

Pilot trials

Portsmouth Water have funded and instigated numerous in-field trials over the past 5 years, ranging from cover crops to undersowing maize.



Why do we undertake pilot trials?

... to understand new and innovative measures and techniques to reduce nitrate leaching and improving water quality whilst ensuring financial viability of these measures for farmers.

Information on these trials can be found on the Downs and Harbours Clean Water Partnership.

Trials and Research | cleanwater (cleanwaterpartnership.co.uk)

Useful contacts



catchment.management@portsmouthwater.co.uk



csf.southeastthames@naturalengland.org.uk

Environment Agency Incident Hotline (24-hour service)



0800 80 70 60

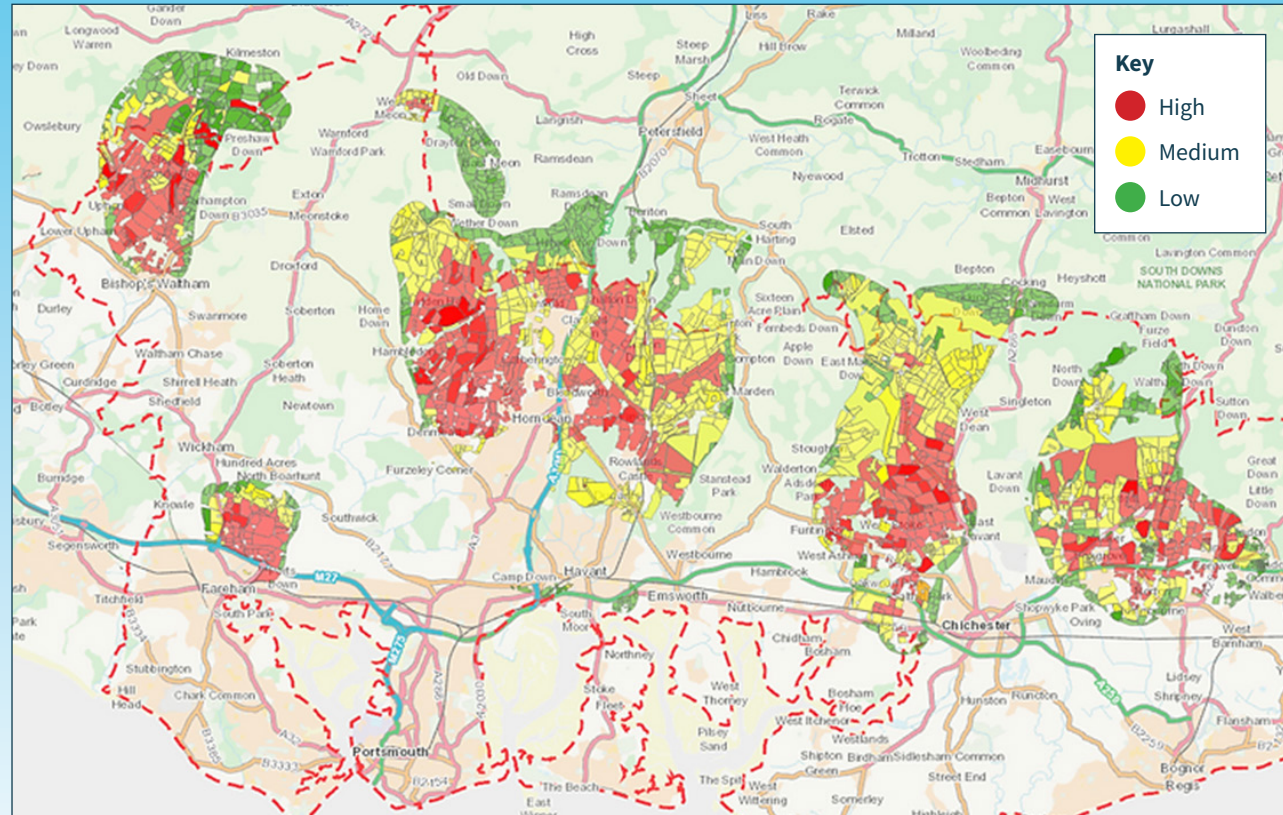
Partners



Downs & Harbours
Clean Water
Partnership



WHO IS ELIGIBLE?



- We prioritise working with farmers and landowners in the red and yellow areas - all options available.
- Soil / manure testing and nutrient management plan funding only (100%).



Excellence in water. Always.
Committed to a sustainable future together



PORTSMOUTH WATER CATCHMENT MANAGEMENT PROGRAMME

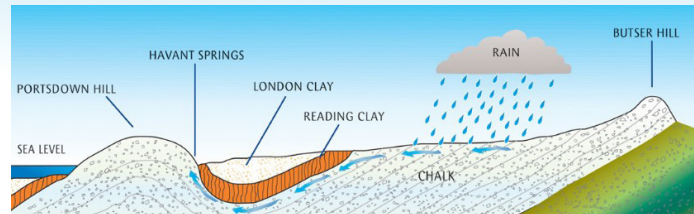


We are supporting farmers to improve water quality used for public water supply and to **HELP YOU SAVE MONEY!**

Where does our drinking water come from?

We supply drinking water to approximately 700,000 people. The water we provide is abstracted from the underground Chalk aquifers of the Southdown's, which are 'recharged' by winter rainfall. We use a series of boreholes, springs and the River Itchen to maintain supplies to our valued customers.

