Circulation

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February 2026

The newsletter of the British Hydrological Society



BHS membership

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Cover photo: Forth Bridge, Edinburgh (Thomas Boase)

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Copy deadline for Circulation 168 is 1st May 2026. Please email your material to bhs-circulation@outlook.com—contributions may be edited for length or clarity (**maximum** 1,000 words, or 750 with figures). Hydrological photos very welcome.

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In between issues of Circulation, you can keep up with the **British Hydrological Society** on social media:

LinkedIn—search for British Hydrological Society

Bluesky @britishhydrosoc.bsky.social

President's perspective

Joe Pearce

As I continue to settle into my role as BHS President, I reflect on what we are doing for our members to fulfil our purpose as a society, stated on our website:

- BHS provides interest, scholarship and good practice in scientific and applied aspects of hydrology, and fosters the involvement of its members in national and international activities;
- Activities include meetings and networking to benefit professionals at all levels.

And in our registration with the Charity Commission:

"*The British Hydrological Society holds regular meetings and events to disseminate and promote contemporary hydrology, drive discussion, and build collaborations. We promote and support education and careers in hydrology. We produce hydrology-related communications and publications and we support the development of early-career hydrologists.*"

We continue our activities and discussions, learning across our various science and engineering disciplines and also learning from and informing practice. With our broad base across researchers and practitioners and from students to retired members, we are well placed to share and learn. We are a volunteer led organization without huge resources and we benefit from and thrive through cooperating and working with other bodies.

These interests are reflected in the background of our committee of Trustees and in our programmed activities which I want to mention. Although much I raise may be known to some readers, I hope the selection of our activities might spark interest in finding out more and perhaps seeking to get involved.

One aspect of our international focus is participating in the UK Committee for International Hydrology (UKCIH), which is run from UKCEH with chair Prof. Harry Dixon and Secretary Joanna Savage. BHS is represented by the President, and our Trustees: Chris White represents the International Association of Hydrological Sciences and Ben Howard early career researchers. Last December the UKCIH Committee organized and held the event "From Science to Society: UK Contributions to Global water Challenges", including contributions from global water science and practice organisations. At the end of the 50th anniversary year of the formation of UNESCO's Intergovernmental Hydrological Programme (IHP), the meeting promoted UNESCO's UK policy briefing: Accelerating Multilateral Action for Global Water Security. Scan the QR code to read this brief.

UNESCO brief

During his term as President, Duncan Faulkner made contact with Professor Bruno Merz, President of the German Hydrological Society, with an idea that heads of similar European societies could meet. Prof. Merz organized an online meeting in January, including me and Duncan among representatives of hydrological organisations from nine other European countries. After brief introductions from each country/society, several aspects were discussed. While the structure and national contexts are different, the aims and challenges of the societies have many similarities.



Left: Taking check gaugings at Sakeham on the River Adur, West Sussex

It was agreed to organize a follow-up meeting about the potential for a European network of hydrological societies .

With our BHS Trustees Committee, we continue to embed our new governance. In this, I need especially to thank our Hon Treasurer, our Hon Secretary and those who support us at the Institution of Civil Engineers. Even though the new charity was registered in May 2024, the knock-on effect of needing to produce reports for the old and new charity have continued to add to workloads into 2026.

Past President Duncan Faulkner continues to represent the Society on the UK Flood Hydrology Roadmap (FHRM) Governance Board. Duncan posted the 2022-24 Annual Report on the website (https://www.hydrology.org.uk/assets/UKFHR-Annual_Report_2022_24.pdf) and summarised this as a period of establishing the foundations for the delivery of the Roadmap; the Governance Board looks forward to continuing to work with the community to see the Roadmap's vision become reality.

Work continues to prepare for the implementation of the new BHS website with an updated design and allowing more flexibility. It will be there soon and we hope you'll like the improvements. I also urge you to take a look at other resources we do have which include our BHS LinkedIn and BlueSky. Selected event recordings are available on the BHS YouTube channel (https://www.youtube.com/@britishhydrologicalsociety4838).

BHS YouTube



It's really good to see the activities of our regional groups: the South West and Wales relaunch event in September; South East's initial reflections on the 2025 drought webinar in November and The Pennines Section Christmas lectures webinar from Newcastle University.

In Edinburgh, we have just had the joint BHS and Floods & Droughts Research Infrastructure (FDRI) workshop: Floodplain Flow Measurement. This was held in person and supported by FDRI, making it free to attend; an excellent opportunity to explore the science and practice to improve peak flow measurements in floodplains.

