

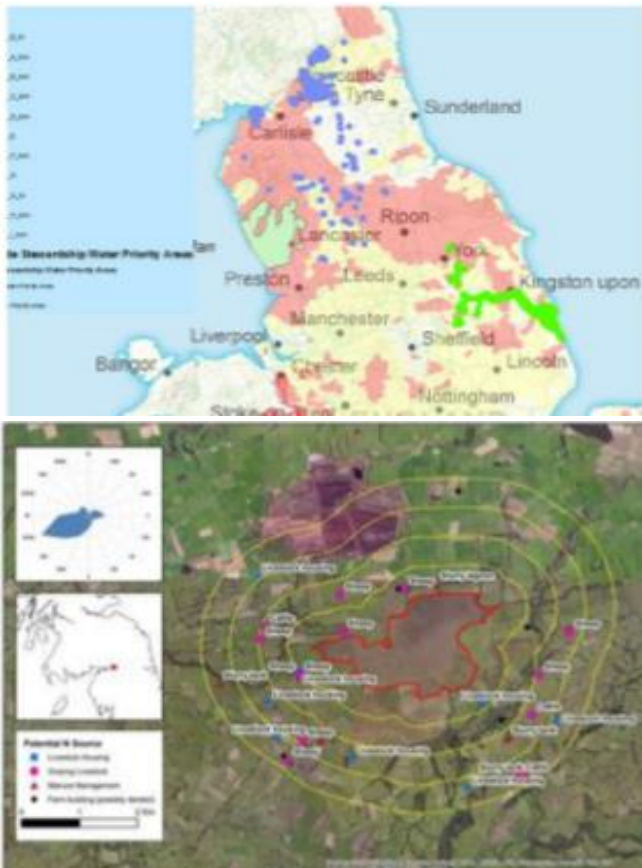


A clear solution for farmers

CATCHMENT SENSITIVE FARMING

CSF ammonia pilot in Cumbria

Catchment Sensitive Farming (CSF) has been piloting an approach to working with farmers to help tackle both water and air pollution in three CSF catchments where high priority areas for air (blue) and water (red) quality coincide. In the Cumbria pilot area



ammonia emissions from farming impact on sensitive habitats within the CSF priority area of the River Eden catchment, a Site of Special Scientific

Interest (SSSI), affected by diffuse water pollution from agriculture (see map).

Natural England gathered evidence of national and local sources of atmospheric nitrogen affecting the sensitive areas and worked with stakeholders to develop Shared Nitrogen Action Plans (SNAPs) to address the problem.

Ammonia emissions from dairy and livestock farms within a 2km radius of Bolton Fell and Walton Mosses SSSI (outer yellow ring on the photo) are being deposited as nitrogen on these protected areas causing nutrient enrichment, which is damaging the sphagnum moss habitat of Walton Moss (red ring on photo).

A range of solutions are being considered, including CSF advice to farmers on farm practices, grants to reduce the ammonia emissions from farming and use of agri-environment measures, such as tree planting.

Farm case study

There is a large intensive dairy unit with 2000 cattle and a slurry lagoon located adjacent to Walton Moss, upwind of Bolton Fell Moss and close to a beck in the Eden catchment. Natural England

commissioned a specialist advice visit for the farm that identified farm practices and infrastructure improvements, including covering the slurry store, spreading methods and farmyard works that would reduce ammonia emissions and water pollution.

The dairy farm has now installed a floating cover over the 3 million gallon slurry lagoon. The farmer reckoned that the lagoon would save him at



1 week's water savings after completion



least £6,500 in pumping costs alone, based on the amount of winter rainfall that would be prevented from entering

the lagoon. Actual savings are likely to be much greater from dealing with lower volumes of slurry and dirty water pumping and spreading due to year round protection by the cover.

Floating covers on slurry stores are estimated to reduce ammonia losses by 40% to 60% and fixed covers by 60% to 80% by reducing the ammonia volatilised in contact with air moving over the surface of the slurry. Reducing the volume of slurry and dirty water spread on the land also reduces the risk of water pollution from nutrients and faecal bacteria entering the watercourses.

The Catchment Sensitive Farming Officer (CSFO), Chris Turner, is continuing to work with farmers in the pilot area and across the Eden catchment, to make yard improvements to reduce yard run-off and ammonia losses from dirty yards. Several other farms in the pilot area have installed fixed covers to their slurry stores. Collectively, these actions will help reduce the ammonia emissions from farms in the area around Bolton Fell and Walton Moss and protect these rare, sensitive, habitats.

CSF offers farmers advice and support with Countryside Stewardship applicants for grants to farmers in priority areas.