

PROTECT-NFM NEWSLETTER

Issue 04 | Dec 2018

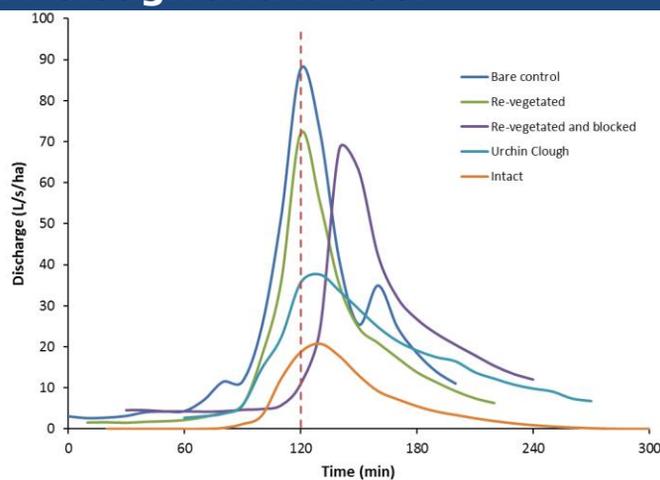
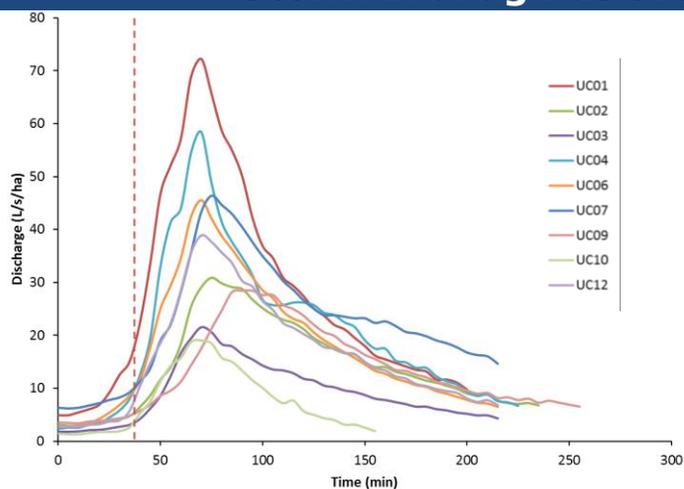


It's been a tough old year in the uplands with snow through till April and the drought and devastating fires over the summer, so it was a relief when winter arrived in all its drizzly glory. It's great news for our baseline monitoring at the gully blocking and *Sphagnum* reintroduction field sites as we finally have data to play with, some of which is presented below. We've been busy sifting through our spreadsheets to try to figure out which sites should be used for the different experiments and which will make the best controls... answers on a postcard please! It's good to be able to end the year on a positive and productive note, and we look forward to updating you on our progress in the new year.

Wishing you all the happiest of Christmases – *The Protect-NFM team*



Storm Bronagh at Urchin Clough and Kinder



Storm Ali barely touched our area of the Pennines, but we got the full force of Bronagh to make up for it. We had more than 60 mm of rain over 24 hours, with half of that falling over a three hour period to produce the lovely hydrographs you can see above. The graph on the left shows all of the catchments we're monitoring at Urchin Clough before gully blocking goes ahead next year, and the one on the right compares a typical UC site to our long established restoration monitoring sites on

Kinder. The red dotted line shows when maximum rainfall intensity occurred. On the whole, the UC sites produced lower peak discharges than our restored sites, with similar lag times to our intact site. Our site that was gully blocked six years ago produced the longest lag time, so it will be interesting to see the impact blocking has on lag at UC. This is of course only one storm, so we shouldn't read too much into it, but some interesting initial observations nonetheless!

Upcoming events

- 15 Jan Protect-NFM Steering Group meeting, University of Manchester
- 7 Feb NERC-NFM modelling workshop, Lancaster University
- 24-25 Apr BHS National Meeting in conjunction with the NERC NFM programme, *Natural Flood Management: Engaging UK hydrological researchers*, Lancaster University. All welcome, details to follow in the new year
- 1-5 Jul IALE World Congress, Milan, Italy, [Working with Natural Processes: Co-benefits at the Landscape Scale](#). Symposium chaired by members of the NERC-NFM project teams. Abstract [submissions](#) close on 25th Jan

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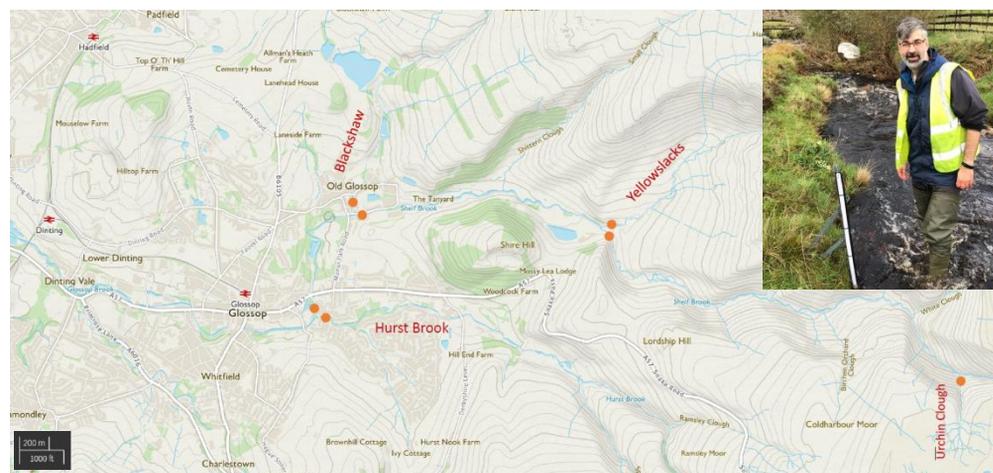
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NERC Advanced Training Short Course: Natural Flood Risk Management



From the 19th-23rd November, Martin Kay attended a [NERC Advanced Training Short Course](#) run by Lancaster University and JBA Associates in the Lake District. This was an intensive course covering the theoretical and practical aspects of NFRM, ranging from philosophical discussions on the concepts of risk and uncertainty to practical stream gauging and in-situ soil permeametry methods, via an introduction to modelling packages including HEC-RAS and Dynamic TOPMODEL. Lots of great contacts were made and Martin gained insight into the requirements of modelling parameters and considerations which will be beneficial for his work on Protect-NFM.

Flow monitoring in and around Glossop



The Glossop flow monitoring has now been installed at the points marked in orange on the map opposite. These points are just upstream of major confluences of the streams that feed into Glossop Brook, starting at our experimental site at Urchin Clough. These data, combined with our results from the restoration monitoring will help us understand how the impacts of the interventions propagate downstream.

Job updates

Three bits of positive job news to share with you:

Our field technician **Martin Kay** has taken on an extra role as **Project Officer**. In addition to co-ordinating our field work programme, Martin will also now undertake some of our data management and analysis and help co-ordinate our outreach activities.

Dave Milledge interviewed for the **modelling post-doctoral position** which will be based with him at

Newcastle University. There was a strong field and an offer has been made to an excellent candidate. We look forward to introducing them to you in the new year.

Gerard Stewart has recently joined the NERC-NFM programme team as **Communications Coordinator**. He previously worked for the Environment Agency and will be working across the three NERC-NFM projects to help ensure we promote our work and engage effectively with our many stakeholders.