February also saw the BHS Hydrologists Professional Development month. Emma Cross, chair of BHS Education and Careers sub-committee, prepared a programme of lunchtime talks through the month. It included selected institutions offering professional chartership recognition and was designed to offer helpful advice and avenues for support to hydrologists with a wide range of interests and backgrounds.

Other events we can look forward to include our national meeting in June, marking the 50th anniversary of the 1976 drought; the Peter Wolf early careers symposium (also June), and our 16th national hydrology symposium in September. More details of all these can be found in the Forthcoming Events section of this issue.

I am grateful to the Trustees and volunteers who run the Society, our events and activities. I'd welcome input from members and there is a variety of ways you can get more involved. You can be part of organizing or participating in events, support our sub-committees or our regional groups or through contributing to Circulation. Or maybe you could consider a role as a Trustee. I'd welcome your interest so please email me to find out more.

Joe's email address is bhs-president@outlook.com.

Exploring the relationship between infiltration rate and BFI

Paul Webster, Corylus Planning & Environmental

At Corylus, we have overseen many site-specific infiltration tests in support of Sustainable Urban Drainage Systems (SuDS) for planning applications; these have been for solar farms and small residential developments (Figure 1).

Most tests have used shallow pits, just 0.3 m square and 0.3 m deep and so could be dug by hand. Latterly, with more stringent requirements for full compliance with BRE365[1], test pits have been rectangular with a minimum length of 1 m.



Figure 1: Map of infiltration test locations

For the test, the soakage trial pit is filled and allowed to drain three times to near empty (Figure 2). The water level is recorded on each drain down, to ascertain the time taken to drain from 75% to 25% effective storage depth in the soakage trial pit. This time interval is used in computing the soil infiltration rate.

The lowest value of the three tests is used for design; this is generally from the third trial, though not always.

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[1] Building Research Establishment digest 365, 'Soakaway design'

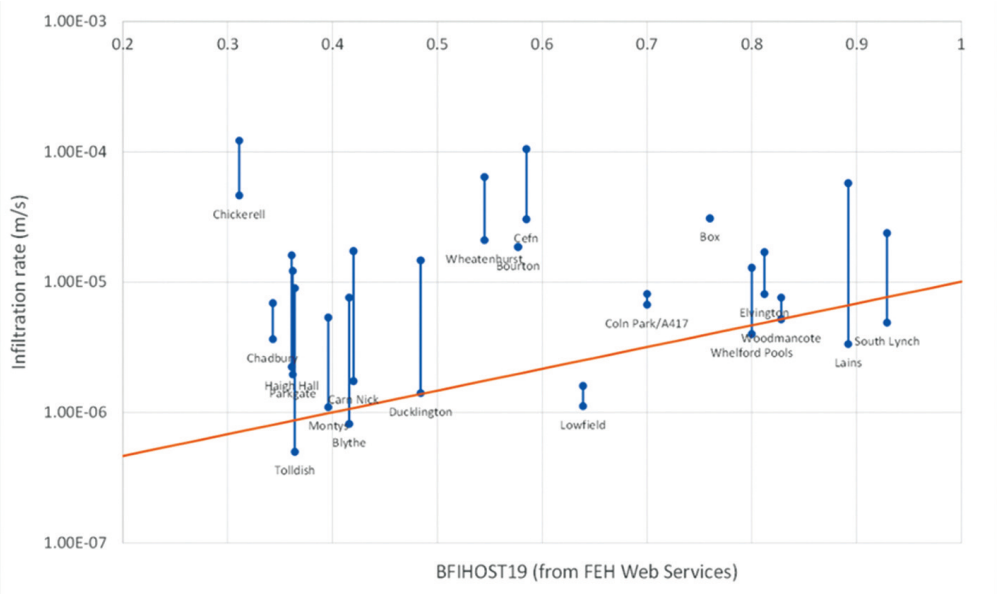
On large solar sites, testing may be undertaken at up to six locations, generally chosen to coincide with the planned infrastructure. Wider sampling indicates the variation in infiltration rates across these sites.

For interest, the infiltration rates at the sites in Figure 1 were plotted against the point value of the FEH Catchment Descriptor BFIHOST19. Where multiple tests were undertaken at a site, the range was used. Figure 3 shows the resulting plot.



