass, Westerwolds, rye, barley or oats. The minimum seed rate used for grasses should be 35kg/ha and for cereals 100kg/ha.
- The cover crop end use can be used for silage or grazed.
- Estimates of the nutrients released by the cover crop should be used in nutrient planning for the following crop to ensure there is no over application or excess availability of nutrients, which may subsequently leach or runoff. Nutrients should only be used in line with crop requirements.
- Flexibility for later grass establishment but at reduced payment rate (default option if cannot establish cover by mid-October) as agreed with PW Catchment Officer.

Targeting (where funding will be offered)

- Measure will be available to high-risk holdings, please refer to Portsmouth Water Risk Map (Appendix 1).

Benefits

Water Quality
Providing winter cover and nitrate soak up - reduces winter nitrate leaching to groundwater. Reduced levels of soil erosion and gullying.

Biodiversity
Winter cover for wildlife.

Soil Health
Soil recovery over winter.

Measure 5
Low nitrogen input to improved grassland
£250/ha/yr

General specifications

- Eligible on improved grassland fields, where applications of nitrogen have exceeded 100kg N/ha/year in at least two out of the previous three years.
- No or very low nitrogen inputs (artificial fertilisers or organic manures) to be applied from the date of your authorised agreement in consultation with Portsmouth Water.
- Only apply minimal amounts of manure and fertiliser according to pre-calculated spreading values. This will be limited to either 12 tonnes of well-rotted farmyard manure per ha per year or up to 50kg of nitrogen per ha per year in accordance with a nutrient plan.
- Grazing allowed but only at a low intensity (e.g. 0.8 Livestock Units/ha = 10 sheep/1 cow/1 horse) to ensure a dense grass sward is maintained.
- See measure 10 for a top-up payment option for removing livestock over the winter.

Targeting (where funding will be offered)

- Measure will be available to high-risk holdings, please refer to Portsmouth Water Risk Map (Appendix 1).

Benefits

Financial
Savings in fertiliser costs and some operational costs.

Water Quality
Reduced nitrate leaching over winter due to no cropping and no/less N being applied during fallow period, therefore reduced nitrate leaching to groundwater.

Measure 6
Arable reversion on karst feature risk fields
£400/ha/yr

General specifications

- Arable reversion to grassland on specific fields thought to be at high risk of karstic 'fast pathways' to groundwater.
- Field must have been used for arable cultivation within the last two years.
- Reversion of whole field(s) to grassland. Option to divide very large fields if karstic features concentrated in one area (to be negotiated on a case by case basis).
- Grass sward to be drilled/sown by 15th September of the start agreement year.
- Sward composition flexible and to be agreed with a qualified crop adviser on a case by case basis, but ideally should include a mix of grasses, herbs and legumes. Legumes may be included to a maximum proportion of 30% (by seed proportion).
- Seed rate must be sufficient to establish a dense sward.
- Maintain grass sward for at least 4 years with rolling annual review.
- No application of N allowed unless prior agreement is made with PW.
- Grass can be cut or topped and is encouraged regularly during the growing season in the first 12 months after establishment and to be topped throughout the agreement as appropriate.
- Light grazing by sheep only is permitted.
- At the end of the ley period, if grass is to be destroyed and replaced, cultivation is not to be undertaken more than 6 weeks before the following crop is sown/drilled.

Targeting (where funding will be offered)

- Measure will be available to high-risk holdings, please refer to Portsmouth Water Risk Map (Appendix 1) and only to a few particular fields with high karstic risk, on a case-by-case basis.

Benefits

Financial
Save on N fertiliser costs and reduced operational burden/costs.

Water Quality
Less fertiliser applied.

Biodiversity
Habitat/food for birds, arable plants, insects.

Measure 7
Undersown crops
£200/ha/yr

General specifications

- Undersown crops with grass or a mix of grass and legumes and/or herbs. Legumes used to a maximum proportion of 50% to ensure the grasses and herbs can utilise the N fixed by the legumes.
- For undersowing maize establish a fast- growing grass cover crop between rows of maize by 10th July to provide dense groundcover over Autumn/winter.
- Retain undersown cover until at least 15th January if the following crop is combinable and until at least 1st March if the following crop is maize. Once destroyed, aim to establish the following spring crop within 6 weeks.
- Herbicide usage allowed provided it is authorised by a qualified agronomist.
- N input allowed to establish cash crop, but no N to be applied to undersown mix during the autumn and winter period unless prior agreement is made with PW.
- Estimates of the nutrients released by the cover crop should be used in nutrient planning for the following crop to ensure there is no over application or excess availability of nutrients, which may subsequently leach or runoff.
- We encourage Soil Mineral Nitrogen (SMN) testing is carried out before and after this measure. To determine how much nitrate is available for the following crop and reduce the required application of synthetic fertiliser to reduce the risk of nitrate leaching. Further details on SMN testing are included within this handbook under Measure 9.

