

CATCHMENT PROJECT: Staffordshire Trent Valley, England

Over the past 25 years Staffordshire Wildlife Trust and the Environment Agency have worked with a multitude of partners to carry out over 100 river and floodplain restoration projects throughout the Trent river system in Staffordshire. The emphasis has been to design schemes that ‘trigger’ dynamic natural processes. To achieve this we bring together science teams comprising of geomorphologists and ecologists to help design, implement and monitor our interventions.

Many of the schemes have been innovative and experimental. Here are some example projects which are themed: Urban, Headwaters and Floodplain Rivers.

Urban

The Trent has a tough start in life as its headwaters run through the conurbation comprising of Stoke, the Potteries and Newcastle-under-Lyme. Through our SUNRISE project we completed reach restoration to help re-naturalise watercourses and create corridors for wildlife movement.

Staffordshire University. A heavily engineered reach of the Trent was restored with split channels and backwaters and encouraged to connect with a wider area of the riparian zone.

Victoria Ground. A visionary and ambitious scheme was completed at the site of the old Stoke City football ground. The River Trent was moved away from its concrete straight jacket and given a new, more naturalised course. This new channel also bypassed two weirs.

Weir Removals. Fish passage and the natural function of the River Trent through urban parts of Stoke was also enhanced through the removal of weirs at Bucknall Park, Cromer Road and the Victoria Ground.

Tributary streams & Headwaters

Intact headwater streams are the key to the health of our main rivers. They supply clean water, sediment and nutrients and are, in themselves, biodiversity hotspots. The partners have carried out schemes to protect and enhance over 22 kilometres of these stream corridors.

Cannock Chase Forest Streams. We have worked with Forestry England, Staffordshire County Council and private landowners to increase the volumes of wood in streams to benefit globally-endangered White-clawed Crayfish, rare invertebrates and fish.

The Churnet Valley & the South West Peak With partners we have selectively ‘ChopnDropped’ and winched bankside trees into watercourses and ring-barked trees to increase the dead wood resource in riparian zones. We were also first to use Engineered Log Jams in the UK to protect roads and a railway.

Floodplain Rivers

Reach restoration along a 18 kilometre length of the Trent is continuing through our Transforming the Trent Valley landscape partnership. Techniques include river widening at Croxall, floodplain lowering at Tucklesholme, mid-channel bar and chute channel creation at Ryelands, and the UK's largest river island restoration at Cherry Holme.

There has been tremendous variety to these schemes which have seen new and pioneering approaches to river restoration and land management. The key to success has been partnership working: to achieve quantifiable and beneficial outcomes for diffuse pollution, weir removals, gravel pit restoration, improved river dynamics, benefits to wildlife, water quality, soil protection, groundwater recharge and the reduction in downstream flood risk within a principally industrial and agricultural dominated landscape. This work is making a significant contribution to restore degraded rivers and floodplains to benefit nature's recovery and people in the Staffordshire Trent Valley.

Key Partners logos (& Order):

Staffordshire Wildlife Trust, Environment Agency, Transforming the Trent Valley, Central Rivers Initiative, CaBA, Staffordshire Trent Valley Catchment Partnership, Wild Trout Trust, Dynamic Rivers, University of Salford, Forestry England, Natural England, Staffordshire County Council, Stoke-on-Trent City Council, Hanson