Figure 2: A typical trial pit during testing

Figure 3: Relationship between infiltration rate and BFIHOST19 (based on observations by Corylus 2018-2025)



The primary observation from these results is the large range of infiltration values within individual sites, as shown by the extent of the bars. That variability reaffirms why multiple tests are required for any site to better understand the spatial variation of this key soil property. A further inference relates to the variation of the infiltration rate with BFIHOST. Whilst there is substantial scatter, the data do provide the basis for an approximate bounding curve as shown, with the following equation:

Predicted infiltration rate, k = 10^(1.67 * BFIHOST19 – 6.67)

(predicted rate, k, in m/s)

Whilst there is no substitute for site-specific testing, the equation may offer a helpful starting point for estimation of the infiltration rate in site appraisal.



Figure 3: A typical trial pit during testing

Report from the Early Careers Conference of the British Society of Soil Science, Manchester

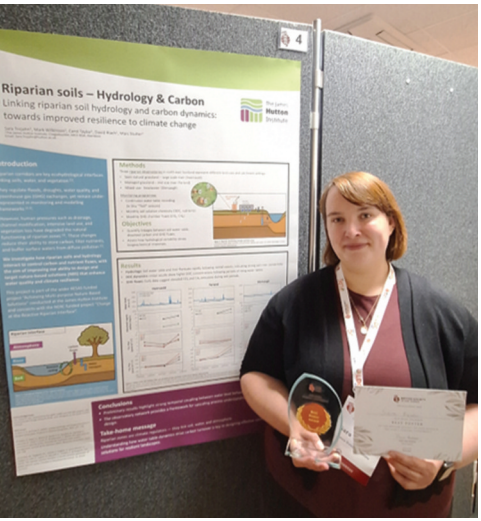
Dr Sara Trojahn, Research Scientist, James Hutton Institute, Aberdeen

The 2025 British Society of Soil Science (BSSS) Early Careers Conference in December 2025 was my first soil science conference and an exciting opportunity to present new research on riparian soils.

I presented a poster titled "Riparian Soils: Hydrology and Carbon – Linking riparian soil hydrology and carbon dynamics towards improved resilience to climate change", based on work conducted at The James Hutton Institute. This research forms part of the RESAS funded project "Achieving Multi-purpose Nature Based Solutions" and builds on the earlier NERC project "Change at the Reactive Riparian Interface."

My research explores how riparian soils, key interfaces between land and water, regulate carbon and nutrient fluxes, influence greenhouse gas (GHG) emissions, and contribute to climate resilience. Using data from three riparian observatories across north-east Scotland, we monitor water table fluctuations, nutrients such as dissolved organic carbon (DOC), and greenhouse gas fluxes (CO_2 and CH_4) across different land uses and catchment settings. Early results indicate strong temporal coupling between hydrology and carbon dynamics, with rising water tables associated with higher DOC concentrations and increased greenhouse gas emissions during wetter periods.

This work aims to improve understanding of how riparian zone processes control carbon turnover and to support the design of effective nature-based solutions for resilient landscapes.



December's event brought together approximately 100 early career soil science researchers, policymakers, and industry partners, offering a fantastic opportunity to showcase emerging research, network with peers, and gather feedback.

I was genuinely surprised and delighted to receive the Best Poster Award, sponsored by Wiley. As my first soil science event, this recognition was a meaningful milestone and a great motivator to continue developing this research.

Overall, the conference provided a rich mix of scientific exchange, networking, and inspiration. The enthusiastic response to my poster, combined with the valuable feedback and new contacts established, gives confidence that my work on riparian soils and the interactions between hydrology and nutrients is both timely and relevant. I look forward to building on these early findings and contributing further to soil science and the advancement of nature-based climate solutions.

Flood and Drought Research Infrastructure - update

FDRI are pleased to release over 35 years of hourly weather data (rainfall, temperature, humidity, radiation, wind speed) from six sites within the Plynlimon catchments, and 15 minute river flows from 10 flow gauging stations, from the mid-1970s to 2010. You can access this data (and information about how it was unearthed) through UKCEH's Environmental Information Data Centre, or these QR codes:

Access the data

Find out how it was unearthed

Other FDRI updates:

Video: What is 'FDRI data'? You can hear Simon Stanley, FDRI Data Scientist at UKCEH, explain what happens to FDRI data once it's captured in the field. Watch the video on UKCEH's YouTube: https://www.youtube.com/watch?v=ltYd2wUxLGM

Paper: Mapping hydro-ecological citizen science activities - read the new publication from UKCEH and Imperial College London at https://fdri.org.uk/mapping-citizen-science-paper

For further updates, please subscribe to the FDRI newsletter here: FDRI Sign Up (https://mailchi.mp/ceh.ac.uk/fdri-sign-up)



Books hydrologists might enjoy

Duncan Faulkner

Not having a TV licence, I seem to get through a lot of books. Here's a selection of fairly recent reading that some fellow hydrologists might enjoy.