Targeting (where funding will be offered)

- Measure will be available to high-risk holdings, please refer to Portsmouth Water Risk Map (Appendix 1).

Benefits

Financial
Undersowing mix funding, free soil testing and results.

Water Quality
Reduces nitrate leaching due to greater uptake by plants, and longer duration of cover. Reduces soil erosion. May reduce need for herbicide usage.

Biodiversity
Winter cover for wildlife and summer food for priority farmland bird species.

Soil Health
Builds soil fertility.

Pest control
May suppress weeds.

Measure 8
Herbal ley
£382/ha/yr

General specifications

- Herbal leys must be established in either the spring or the autumn. Do not leave ground bare over winter. Sow by 10th September or by 31st May. If spring established, then a cover crop must be grown over the preceding winter.
- Destruction of the herbal ley is only permitted in the Spring, when the risk of nitrate leaching is lowest. We recommend leaving the sward to rest for at least five weeks between 1 May and 31 July so that the majority of red clover flowers are available for pollinators.
- Establish a sward of at least three grass species, three legumes and two herbs/forbs; match the choice of species to the soil type, e.g. do not grow cocksfoot or sainfoin on heavier soils.
- No synthetic nitrogen fertiliser can be applied. Maintenance applications of phosphorus and potash fertiliser are permitted, as per the AHDB Nutrient Management Guide (RB209). Applications of lime are permitted.
- One application of up to 25 t/ha manure application per year is permitted before drilling between 1st March and 30th August; or two applications of cattle slurry per year, each of up to 30 m3/ha per application.
- Summer grazing by livestock is permitted between 15th March and 15th October inclusive (i.e. 7 months). Winter grazing is not permitted between 16th October and 14th March inclusive.

Targeting (where funding will be offered)

- Measure will be available to high-risk holdings, please refer to Portsmouth Water Risk Map (Appendix 1).

Benefits

- Improve and maintain the soil's structure, increase soil organic carbon, biology, and fertility which will in turn lead to better water drainage and holding capacity in the soil.
- This option could be used as a soil conditioning break crop option in a field where compaction or poor soil structure is an issue. This could help alleviate issues such as waterlogging, run-off and soil erosion.
- Help to increase nitrogen scavenging from the soil, reducing nitrogen leaching and run-off.
- Potentially help with problematic grass weeds.
- They support biodiversity including beneficial insects such as pollinators and can also provide diverse forage and cover for farmland birds.
- We recognise the benefit of Herbal leys being in place for a minimum of 2 years. Our scheme is currently available on a one 1-year contract. If you wish to continue in to year 2, please contact your Catchment Officer to discuss.

Measure 9
Bespoke measure

Portsmouth Water's Payment for Ecosystem Services and Capital Grant schemes aim to reduce the risks to groundwater quality at the source. From our shared understanding of catchments and the evidence from previous trials we know that land and water connectivity is key.

Unlike others this measure has no set requirements.

This measure could be available if the following apply:

This measure is in place to help support farmers in implementing measures to reduce the risks to groundwater from nitrate. This measure could be suitable in the following situations:

- If a scheme you wanted to take up is currently unavailable.
- If requirements of a scheme do not work with your rotation
- If you are considering other measures that could help protect groundwater quality from nitrate.

Measure will be available to high-risk holdings, please refer to Portsmouth Water Risk Map (Appendix 1).

All applications to this measure will be assessed on potential groundwater quality protection and the following criteria:

- Location and connectivity to Portsmouth Water groundwater sources
- Objectives/outputs being delivered in relation to local raw water quality challenges.
- Scale of risk reduction of nitrate leaching
- Learning opportunity and potential to expand.
- Cost justification for both Portsmouth Water and the applicant.

We strongly advise you have a discussion with your PW Catchment Officer before applying for this measure.

Payment rates for this measure are subject to discussion.