However, the Chalk aquifers are vulnerable to contamination due to their porous nature.



The Nitrate Issue

Nitrogen fertilizers are essential for the agricultural sector, but they can also cause contamination of groundwater. Nitrate is readily leached from thin soils into the Chalk aquifers below your farmland, which can impact upon the environment i.e. eutrophication of the Harbours, and also lead to the requirement to increase the treatment of drinking water, using energy/carbon intensive treatment processes.



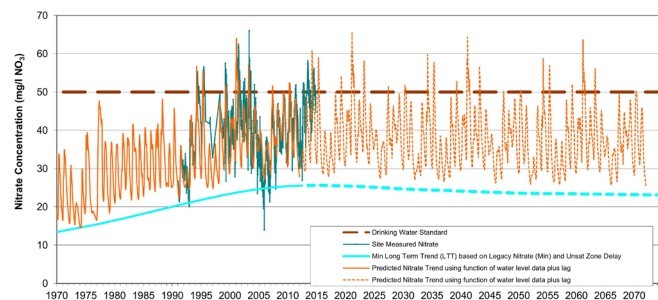
Losses of nitrate to groundwater also means you are losing money!

The nitrate we are seeing in groundwater now is the result of fertiliser applications back in the 1980s and 1990s due to long travel times from the land surface down to the groundwater stored in the Chalk aquifer. The work we are undertaking now is to reduce the nitrate peaks & protect water supplies in the future.

The Nitrate Issue – nitrate data trending

Complex modelling has been undertaken for our catchments using scientific methods. This has resulted in predictions of when nitrate concentrations may reach their maximum. The graph below shows predicted nitrate concentrations (**orange line**) going into the future for one of our abstractions. The **teal line** is actual measured concentrations.

As you can see nitrate is expected to peak in the 2030s/2040s and remain high until later in this century.



Financial benefits for farmers

Nitrogen fertilisers are expensive. Therefore 'Nitrogen Use Efficiency' (NUE) is important for your farm profitability whilst also helping to reduce losses to the environment.



Portsmouth Water has funding available for farmers who are located in the most sensitive areas to enable adoption of practices to improve NUE. The funded measures are available on our website.



ADVICE & SERVICES AVAILABLE FOR FARMERS

Soil Health

Soil health is vital for nutrient retention in soils. Healthy soils can store more nutrients and water, which can improve crop yields and quality. Soil health can be enhanced by practices such as adding organic matter, reducing tillage, rotating crops, and using cover crops. These practices can also reduce soil erosion and greenhouse gas emissions. By improving soil health, you can benefit from increased productivity and profitability, while also protecting the environment.

Nitrate Precision Farming

Nitrate precision farming is a method of applying the right amount of nitrogen fertiliser to your crops at the right time and place. This can help you reduce nitrogen loss and leaching, improve crop yield and quality, and protect the environment. Nitrate-based fertilisers and precision farming tools, such as sensors and digital maps, can help you measure and adjust your nitrogen application according to your crop needs. By using nitrate precision farming, you can make your farm more productive, profitable and sustainable.

Soil & Manure Testing & Nutrient Management Plans

Soil testing and nutrient management plans are essential tools for farmers who want to optimize their crop yields and protect the environment. Soil testing helps you determine the nutrient status and pH level of your soil, which can affect the growth and quality of your crops. Nutrient management plans help you apply the right amount and type of fertilizer at the right time and place, which can reduce costs and prevent nutrient losses. By following these practices, you can improve your soil health, increase your profits, and contribute to sustainable agriculture.

Farmyard Infrastructure

Farmyard infrastructure visits are essential for farmers who want to improve their productivity, profitability, and environmental sustainability. By investing in new equipment, technology, and infrastructure, farmers can reduce their costs, increase their efficiency, and enhance their animal health and welfare. Farmyard infrastructure visits can also help farmers access grants and funding from various schemes and programmes that support farming innovation and development. Therefore, farmyard infrastructure visits are a valuable opportunity for farmers to upgrade their farm business and benefit from the latest advances in farming.

Examples of Payment for Ecosystems Services (PES) measures

COVER CROP FOLLOWED BY FALLOW £400/Ha

Benefits: Financial; water quality; biodiversity; soil health; pest control

LOW NITROGEN INPUT TO IMPROVED GRASSLAND £250/Ha/Yr

Benefits: Financial; water quality

AUTUMN/WINTER COVER CROPS (TIERED DESTRUCTION) £80-120 Ha/Yr

Benefits: Financial; water quality; biodiversity; soil health

NITROGEN TESTING AND SPECIALIST ADVICE Fully funded

Benefits: Financial; water quality; soil health

NUTRIENT MANAGEMENT PLAN Fully funded

Benefits: Financial; water quality

Please visit our **Downs and Harbours Clean Water Partnership** website to view our PES handbook which has full details of our funded measures & payment rates:

www.cleanwaterpartnership.co.uk/grants-for-farmers

Capital Grants Scheme

We can offer you grants to help reduce the risk of pollutants reaching groundwater. The scheme offers grants towards standardised capital items e.g. sprayer wash down area and non-standardised items such as precision farming equipment. It focuses its funding on reducing nitrate from priority areas. Our CGS is currently closed until April 2024, when more funding will be made available. Full details will be available on the 'Downs and Harbours Clean Water Partnership' website.