The Flow: Rivers, Water and Wildness, by Amy-Jane Beer (2022)

I've just finished reading this book which weaves together an immersive exploration and appreciation of (mostly) British rivers with a passionate campaigning voice for their protection. Hydrologists might appreciate the erudite touches (the author trained as a biologist), with a plunge into some principles of hydrology in chapter 1, including a nice reframing of the water cycle as a dance or a song of barely graspable complexity.

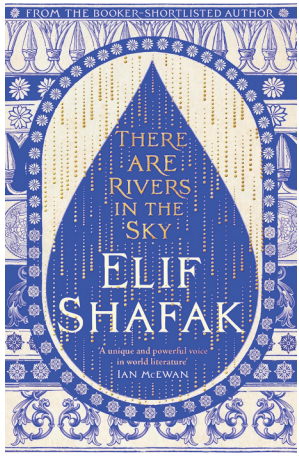


It's a deeply personal journey, flowing from mourning after the death of a kayaking friend. It concludes with a descent into the underworld of Hell Gill, a canyon high in the headwaters of the River Eden that I have only ever dared to look into (although my wife and daughter have managed to get though it). Amy-Jane Beer lives by the Yorkshire Derwent, and I appreciated the many references to wild places I know and love in the north of England. Highly recommended reading, even for readers, like me, who prefer to look at water than to immerse themselves.

There are Rivers in the Sky, by Elif Shafak (2024)

The Flow opens with the sentence "There are rivers in the sky, and they are vast". Might that reference to atmospheric rivers have inspired British-Turkish novelist Elif Shafak's title? This powerful novel is the only one I've encountered that has a

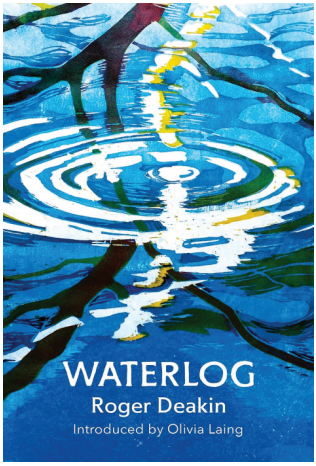
hydrologist as a central character: Zaleekhah Clarke, who works for CEH. Her life is bound together with those of the other two main characters, in watery ways that are gradually revealed through the course of the book. The perspective shifts on a 3-chapter cycle between London and the Middle East, and the 21st and 19th centuries.



BHS members might smile at some interesting reinterpretations of familiar concepts: CEH is relocated to London for literary purposes, and at one point there's an apparent reference to the Thames flowing from London to Oxford. But the book is more heart-rending than hydrological, with water as a character that holds memories of human cruelty and loss. While The Flow might make you crave a dip in some wild water, this novel inspired me to visit the British Museum last weekend.

Waterlog, by Roger Deakin (1999)

Described as the "foundational text of wild swimming", Waterlog is so much more. If you enjoy The Flow, go to its source material. Amy-Jane Beer makes clear that her watery thinking and journeying follow in the wake of Roger Deakin.

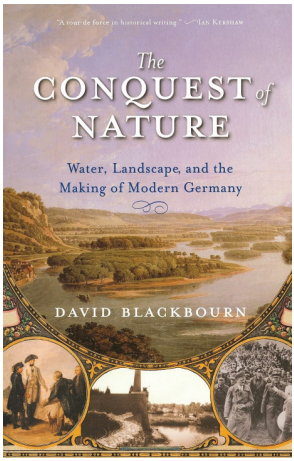


His phrase, "a tree is a river", forms a motif throughout her book. Waterlog was a present from a friend and my first encounter with Roger Deakin's irreverent, accessible celebration of nature. I have read it many times, including out loud to my wife and again to our son. We have followed in the author's footsteps, exploring hidden watery treasures. We even live right by one of his swimming spots.