Measure 10

NEW! Remove livestock from grassland during the autumn and winter

£115/ha

General specifications

- You must remove all livestock from the land for at least four consecutive months during the autumn and winter months. This period will usually be between November and March. For the purposes of this action, livestock includes cattle, sheep, goats, ponies and horses, as relevant.
- You must keep a written record of grazing activity on each land parcel entered into this action to show you've met the minimum livestock removal period required by this action.

Targeting (where funding will be offered)

- Measure will be available to high-risk holdings, please refer to Portsmouth Water Risk Map (Appendix 1).

Benefits

Financial
Savings in fertiliser costs and some operational costs for farmers.

Water Quality
Reduced nitrate leaching over winter due to cover cropping and no/less N being applied during fallow period, therefore reduced nitrate leaching to groundwater.

Biodiversity
Potential benefits for uncommon arable plants and farmland birds.

Soil Health
Fallow for one season, soil recovery and increased organic matter.

Measure 11
NEW! Low nitrogen input cash crops
£250/ha

General specifications

- A maximum synthetic nitrogen application of 120 kg N/ha on spring crops, and 150 kg N/ha on winter crops (e.g. wheat, OSR).
- You must keep records of nitrogen application. A nutrient management plan showing intended nitrogen application is also required. A catchment officer will request to see this evidence.

Targeting (where funding will be offered)

- Measure will be available to high-risk holdings, please refer to Portsmouth Water Risk Map (Appendix 1).

Benefits

Financial
Savings in fertiliser costs and some operational costs for farmers.

Water Quality
Reduced nitrate leaching over winter due to cover cropping and no/less N being applied during fallow period, therefore reduced nitrate leaching to groundwater.

Measure 12
Nitrogen testing and specialist advice

Support for testing, analysis and advice for effective nitrogen applications

100% of agreed total

General specifications

- Nitrogen testing of soils, plants and manures for effective nutrient management planning. Planning nutrient applications is a vital farm management tool to ensure that applied nutrients (either in terms of bagged fertiliser or manures) match the crop demand to optimise yield and minimise environmental losses.
- Support for combination of nitrogen focused testing including (but not limited to) Soil Mineral Nitrogen (SMN) testing, organic matter, tissue samples and manure nitrogen testing.
- Soil Mineral Nitrogen (SMN) results to be utilised to work out Soil Nitrogen Supply (SNS) and N indexes. Soil Mineral Nitrogen (SMN) samples to be collected as close to planting as possible & not within two months of applying nitrogen fertiliser or organic materials.
- Specifics of soil sampling to be based on farm situation, needs and interest and results to feed into the farm nutrient management plan.
- Applicant to choose their own supplier (including agronomist) for these services as agreed with Portsmouth Water, although we have suppliers we can recommend.
- It is important that these results are used to make calculations of required synthetic nitrogen fertiliser requirements. Portsmouth Water catchment officers or an agronomist will be able to advise on the test results and how to calculate the nitrogen fertiliser requirement.
- You will need to sample all fields that will be in the coming rotation, shortly before sowing. Soil sampling should be to a depth of 30–60 cm and should be carried out in at least 5 places across each field, preferably in a W shape, samples should be ≥ 250 g. Organic matter/ slurry samples should be taken from different places across the heap/store, samples should be ≥ 250 g/250 ml. Keep soil samples cool and fresh for analysis. Follow these guidelines unless otherwise specified by an independent advisor.

Targeting (where funding will be offered)

- Measure will be available to low, medium and high-risk holdings. Please refer to Portsmouth Water Risk Map (Appendix 1).

Benefits

Financial
Reduced wastage of nitrate fertiliser (and costs).

Water Quality
Reduced risk of over application therefore reduced nitrate leaching risk especially post-harvest (due to high N residuals).

Soil Health
Better understanding of soil health.

Measure 13
Variable nitrogen service (N mapping) – High risk
100% of agreed total

General specifications

- Support for variable nitrogen mapping.
- Satellite images and the application files to suit on farm GPS/Fertiliser/Sprayer controller and variable rate mapping.
- Agreement holders must use variable rates of N application as recommended by their precision farming service provider.
- No area restriction for service on high-risk holdings.
- Consultation with a soil specialist through the growing season on nitrogen rates and advise/ supply correct variable plans for that application.
- Applicant to choose their own supplier for this service as agreed with Portsmouth Water, although we have suppliers we can recommend.

Targeting (where funding will be offered)

- Measure will be available to high-risk holdings. Please refer to Portsmouth Water Risk Map (Appendix 1).

