

## Work underway to remove tonnes of plastic from West Cumbrian river

The first phase of a £1.5m partnership project between West Cumbria Rivers Trust and the Environment Agency, which aims to remove a huge plastic liner installed in the bed of the River Keekle approximately 25 years ago, has begun.

Not only will the project remove the 2.5km of plastic, which currently poses plastic pollution and erosion risks, once complete, the project will allow the river to function more naturally, improve habitat and biodiversity and improve river access for local people to allow them to enjoy their local natural environment once again.

If nothing is done to prevent erosion and further degradation of the river, there could be further reduction of water quality and pollution to the River Keekle (one of the most constrained rivers in Cumbria) which could also impact one of the most important rivers in Europe further downstream (the River Ehen Special Site of Scientific Interest and Special Area of Conservation).

Contractors 'Open Space' are carrying out the physical works on site on behalf of the Trust.

Luke Bryant, Project Manager from West Cumbria Rivers Trust, said:

We have started work on the first phase of the River Keekle Restoration Project on approximately 170m of river channel and work should last a few weeks.

Phase one of the project involves detailed studies, monitoring, project design, community liaison and getting the contractor to remove the plastic from approximately 170m of river as a trial to ensure we are working correctly and effectively, before the second phase of full removal, begins in 2020.

It's a huge and complex project with lots of unknowns, such as how far the liner goes into the river bank and what lies underneath, so it needed to be carried out in two phases.

Once the liner is removed, cobbles/stone/gravel will be placed onto the riverbed in place of the plastic, re-naturalising the river and providing protection from vertical erosion. This will allow the

river to function more naturally and improve habitat and biodiversity.

We also plan to improve river access for local people to allow them to enjoy their local natural environment once again.

The project is part of the River Restoration Programme in Cumbria – one of the biggest portfolios of river restoration projects in the UK.

Oliver Southgate, Environment Agency River Restoration Programme Manager, said:

This is likely to be the most significant river restoration project delivered in the UK this year – we have never seen this much plastic in a river before, or as degraded!

The Upper Keekle is one of the most degraded sections of watercourse in the UK and is classed as a failing river, so by putting the river back to a natural state and directly improving 2.5km of river and opening access to a further 4km, we aim to improve the whole water environment in this area with multiple benefits for people and wildlife.

We are continuing our work to improve water quality, which is now better than at any time since the Industrial Revolution thanks to tougher regulation and years of hard work by the Environment Agency and others.

Removing the plastic now prevents the material entering our oceans in the future and the river will be left in a much more natural condition, improving the habitats for Salmon, Trout and other fish species as well as removing the threat to the River Ehen SSSI/SAC further downstream.

Once the plastic has been taken out of the river, it will be tested, and the aim is for it to be recycled and also used for something as part of the project, such as a boardwalk, if possible.

The area used to be used for coal mining operations and when these ceased, it was thought that lining the river would prevent the river bed from eroding. Plastic was used to contain and control surface water due to it being a flexible, impervious and resistant material. At the time, this type of plastic had been used extensively for landfill lining.

The Environment Agency have undertaken a significant number of surveys to check what lies beneath the river bed and to check water quality. Once the plastic is removed, we aim to introduce a range of natural materials like stone, which will allow the river to actually recap itself overtime and prevent further bed erosion. Phase one of the project is funded by the Environment Agency and is costing £175,000. Phase two has been awarded £1.3m by the European Agricultural Fund for Rural Development's Water Environment Grant.