

President's Perspective

First, I should like to pay tribute to Peter Ede for his inspired leadership of BHS over the past two years; I am personally very thankful that he continues to be an executive member of the committee as 'BHS Past President'.

Your country needs you

The country needs its hydrologists like never before! Consider the last few months: we have seen flooding in Reeth (30 July), Ottery St Mary (9 Sept), more widely across England on 24 Sept, Laxey (1 Oct) and 100 flood rescues in England and Wales at the end of October, all affecting many people. Internationally over 200 people died and about a million were displaced by flooding in India this summer. Then in October, hundreds of thousands of people were affected by flood events in South Sudan, Ghana, Niger, Ethiopia and Kenya (<http://floodlist.com>).

While we hydrologists need to play our part in slowing future climate changes, too many people are already at frequent risk of flooding. To lessen these risks, greater investment is needed now in both engineering solutions and nature-based 'natural flood management' (NFM). The importance of the British hydrological community acting locally and internationally has never been greater.

Risk mitigation

In the UK, several engineering schemes are underway or planned, for example in Godalming (Surrey) and Keswick (Cumbria), while the Environment Agency and other regulators are piloting nature-

based solutions on farmland. If NFM measures can be shown to be cumulatively as effective as engineering schemes, then there is an strong argument for redirecting existing farm support (currently in excess of £1 billion per year) to funding NFM. Mechanisms for achieving this could be through the proposed 'Environmental Land Management System' (ELMS; <https://deframedia.blog.gov.uk/2019/09/25/the-future-of-farming/>) if we leave the EU, or by transforming the payments within the Common Agricultural Policy (https://www.farminguk.com/news/farmers-in-payment-by-results-pilot-deliver-green-goals_54102.html) if we were to remain. Whichever path we follow we do need to engage fully with our farming community who have considerable hydrological expertise and experience of the land they manage.

Two major reports highlight urgent need for action

On 8 October 2019, Ofwat published a new long-term strategy to 'Improve Life through Water'. They forecast that population and climate change will mean that the UK water supply system would need an additional 4 billion litres of water per day for failure resilience by 2050. They propose achieving this through equal investment in building new infrastructure, leakage reductions and demand management. This is a challenging objective for water companies that will demand considerable

innovation by their hydrologists (<https://www.newcivilengineer.com/the-future-of/future-of-water/future-water-squaring-investment-circle-16-10-2019/>).

Four days earlier on 4 October, the National Biodiversity Network, a consortium of environmental organisations, published an equally significant report: 'State of Nature 2019'. This showed that UK wildlife is in a much worse state than it was in their reference year of 1970, which they attribute, in part, to deteriorating soil and water quality. Quantifying and mitigating harmful levels of soil and water quality for our wildlife demands technical input from UK hydrologists.

We urgently need concerted action to mitigate the soil and water quality impacts of some of our food production systems and to introduce other nature-friendly interventions, while maintaining the critical rural economy. ELMS again offers potential environmental solutions to this issue, if the researcher community (including hydrologists) can show that interventions can deliver measureable benefits at landscape scales - so demonstrating that investment of public money is effective. Fortunately, this accords with the new strategy of the UKRI Natural Environment Research Council (NERC). Alongside a commitment to doubling of investment in grants, they will be expecting awarded grants to deliver measureable environmental improvements in addition to world-leading science.

How you can help

Hydrologists have a huge role to play in all these challenges and I encourage you to get involved. Please share your expertise by contributing to BHS regional and national meetings over the coming months, and by sharing your activities and opportunities via the BHS mailing list (bhs-hydrology@jiscmail.ac.uk) and social media (<https://twitter.com/britishhydrosoc>).

A very tangible way of promoting your ideas for exciting new developments in hydrology would be to contribute suggestions, preferably before the end of November, for sessions at BHS2020 (via http://www.hydrology.org.uk/assets/BHS2020_session_proposal_form.docx).

BHS wants to give greater national exposure to individuals engaging in hydrological consultancy work, and to companies delivering hydrological technologies or solutions. Consequently, from 1 January 2020, BHS will offer free space on a revised website (http://www.hydrology.org.uk/register_consultants.php) to individual BHS members or hydrologically relevant companies to promote their skills and services; details will be available shortly.

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