The Conquest of Nature: Water, Landscape, and the Making of Modern Germany, by David Blackbourn (2006)

I didn't go to the TUFLOW conference in 2021 looking for recommendations for reading on the history of Germany. But Will McBain enthused about this book, and I now share his appreciation. It's hydrology as told by a historian; a penetrating insight into the pitfalls of meddling with the water environment and the generational hubris that tempts us to think that we know best.

"History can help us to recognize the power of unintended consequences, and there is no other area of human endeavor, with the possible exception of war, where the power of unintended consequences is quite so great as it is in human dealings with the environment… Successive generations have been proved fallible in this respect… each set of proposed new measures promises to turn the trick and finally overcome the ignorance or engineering mistakes or political mistakes of earlier generations… History cannot make us wise but perhaps it can make us a little less foolish".



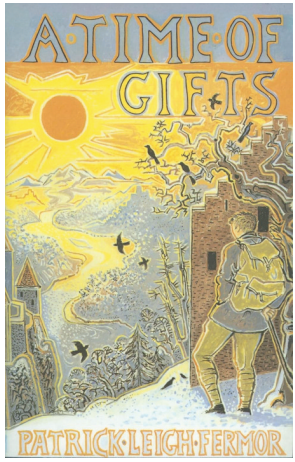
Let's not kid ourselves that our current ideas on river management are immune from the scorn of future hydrologists. Last year I re-read much of the book; a great preparation for a cycle pilgrimage through Germany and beyond, along the much-straightened Rivers Rhine and Danube.

A Time of Gifts by Patrick Leigh Fermor (1977)

On that ride we were consciously following in the footsteps of a much earlier traveller. "PLF" set out in 1933, aged 18, to walk from the Hook of Holland to Istanbul. Written many years later, this book is a resplendent description of the first part of his journey, as far as a bridge across the Danube at

Esztergom – where we too paused on our bikes to take in the view of the cliff-top basilica, although during our stay we spent more time in the superb Hungarian museum of hydrology and water management.

Much of Paddy's wanderings took him along rivers, at a time when the Danube still retained some its wildness. His description of the Marchfeld is reminiscent of Amy-Jane Beer's water cycle:



"Flood and marsh expanded and streams wandered away in branching coils which an invisible tilt of the plain always guided back to their allegiance; and at each return, as though to atone for their truancy, the deserting streams brought a straggle of new tributaries with them."

This book, and its two successors, are masterpieces. Highly recommended – although you may need a dictionary close at hand.

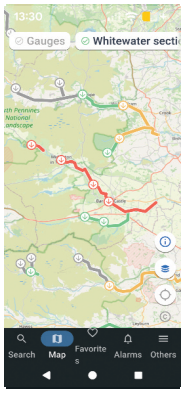
And finally… you can order any of these via your local independent bookshop if you have one. Or for online second-hand sales I'd recommend https://www.worldofbooks.com/.

(BHS has no affiliation with these authors or their publishers)

Love rivers? Have you tried RiverApp?

Free to download, and shows you real time river water levels at gauges in the UK, northern Europe, North America, New Zealand and parts of Australia. Search the map for a gauge or a whitewater canoeing section, check the level or hydrograph, save your favourites, set alarms, generally indulge your hydrology self!

A subscription gives you access to more data (*BHS has no affiliation with RiverApp and receives no benefit*).



News: Langbein Award of the American Geophysical Union

Congratulations to BHS member **Chris Soulsby,** Professor of Hydrology at the University of Aberdeen, who was recently announced as the 2025 winner of the Langbein Award of the American Geophysical Union (AGU).

The award, named after the seminal American hydrologist Walter Langbein, is given in recognition of "lifetime contributions to the science of hydrology". Chris received the award at the AGU Fall Meeting in New Orleans in December where he delivered the annual Langbein Lecture. This was titled "Tracing flow paths and connections in watersheds of the Anthropocene" following his citation which highlighted excellence in tracer hydrology research. Chris follows previous British recipients of the award Keith Beven, Jim Shuttleworth and Tom Dunne.



Chris was presented with his certificate by Professor Vencat Lakshmi, current President of the AGU Hydrology Section

Congratulations Chris, from all at the British Hydrological Society!

BHS South-East and East Regional Group

Clare Waller

The BHS South-East and East Regional Group has recently reformed with a new committee. The group covers a wide area from East Anglia southwards, including London and Oxford. Our purpose is to organise online and in person meetings and events that support the BHS mission: to share the latest ideas in hydrology, encourage discussion, and build collaboration across the community.

