



Frimley Hatches Rivers Week Report, Sept 2017

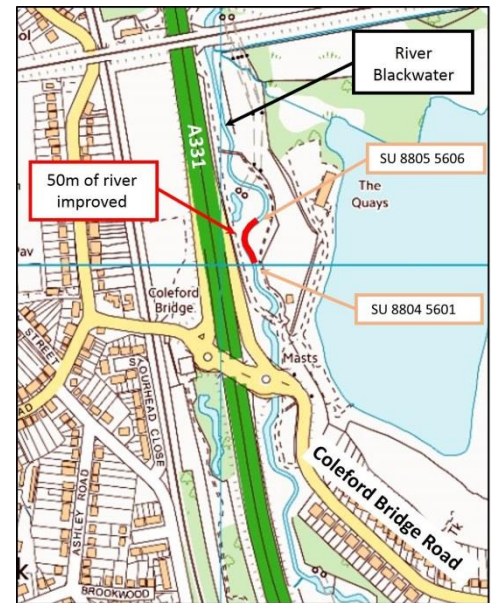
Frimley Hatches

This year we built on our experience of improving the river along the Blackwater Valley, by again jointly hosting the Loddon Catchment Rivers Week. This series of tasks coordinated by the Loddon Catchment Partnership, aims to enhance river habitat and raise the profile of river improvements. One of our three tasks was at Frimley Hatches.

Frimley Hatches runs along the east of the A331 and north of Coleford Bridge Road. Large portions of the River Blackwater channel were redirected to make way for the adjoining Blackwater Valley Road.

Rationale for our river improvements

We've been working closely with the Environment Agency (EA) on river enhancement projects for many years at Frimley Hatches. In 2012 Dominic Martyn, the then Loddon Technical Officer for Fisheries at the EA, helped us create the Frimley Hatches River Restoration Plan. Many of the 25 tasks have already been achieved, including creation of riffles (small rapids) and installation of 12 locations of woody debris.



Positioning and fixing WD4 and WD5

These logs or brash were fixed to the river bed to diversify the flow of the river. Especially where the channel has been straightened, the river is often wide and slow flowing, which produces excess sedimentation and silt. The woody debris can speed up the water, scouring off the silt to expose the underlying gravels, which is ideal for fish spawning and the areas of slack water create niches for fish fry to shelter and invertebrates.

Our 2017 river improvements

This year rangers and 14 volunteers installed 5 woody debris features at location 25b*, from WDI at SU 8804 5601 downstream to WD5 at SU 8805 5606.

Installing woody debris

Working from the west bank we started upstream at WDI, hammering in chestnut stakes. These posts were sustainably sourced from the volunteers at Rowhill Nature Reserve, since chestnut is one of the most resilient types of timber to use in water projects. Logs were wired to the stakes to fix them in place, and the stakes topped off.

As we used at Hawley Meadows all our woody debris was fixed facing upstream, since this directs the flow into the middle of the channel. Please see the Rivers Week Report for Hawley Meadows for more information.



Fixing logs to create WDI



Duncan and Moragh installing WDI

Working downstream we found it easier to lay bankside trees into the channel, this technique is similar to hedge-laying where the base of the tree stays attached to the stump. This had the distinct advantage of requiring less posts to secure the woody debris, and on WD2 we managed to locate all our posts on dry land which made working easier.

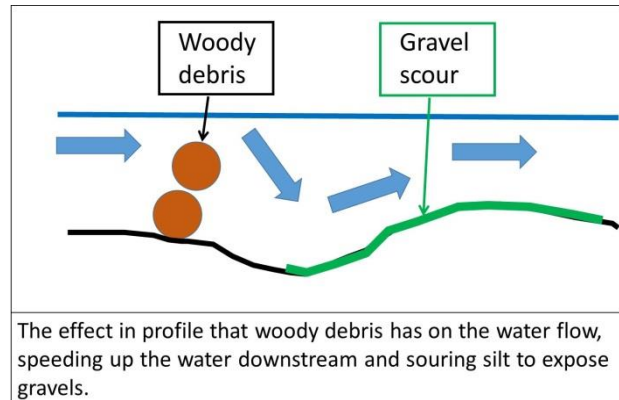
Once we'd laid the trees into the channel and I'd tested the water depth for safety, the team set to work securing the woody debris with chestnut stakes. We found it useful to use branch forks on the tree to lock the stakes in place, whilst we pruned the canopy so it extended less than half way across the channel. In places the underwater branches were holding the main trunk out of the water, so we did some more pruning and laying to fix the tree lower in the river. With experience we learnt to prune off the standing tree side branches facing the water, prior to laying the tree.



Chris and Andrew fixing WD3 in the channel

The day went really well with all 5 items of woody debris installed. Since all the woody debris has directed the main river flow towards the eastern bank, the faster flow by the far bank made wading in the river markedly more hard work. This narrower channel should extend the area of gravel beds that are exposed by the silt being scoured off. This gravel is ideal for fish spawning and also the calmer backwaters create further niches for wildlife such as juvenile fish and invertebrates.

When I returned a day later I was delighted to see a small patch of gravel scour already created downstream on WD3. This is due to the often confusing dynamic way water flows around an obstacle. When viewed from the side, woody debris can create a plunge-pool downstream, like from a mini-waterfall. The faster flow can then scour silt off a strip on river bed some way downstream (see diagram).



View downstream of WDI to WD3

Future Ambitions

Our plan over the coming years is to monitor the river restoration around WDI-5 (25b *) and complete the remaining river improvements identified in the 2012 plan.

Thank you to all the rangers, volunteers, Moragh Stirling at the South East Rivers Trust her help securing the necessary EA permits, and to the Loddon Catchment Partnership for coordinating the tasks. Also thank you to Steve Bailey, BVCP Manager who has been instrumental in creating our vision for river improvement along the Blackwater Valley and planning the works.

* Woody Debris feature location described in the “Frimley Hatches River Restoration Plan”, 2012, *Dominic Martyn, EA*.

If you’d like to find out more about the benefits of woody debris, take a look at “Woody debris and trees near rivers: A guide for landowners”, August 2017, *issued by the EA*.

Report created by
Stuart Croft, Acting Senior Ranger BVCP
stuart.croft@hants.gov.uk, 01252 331353