

# Restoring the Penk Catchment

**Who:**

Staffordshire Wildlife Trust

**What:**

The Collaboration on the Restoring the Penk Catchment project was funded through the Water Environment Improvement Fund. Habitat improvement work and Rural Sustainable Drainage System (RSuDS) works were carried out.

**Where (site, catchment, river basin):**

River Penk, Whiston Brook Catchment, Humber.

**NGR:**

Lapley – SJ 888 163

Bradley – SJ 867 126

Ivetsey Bank – SJ 848 109

River Penk – SJ 906 118

**Wider context:**

Due to agricultural diffuse pollution and poor habitat provision for fish and invertebrates, the Penk catchment is failing to meet the requirements of the Water Framework Directive. Therefore the project focused on one of the River Penk's tributaries, the Whiston Brook.

The Whiston Brook catchment as a whole is suffering from elevated phosphate levels as a result of agricultural diffuse pollution. Furthermore, the catchment contains Motte Meadows, a Site of Special Scientific Interest (SSSI), a Special Area of Conservation (SAC) and a National Nature Reserve (NNR). Unfortunately, some areas of the site are suffering from phosphate enrichment therefore Natural England have produced a Site Improvement Plan that commits the Environment Agency to deliver measures to prevent nutrient-rich water entering the Motty Meadows Brook (a tributary of the Whiston Brook).

**Objectives:**

The main aim of the project was to improve

**When:**

September 2016 – March 2017

the water quality of the Whiston Brook, located to the west of Penkridge by reducing the amount of phosphate and sediment entering the watercourse. This was carried by the end of March 2017 by undertaking various Rural SuDS projects across the catchment to create new water features and enhance grassland and wetland habitats.



Lapley before (December 2016)



Lapley after (April 2017)

**Outputs:**

3 Rural SuDS projects were carried out at Lapley, Bradley and south of Wheaton Aston, covering approximately 2 ha.

1 cattle drinking bay was created.

450 m fenced buffer strip with riparian tree planting along a tributary of the Whiston Brook.

1.87 km fenced buffer strip along the River Penk with appropriate riparian tree planting. 1 ha of species-rich green hay strewing was carried out across the 2 sites at Lapley and Bradley.

A 3 minute drone video was created to publicise the work carried out.

Forthcoming Countryside Stewardship (CS) Higher-Tier application on 105 ha in the catchment and 2 Mid-Tier applications on 2 landholdings of 307 ha and 485 ha in the catchment.



**Bradley before (December 2016)**



**Bradley western swale after (March 2017)**

#### **Outcomes:**

A CS Mid-Tier application was submitted for a 330 ha intensive dairy farm in Marston which borders Motte Meadows SAC. This has incorporated riparian buffering and fencing

of Motte Meadows, seasonal livestock removal on intensive grassland on fields surrounding the site and various water capital grant options were included around the farm buildings, such as guttering, sediment traps, cross drains and roofing the young stock shed, to address some issues highlighted from a Farm Infrastructure Audit carried out in 2016.

#### **Cost:**

Staffordshire Wildlife Trust - £20,000;  
Environment Agency - £50,000

#### **Benefits:**

Improving the water quality of the Whiston Brook by reducing the amount of sediment and therefore phosphates from entering the tributaries of the watercourse.

Creating and restoring grassland and wetland habitats in Bradley and Lapley to provide new opportunities for a range of wildlife and restoring/improving habitat for fish provision along the River Penk and tributaries in areas near Wheaton Aston and Congreve.

Educating landowners on ways to improve water quality.

#### **Lessons learnt and Next Steps:**

This area is within the landowner led Whiston Brook Catchment Group, which is part of a 5 year Natural England CS Facilitation Fund project set up in October 2016, aiming to help landowners and local groups deliver improvements to water quality and wildlife habitats within the area, tackling issues at a catchment level.

We have found the integration between the Facilitation Fund and this EA funded project very helpful. This is due to landowners within the Whiston Brook catchment meeting up 4 times a year to discuss issues in the catchment as part of the Facilitation Fund project, which has identified priority sites for us to work on for other water quality improvement projects such as Restoring the Penk Catchment.

**Appendix:**

Additional photographs of the work completed.



Lapley gateway before (December 2016)



Lapley gateway after (April 2017)



Bradley eastern swale before (December 2016)



Bradley eastern swale after (March 2017)



Tributary of the Whiston Brook before (March 2017)



Tributary of the Whiston Brook after (June 2017)