All events are free and open to BHS members, wherever they live. You do not need to reside in the region to take part.

Committee members

Co-Chairs: Clare Waller and Tracey Haxton

Secretary: Matt James

Committee members: Emma Cross, Sharon Mandipe, Lisa Chatterjee, Giuseppe Degan Di Dieco, Ioannis Moustakis, Aude Pineau, Steve Tuck and Emma Ford.

We are keen to expand the committee to better represent the breadth of the hydrology sector and to gather ideas for future meetings and potential site visits. If you would like to get involved, please contact us at bhs_southeast@outlook.com.

We are planning some exciting events, both online and in the field, over the next six months so please look out for updates via the BHS email.

Preliminary reflections on the 2025 drought in the South-East region

Our first event took place on 19 November 2025, delivered as an online webinar, with four speakers sharing their early reflections on the 2025 drought in the South-East region. A total of 164 people registered—an excellent turnout that

highlights the strong interest in this topic. The webinar recording is now available on the BHS YouTube channel.

Eugene McGee (Hydrological Analyst, UKCEH) opened the technical presentations with a review of the meteorological and hydrological conditions leading to the 2025 drought. He highlighted an exceptionally dry spring and summer across much of the UK, with rainfall deficits comparable to major historic droughts such as 1976 and 1995. River flows, groundwater levels, soil moisture and reservoir stocks all showed significant declines, particularly in southern and eastern England. Eugene also summarised drought impacts—including hosepipe bans, wildfires, navigation restrictions and sustained low groundwater—and provided a short term hydrological outlook indicating continued pressure in groundwater fed catchments despite autumn rainfall.

Tom Entwistle (Area Drought Coordinator, Environment Agency) then provided a regulatory perspective, focusing on conditions in the Thames catchment. He described how prolonged dry weather developed rapidly after an initially wet winter, had pushed parts of the Thames area into "prolonged dry weather" status by early July. Tom outlined pressures on water resources around Oxford—navigation requirements, ecological needs, abstractions, and hydropower—and explained how the Environment Agency used tools such as low flow protocols, navigation restrictions and close coordination with water companies to manage risks. He noted that drought status in 2026 will depend critically on winter recharge.

Aodhín McBride and Steve Tuck (Thames Water) described operational decision making within the Swindon–Oxfordshire (SWOX) Water Resource Zone. Using monthly hydrological assessments, demand forecasts and reservoir storage projections, they set out how Thames Water escalated through drought levels, introduced temporary use bans, and

prepared (but ultimately avoided) a drought permit for Farmoor Reservoir. They demonstrated the complexity of balancing groundwater, surface water and treatment capacity, especially during consecutive heatwaves and prolonged low rainfall.

Simon Cook (Southeast Water) provided a detailed account of drought impacts in Sussex, where the Ardingly and Barcombe reservoir system and the River Ouse catchment experienced severe drawdown. Early spring losses of inflow, record summer demand during heatwaves and diminishing groundwater support led to temporary use bans, drought permit applications and contingency planning for potential emergency restrictions. Simon highlighted ongoing concerns about winter recharge, groundwater behaviour, and risks of saline intrusion in coastal aquifers.

Many thanks to our speakers for their informative and insightful contributions. Their time and contributions are greatly appreciated by the regional group and all who attended.



Ardingly Reservoir (photo: Simon Cook, Southeast Water)

UK Flood Hydrology Roadmap Workshop on Scientific Understanding

Linda Speight, University of Oxford

As the sound of fireworks faded away from Bristol Harbourside last November, around 25 researchers working across UK flood hydrology came together with members of the UK Flood hydrology Roadmap STAG and Governance Board to ignite activity towards the ambitious goals of the Roadmap's Scientific Understanding theme. The workshop aimed to identify research ideas to improve our understanding of flood generation processes and the drivers of hydrological change, and to investigate the validity of critical assumptions made in operational flood hydrology.

Anita Assadullah opened the day with an ice-breaker activity inviting everyone to share why they work in hydrology. This proved to be a positive reaffirmation of the importance of what we do, alongside an informal sideline competition to determine who loves rivers the most (Hannah Cloke, in case you were wondering!).

Chris Skinner led us into a sea of Post-it notes to identify ideas and priorities around what we don't yet understand about hydrological processes, what is holding us back from making progress and why these knowledge gaps matter, particularly in the context of a rapidly changing climate.

