

PROTECT-NFM NEWSLETTER

Issue 03 | Sept 2018

Well I hope you all enjoyed a fantastic summer, we take credit for that because the drought started pretty much as soon as we finished installing flow monitoring equipment on Bleaklow. Thankfully we escaped the moorland fires and it has now started raining again so we are looking forward to a wet autumn and a steady flow of discharge data!

Telemetry installed at Urchin Clough site

In July we were able to get back onto the Urchin Clough site (where the gully blocking experiments will take place by permission of Mossy Lea Estate) to finish setting up monitoring for the pre-blocking period. Unfortunately it took until early September for there to be enough rain to get the weirs flowing again and to get a few teething troubles ironed out. We do now however have live telemetered data from the site measuring flow at 12 weirs and water table at 24 dip wells. The plot below is a screen shot of the telemetry data for weir 12 for the period last month showing wetting up in mid-August and the return to normal hydrographs in September.

One frustrating but interesting aspect of this work is that at a couple of the weirs flow is partially diverting around the weir through peat pipes and there have been step changes in water table in some dipwells. The data suggests that new pipes have opened up during the process of wetting up after the extended summer drought period. More work for the team in that we have to plug these leaks and reset dipwells but interesting in that this seems to suggest that drought and rewetting lead to reorganisation of the pipe network in the peat.



Modelling Work Package

Work package 3 which is the modelling work kicks off in November. Dave Milledge is leading this work from the University of Newcastle and is currently advertising for a post-doctoral fellow to take responsibility for the modelling effort. If you know any likely candidates do please let them know.

Flow Monitoring - Glossop catchment

The Glossop catchment is a key focus of model development work for Protect. In order to calibrate the modelling work we need detailed flow measurement from the catchment. We are installing seven new flow gauging points in the catchment in addition to the long term EA gauge at the Manchester Chemical works. Three of these are now in place and recording and installation of the remainder is ongoing. Many thanks to Glossop Golf Club and the 3rd Glossop Scout Group for permission to install equipment on their land.



Checking out flow monitoring sites in Glossop with the EA hydrometry team

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Equipment installation on Kinder Scout

Over the summer with the assistance of project partners Moors for the Future we have flown materials onto Kinder Scout to refurbish the Making Space for Water experimental sites and for the construction of new weirs which will allow us to assess flow velocities in restored gully systems. As part of this work we will install telemetry on all the current measurement sites which will be a big gain in terms of reducing the frequency of winter fieldwork in this challenging location. Currently this work is held up by changes in the Natural England permissions process but we are hopeful that installation will happen in the autumn.



Materials for Weir installation ready to be flown onto Kinder Scout

Summer interns join PROTECT team

Over the summer the Protect team has increased by two as Alexandra O'Brien and Liam Curran have joined us. Alex and Liam are Manchester undergraduates who have been supported to work on the project as interns. This has been funded by the university as part of the 'Learning Through Research' Liam and Alex have made an invaluable contribution. They have played a major role in the summer fieldwork programme, begun to analyse data from the Urchin Clough catchment and completed analysis of 2017-18 data from the Kinder Scout sites. They have been a great addition to the team and we hope they will continue to work with Protect on a casual basis.