Benefits

Financial
Reduced wastage of nitrate fertiliser (and costs). Greater and/or more consistent crop yields and protein content across fields.

Water Quality
Precise and informed fertiliser applications to reduce the risk of over application therefore reduced nitrate leaching risk especially post-harvest (due to high N residuals).

Soil Health
Better understanding of soil health, reduced ‘trafficking’.

Measure 14
Variable nitrogen service (N mapping) – Medium and low risk
100% of agreed total (up to 150ha)

General specifications

- Support for variable nitrogen mapping.
- Satellite images and the application files to suit on farm GPS/Fertiliser/Sprayer controller and variable rate mapping.
- Agreement holders must use variable rates of N application as recommended by their precision farming service provider.
- Area restriction for service on medium and low risk holdings (up to an area of 150 Ha/Farm (370.5 acres).
- Consultation with a soil specialist through the growing season on nitrogen rates and advise/ supply correct variable plans for that application.
- Applicant to choose their own supplier for this service as agreed with Portsmouth Water, although we have suppliers we can recommend.

Targeting (where funding will be offered)

- Measure will be available to low and medium-risk holdings. Please refer to Portsmouth Water Risk Map (Appendix 1).

Benefits

Financial
Reduced wastage of nitrate fertiliser (and costs). Greater and/or more consistent crop yields and protein content across fields.

Water Quality
Precise and informed fertiliser applications to reduce the risk of over application therefore reduced nitrate leaching risk especially post-harvest (due to high N residuals).

Soil Health
Better understanding of soil health, reduced ‘trafficking’.

Measure 15
Nutrient Management Plan
100% of agreed total

General specifications

- A farm specific nutrient management plan taking into consideration recent analysis results, support for testing available under Measure 7.
- If organic manures are used, the nitrogen content must be taken into account in nutrient management plan.
- Soil and crop tissue N testing will provide understanding of nitrogen residues and availability to inform more accurate application levels.
- Applicant to choose their own supplier (including agronomist) for these services as agreed with Portsmouth Water, although we have suppliers we can recommend.

Targeting (where funding will be offered)

- Measure will be available to low, medium and high-risk holdings. Please refer to Portsmouth Water Risk Map (Appendix 1).

Benefits

Financial
Reduced wastage of nitrate fertiliser (and costs). Greater and/or more consistent crop yields and protein content across fields.

Water Quality
Better informed nutrient applications potential to reduce the risk of over application therefore reduced nitrate leaching risk especially post-harvest (due to high N residuals).

Measure 16
NEW! Soil management plan
100% of agreed total

General specifications

- This action's aim is that you understand the condition of your soil and effectively plan how to increase the long-term health, productivity, and resilience of your soil.
- It's particularly important for land: at risk of runoff and soil erosion; at risk of losing soil carbon or releasing greenhouse gases; connected to water bodies and watercourses; with historic features, to protect them from damage.
- You must assess the soil for all the land parcels entered into this action and produce a written soil management plan which covers that land. Split fields into separate units where soils and slopes differ. The plan can be recorded on paper or digitally.
- For all land parcels perform a risk-assessment, recording any problems such as: existing runoff and soil erosion; soil compaction; poor crop growth; capping where a hard surface crust forms on soil; low earthworm activity.
- Test the soil organic matter (SOM) on all the land parcels entered into this action. See measure 9 for further details on soil sampling/testing.
- Applicant to choose their own supplier (including agronomist) for these services as agreed with Portsmouth Water, although we have suppliers we can recommend.
- There are companies that produce a soil management plan such as Soil Benchmark and we will accept the outputs as evidence for this measure.
- You must keep a written record of your soil management plan, including your soil assessment and the SOM test results. A catchment officer may request to see this.

Targeting (where funding will be offered)

- Measure will be available to low, medium and high-risk holdings. Please refer to Portsmouth Water Risk Map (Appendix 1).

Benefits

- **Improve soil health**
- **Reduce runoff, soil erosion and flood risks**
- **Protect historic features**
- **Improve crop yields**
- **Grow food sustainably, protecting soil resources for the future**
- **Reduce the effects of climate change**

Important information

Record keeping, validation and data collection

In entering the scheme, you are agreeing to allow a Portsmouth Water Catchment Officer to visit land in a scheme for visual inspection before, during and after the implementation of the scheme.

In entering the scheme, a Portsmouth Water catchment officer may request farm records from you demonstrating fertiliser rates, the change in cropping, stocking rates etc.

