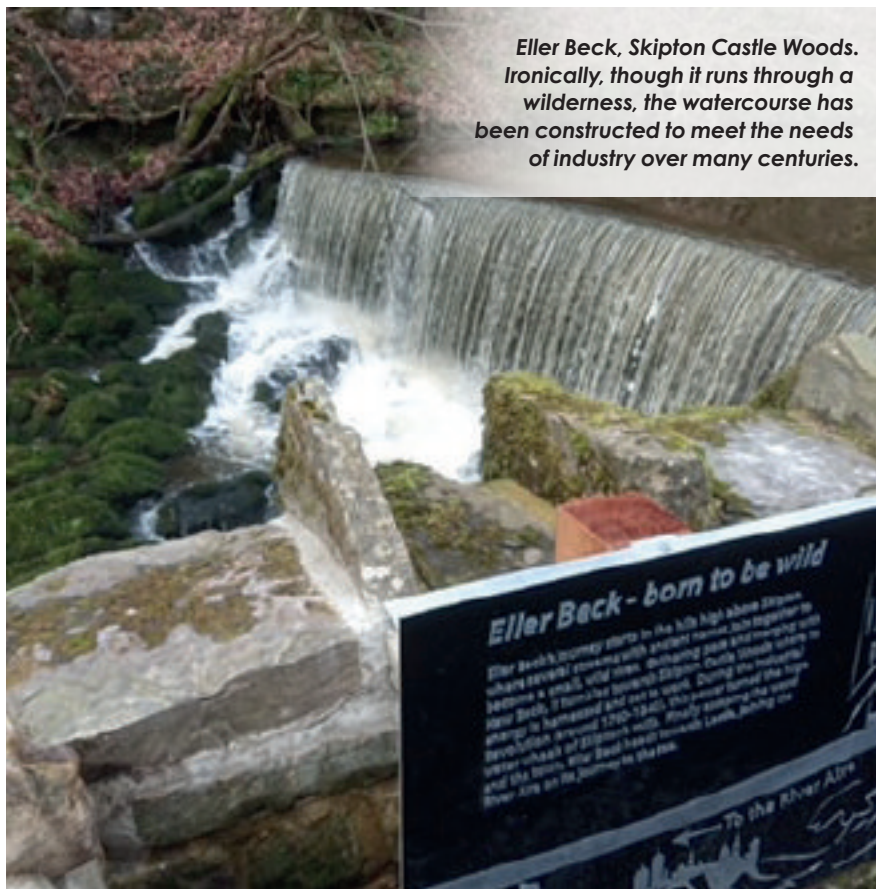


Its Original Course

Conservationist Jonathan Gray argues that we should go with the flow when it comes to managing our riverside habitats.

"We need to get the river back to its original course..." I'll be blunt: I loathe statements like this! I said as much in my presentation 'Wharfe Woes and Trout Tales' at the sell-out Friends of the Dales conference 'From Peat to Paddling' in 2022.

For hundreds of years, we have been wrestling with the power of water to harness that power for industry or try to get rid of what we deemed excess water from the land to 'improve' it for agriculture. The result: straightened channels — effectively pipes — frequently perched in an unnaturally high position within the valley. Millions of tonnes of boulders and rocks have been shifted to pin these channels in position, frequently dug from the riverbed itself, thus artificially deepening and severing the connection laterally between those channels and their floodplains. To add insult to injury, we've then built walls across these channels to hold back water to provide the 'head' for waterwheels or turbines, thereby severing the connection longitudinally and impeding the movement of fish and sediment.



Eller Beck, Skipton Castle Woods. Ironically, though it runs through a wilderness, the watercourse has been constructed to meet the needs of industry over many centuries.

Much of our natural heritage is disappearing at an alarming rate due to the lingering legacy of the Industrial Revolution. Most historical works are redundant or rapidly approaching the end of their lifespans, unable to cope with the plethora of change we have unleashed on the landscape. Weirs and bank revetments are collapsing (including Gargrave Weir, 2021) or teetering under the onslaught of increasingly intense winter spate flows resulting from misguided works upstream, which simply convey water and its associated power more quickly downstream. On the flip side, with warmer and drier springs and summers, is getting rid of the water from the landscape as quickly as possible such a good idea?

Breaking The Chains

The more holistic approach to both reducing flood risk and improving riverine habitat is to 'slow the flow', remove the barriers and allow the river to access its floodplain, wherever possible in our crowded landscape, and return the channel to a more natural course.

The water in a wandering river, which can move dynamically, takes longer to get from A to B. It is better connected to its floodplain (meaning better storage during the wet and the dry), more physically and hence biologically diverse, and it will once more be able to access important sediments that it might have laid down centuries or millennia previously. Yes, there will be erosion, but there will also be deposition, and we should embrace these natural processes, not fight them.

I'm not averse to a good 'rewiggling' - the phrase the media have jumped upon to represent returning a river channel to a more meandering form. Many rewiggling projects use a paleochannel, the ghostly depression of a former channel position, as the basis of a restoration. Wherever we can, we need to take the shackles off and allow river channels to return to wander freely in both space and time across their floodplains.



Channelling Ghost Rivers At Airton

Modern constraints in the landscape limit the extent to which we can allow larger channels to re-naturalise in such a way, but it can be done. On the River Aire just south of Airton, I have been working with a landowner to improve lateral connectivity. Paleochannels were evident in the fields on either side of the existing, artificially straightened channel, and where the old and new channels crossed paths, the old had been blocked off with stone robbed from the riverbed.

We have not rewiggled here per se. Instead, we have dug out all the stone plugs and returned them to the channel as well as lowering the bank in places. Elevated flow following rainfall can now spill out onto the floodplain more easily, dissipating flow energy and fine, life-giving silts across the floodplain and allowing retention of gravel within the main channel, making better habitat for invertebrates, for fish, and for those species that feed on one or the other. The resultant wet(ter) meadow habitat is relatively

rare in the Dales, and will now be managed via conservation grazing (low-density cattle) to promote the wildflower flora and wader nesting habitat: win-win.

In isolation, the Airton project might have only relatively localised impact, but it links laterally and longitudinally to many other seemingly small projects. Within a 1.25-mile radius, under the aegis of the Upper Aire Project, I removed the redundant and collapsing Newfield Bridge weir downstream, thereby allowing free access for migrating fish, while project partners have planted 2.5 miles of hedging and one hectare of woodland, created three leaky ponds to slow the flow, and improved soil health over 53 hectares by mechanical aeration.

The above work was progressed only after consultation with the relevant authorities and with appropriate permissions.

To find out more, please visit www.wildtrout.org



Courtesy of *Friends of the Dales* membership magazine, *Yorkshire Dales Review*.

Visit: www.friendsofthedales.org.uk