



A clear solution for farmers

CATCHMENT SENSITIVE FARMING

Priority Catchment Targeting Summary March 2012 – March 2014

River Basin District: Severn

Catchment: North Somerset Moors + Chew Valley & Blagdon Lakes

Total Area: 1,250 km²

Reasons for Designation:

- Recorded Water Framework Directive failures for nitrate and phosphate which exceed permitted levels for drinking water (evidence from Environment Agency and Bristol Water monitoring data on nitrates, phosphates and sediments).
- High risk of leaching of nitrates to ground water and run-off to surface water due to soil type, slopes and high risk crops. Dairy farming is widespread in the catchment with corresponding high levels of inputs of inorganic fertilisers and slurry.
- Levels of Nitrate exceed EU limits for drinking water at Hillhead Springs (>70mg/l). This source is abstracted to Bristol Water's Line of Works.
- High risk of erosion of sediments and particle-bound phosphates due to soil type, compaction, slopes and high risk crops such as maize.
- Surface Drinking Water Protected Areas are also at risk due to algal blooms. Nutrient enrichment of Chew Valley and Blagdon lakes¹ from diffuse agricultural sources gives rise to cyanobacteria and algal blooms during the summer.
- Bristol Water sampling data has highlighted elevated pesticide levels (metaldehyde) in Chew and Blagdon Lakes. Slug pellet use on arable farms most likely source. Metaldehyde is very difficult to remove from the supply.
- Sites of Special Scientific Interest remain in unfavourable condition as a consequence of elevated phosphate in feeder rhynes. Puxton, Biddle Street and Tickenham + Nailsea Moor SSSIs designated for ditch flora at risk. Condition element for phosphate exceeded at Blagdon and Chew Valley Lake SSSIs. Although designated for birds, the lake sites remain sensitive to phosphate. Blagdon lake is now classified eutrophic due to elevated nutrients.

Priority Failing Water Bodies in North Somerset:

- Designated Nitrate Vulnerable Zone (NVZ) and Source Protection Zone (SPZ) for Chew Valley Lake, Winford Brook³ upstream of Chew Magna reservoir + Congresbury Yeo upstream of Blagdon Lake.
- Water Framework Directive Priority 1 catchments: Chew above lake³ + Winford Brook³.
- Water Framework Directive Priority 2 catchments: Congresbury Yeo¹.
- Surface Drinking Water Protected Areas: Chew valley lake³ and Blagdon Lake²
- Catchments upstream of at-risk SSSIs: Puxton Moor, Biddle Street within the Congresbury Yeo catchment together with Tickenham + Nailsea Moor¹ within the Kenn and Land Yeo catchments¹. Blagdon lake² and Chew Valley Lake³ SSSIs.

³ Phase 3 Current target area 2012-14. Bristol Water abstract from the Winford Brook at Chew Magna to Chew Valley Lake

² Phase 2 former CSF target area. CSF continues to offer advice upstream of Blagdon Lake.

¹ Phase 1 (former target area): CSF unlikely to revisit this area.

Objectives:

- To raise awareness of issues and promote change through voluntary measures.
- To reduce the loss of sediment and associated soil-bound phosphate particles through appropriate changes in land management and practical solutions or reversion to grassland on unsuitable arable fields. Identify high risk maize fields and promote adoption of appropriate strategies to minimize soil wash.
- To reduce inputs of phosphate and ammonia from diffuse agricultural sources such as dirty water run-off from yards through improved infrastructures. In addition to promote better management of slurries within high risk groundwater areas.
- Reduce inputs of fertiliser to reduce leaching to groundwater and run-off to surface waters by promoting best practice and calibration of machinery.
- Reduce risk of pesticide pollution through promotion of better pesticide handling, including dedicated filling, wash down areas and bio beds to treat wash water.

Delivery:

- Avon Wildlife Trust in partnership with CSF will offer advice on Entry Level Scheme and changes in land use to promote resource protection within Bristol Water's Chew and Blagdon lake catchments (including Winford Brook). This work underpins AWT's Mendip Lakes project.
- Priority farms within target areas will be offered manure and nutrient planning advice together with specialist soil management advice to help address nutrient and sediment associated with soil wash and run-off.
- In addition CSF will help fund calibration of machinery to promote better application of fertilizer.
- Bristol Water Safeguard Zones – Farms will be offered nutrient and infrastructure planning advice where fields lie within Ground water Source Protection Zones (SPZ) and within Safeguard Zones associated with surface water abstractions failing Drinking Water Protected Area objectives.
- CSF will continue to promote Bristol Water's free pesticide advice service within the Safeguard Zones.
- *CSF will continue to promote the Capital Grant Scheme to improve infrastructure and help address specific issues within the phase 3 target area only.*
- *CSF will continue to offer support and advice to farms within the North Somerset area on referral by the Environment Agency following pollution incidents*
- To continue to influence voluntary changes in practice through events and farming groups within the catchment.

Targeting Map