To claim for cover crop measures, we will need photographic evidence of establishment and destruction (taken from the same position and including dates). A Catchment Officer may visit to check establishment in early December.

Receipts and invoices for work must be submitted when claiming for agreed measures and should be kept for the duration of the Agreement with Portsmouth Water.

You must promptly inform us in writing of any changes to your agreement or any of the details set out in your application form.

Payment terms

Payment will be made annually.

To claim payment for the scheme your PW Catchment Officer will request you to send an invoice directly back to the Catchment Management Inbox. Or if by post please address to your PW Catchment Officer.

catchment.management@portsmouthwater.co.uk

You may be required by the Portsmouth Water payments team to be registered as “suppliers” to Portsmouth Water Limited, please ensure paperwork is filled out and returned.

Portsmouth Water payment terms are end of the month plus 30 days.

Payment dates

Payment dates for measures:

Invoices, claim forms and the required evidence must be submitted between the 1st - 31st January to guarantee payment by 31st March.

Payment dates for Measures 1, 2 and 3 – cover crops (catch crops):

We recognise that cover crop destruction may not have occurred by 31st January.

Therefore, claims forms, that you will have received along with your contract agreement, invoices and the required evidence must be submitted by 31st March and payment will be made by the end of May

Payment dates for Measures 5, 6, 7 and 8:

We recognise measures 5, 6, 7 and 8 may span multiple years and may still be running after the end of the financial year. Claims forms, that you will have received along with your contract agreement, invoices and the required evidence must be submitted by 31st October for payment by the end of December. Payment will be made on a yearly basis for each year that the measure is running.

Double funding

We will not double fund if you are already receiving funding for the same measure from elsewhere.

1 Planning use of manures and fertilisers

- Plan in advance each application of organic manures and manufactured fertilisers to meet but not exceed soil and crop nutrient needs
- Your planning must take into account soil testing for pH, nitrogen (N), phosphorus (P), potassium (K) and magnesium (Mg). Nitrogen levels can be determined by assessing soil nitrogen supply instead of soil testing

2 Organic manures must not be stored on land:

- within **10 metres** of inland freshwaters or coastal waters
- where there is significant risk of pollution entering inland freshwaters or coastal waters
- within **50 metres** of a spring, well or borehole

3 Organic manures or manufactured fertilisers must not be applied:

- if the soil is waterlogged, flooded, or snow-covered
- if the soil has been frozen
- if there is significant risk of causing pollution

4 Organic manures must not be applied:

- within **10 metres** of any inland freshwaters or coastal waters
- within **50 metres** of a spring, well or borehole

5 Manufactured fertiliser must not be applied:

- within **2 metres** of inland freshwaters or coastal waters

6 You must take all reasonable precautions to prevent significant soil erosion and runoff from:

- the application of organic manure and manufactured fertiliser
- cultivation practices & harvesting
- poaching by livestock

7 Protecting against soil erosion by livestock

- Any land within **5 metres** of inland freshwaters and coastal waters must be protected from significant soil erosion by preventing poaching by livestock

8 Livestock feeders must not be positioned:

- within **10 metres** of any inland freshwaters or coastal waters
- within **50 metres** of a spring, well or borehole
- where there is significant risk of pollution

How to apply

The PES Application Form is available to download from the Downs and Harbours Clean Water Partnership website (www.cleanwaterpartnership.co.uk) or available from PW Catchment Officer.

PES grants are not considered to have been agreed unless Portsmouth Water issues a formal agreement.

All applications should be sent either by email to the Catchment Management Department email address: **catchment.management@portsmouthwater.co.uk** or alternatively by post to the following address for the attention of the Catchment and Environment Department:

Portsmouth Water Ltd
Catchment and Environment Department
PO Box 8
West Street
Havant
Hampshire
PO9 1LG

