Catchment Restoration Fund Project Briefing Note

Colne Water Restoration Project

Colne Water Restoration is a partnership project that will use CRF funds to improve watercourses in an area of the Ribble Catchment that is intensely farmed and urbanised. Some river channels have been heavily modified during the Industrial Revolution.

Diffuse pollution, a lack of riparian habitat, unnatural flow regimes attributable to upland drainage and obstructions to fish passage are causing certain watercourses in the Colne Water Catchment to fail to meet the required standards under the Water Framework Directive (WFD). Fish populations, particularly salmonids, have been found to be greatly diminished.

To ensure that the failing waterbodies achieve Good Ecological Status under the WFD, the Ribble Rivers Trust aims to improve the habitat and connectivity in order to generate sustainable fish populations. The creation of riparian buffer zones will reduce diffuse pollution from farmland and roads, and some upland drainage grips are to be blocked to encourage a sustainable return to natural flow regimes.

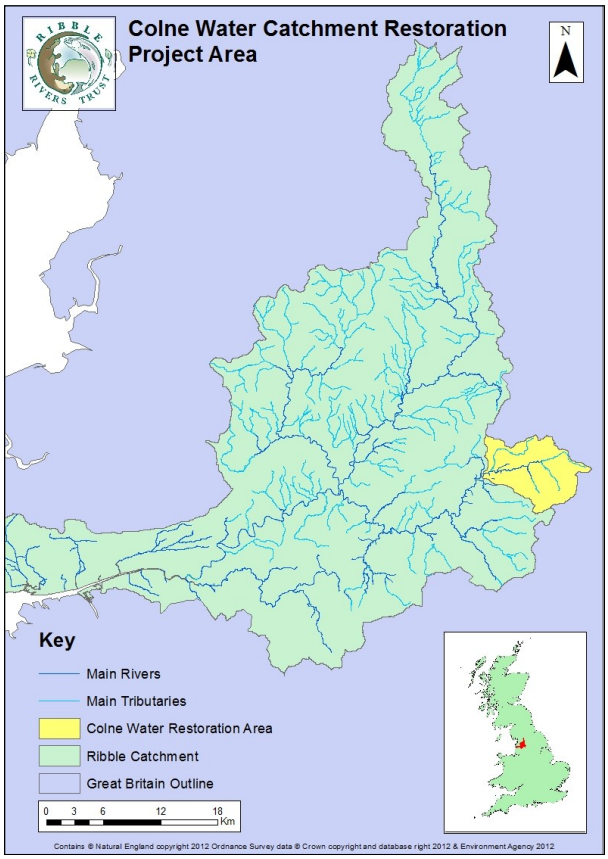
Through restoration work, the project will address issues including:

- Unnatural flow regimes caused by upland grips.
- Sediment which has a direct adverse effect on water quality.
- Barriers to fish migration, preventing fish from reaching habitat that modelling shows they should be present in.
- Interrupted natural downstream movement of substrate which reduces spawning habitat for salmonids.
- Fertiliser run off into rivers which can cause nutrient enrichment and impact negatively on river ecology.
- Expected rise in river water temperature associated with climate change.
- Failed bathing water standard in coastal reaches due to presence of excess pathogens attributable to upstream sources.

Key facts	
River Basin District	North West
Catchments	Calder
Outcomes	**Natural flow regimes -** a reduction in peak and low flows. **Improved biodiversity -** increased riverine habitat, connectivity and re-naturalisation. **Improved river water quality -** reduced diffuse and point pollution sources. **Improved bathing water quality -** reduction in pathogens from rural sources. **Social -** improved environment for recreation. **Economic -** improved inland fisheries and estuary shell fisheries. **Climate change mitigation -** carbon sequestration and shading of watercourses.
Start Date	1st July 2012
End Date	31st March 2015
Budget	£903,400 (£675,200 from CRF)
Project Partners	Colne Water Angling Club, Pendle Borough Council, Durham University, Woodland Trust, Forestry Commission, Environment Agency, Lancashire Wildlife Trust, 'Friends Of' groups, Hanson Cement.

Description of Works

To tackle the issues faced by the Colne Water Catchment, the project will manage delivery of the following activities:



- **Restoring natural hydrology** - the presence of man-made grips on the moorland above Colne has resulted in changes to the hydrology of the catchment. The blocking of certain grips will help to restore natural flow regimes, reducing the frequency and intensity of peak flows and increasing baseline flows. It will also aid in reducing diffuse pollution. In the first instance, the project will run a model to assess and prioritise the grips which require blocking.
- **Fencing** - where agricultural practices are causing the watercourse to fail to meet WFD standards, riparian fencing and associated drinking points will result in multiple benefits. The poaching of riverbanks by livestock will be reduced, as will the associated excess sediment inputs. Vegetation will become re-established along the riverbanks, therefore increasing riparian habitat and biodiversity. This will result in the establishment of a buffer zone that will reduce the amount of nutrient run-off that enters the watercourse from farmland and roads. It will also aid in reducing pathogens in the water that may cause Bathing Water Directive failures in the Ribble Estuary and along the Fylde Coast .
- **Tree planting** - where there is sufficient area between the fence and the watercourse, native trees will be planted to provide additional bank stabilisation and habitat. Once matured, the trees will also create shading over the watercourse and reduce the effects of the expected rise in water temperature attributable to climate change. If the planting area is sizeable, this could result in financial benefits to the farmer/landowner.
- **Reconnecting habitat** - where an obstruction to fish passage exists within the river channel, the project will look to remove it or make it passable. This will not only open up more habitat to migratory fish, but where removal occurs it will also return the sediment movement to a more natural regime.
- **Community engagement** - this is essential to the long term success of the project as it encourages local ownership and support. It is seen as an integral part of an integrated catchment management approach. Engagement activities will include public consultations, practical volunteering activities like river clean-ups, wildlife surveys and tree planting, and awareness raising through walkover surveys and appraisal tours.

What will success look like?

As a charitable organisation, the Ribble Rivers Trust want to work with farmers, landowners and other associated partner organisations to ensure that our priorities are aligned in order to achieve land management solutions that benefit both people and the environment. Through education, we hope that farmers and landowners will take ownership of the issues affecting their watercourses, ensuring that they understand their direct and indirect dependence on these natural resources and the services they provide. Our principal aim is to see watercourses in the Colne Water Catchment achieve Good Ecological Status under the Water Framework Directive. This will mean a return to natural flow regimes, improved water quality, increased riverine habitat and reconnected habitat, ultimately resulting in a better river environment that can sustain greater biodiversity. It is also hoped that these improvements will impact positively on the bathing water standards of the North West coastal regions.

About the team - Ribble Rivers Trust
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