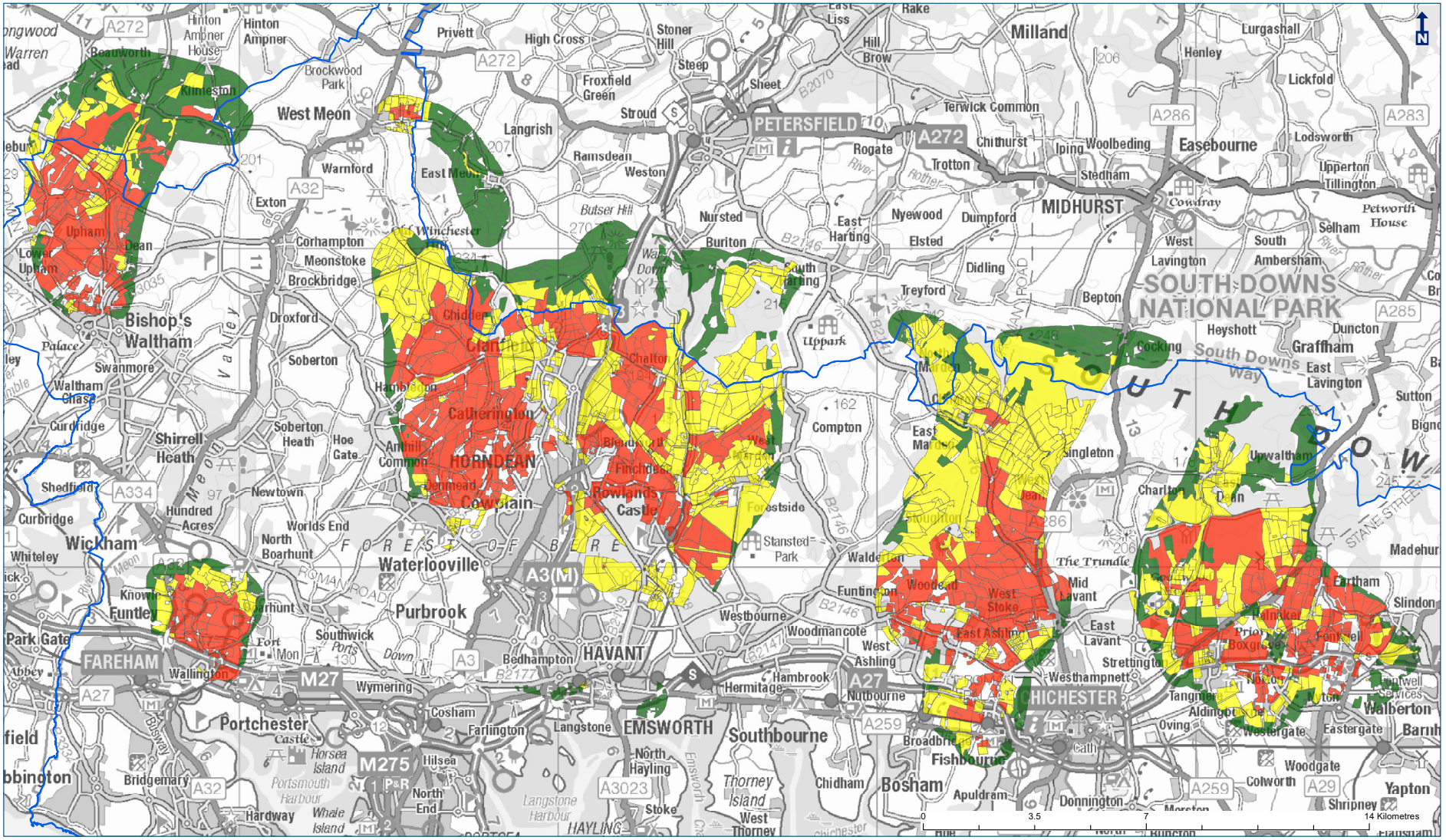
Data protection

The data and documentation collected as part of your application will be held securely and will be processed at all times in accordance with the Data Protection Act 2018.

Your application and accompanying documents will be held electronically within Portsmouth Water's Catchment Management team and only those who require access to the data will be able to process this. If you submit your application by post, the application form and accompanying documents will be scanned and the hardcopy documents securely destroyed.

Successful applications will be held until 2030 and unsuccessful applications will be held until 2025 as per the required and recommended timescales.

The contact details provided will be used to confirm if your application has been successful or unsuccessful.



Risk for each field has been defined by assigning scores to the the following criteria:

Karstic feature present in field; SPZ 1 and Groundwater Nitrate Risk High are each given a score of 3
Karstic feature present in Catchment, SPZ 2 and Groundwater Nitrate Risk Medium are each given a score of 2
Karstic feature absent, SPZ 3 and Groundwater Nitrate Risk Medium Low - Low are each given a score of 1.

Risk scores for each land parcel are then combined to produce an overall risk score out of a potential 1 to 9.

Categorisation of risk level:
1-4 = Low
5-6 = Medium
7-9 = High

Fields outside SPZs have no risk score applied.