Rob Lamb and I then encouraged everyone to develop outline proposals for what a large research project or programme of work to address these challenges might look like. The resulting ideas spanned a range of methodological and process-based questions including; how to best use advances in hydrometric data and modelling to improve decision making, where machine learning can add value (and where its limits lie), how to bridge the gap between small-scale understanding of catchments and larger-scale drivers

of change, how to deal with increasing volatility in hydrological drivers, and where our effort should be most strategically focused?

We also discussed potential routes for funding this type of work, particularly the opportunities that come from broadening the focus beyond flooding alone and better articulating how flood hydrology research aligns with the wider water security challenges currently motivating UK PLC.

Feedback from the day underlined how valuable it is, in this post-COVID world, to bring people together in the same room. As I look ahead to passing the STAG chair baton onto another willing volunteer, I'm struck by the commitment colleagues across all sectors continue to show in working together towards shared goals, despite the constant backdrop of uncertain funding and limited resources. The buzz and enthusiasm during the day were infectious, and the outputs valuable - we should do more of this.

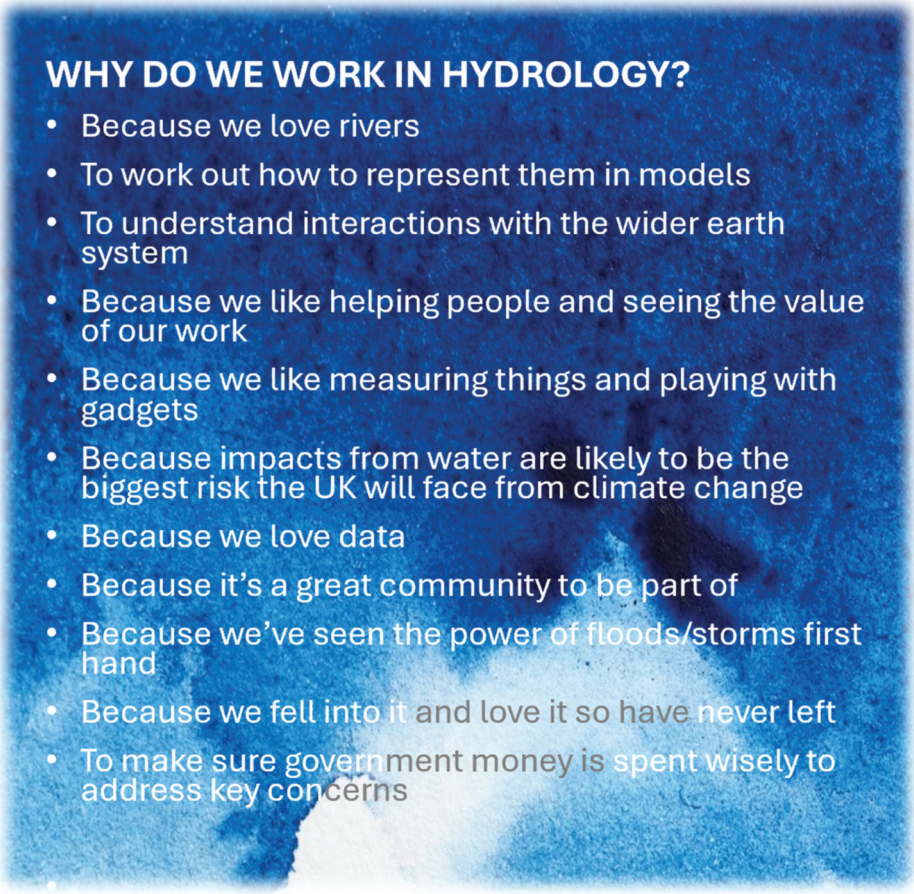
With many thanks to the Environment Agency for hosting us, FDRI for providing lunch, and to everyone who attended and made it such an enjoyable and worthwhile day. Watch this space as we will be moving forwards to explore funding options for the research ideas generated.

Linda Speight is the current Chair of the UK Flood Hydrology Roadmap Science and Technical Advisory Group



Workshop participants at work with Post It notes >

From the FHRM workshop participants….



16th National Hydrology Symposium (BHS 2026)

Reimagining Hydrology for a Changing World

It's coming! Our 2026 Symposium will be held from 2nd-4th September 2026 at the University of Leeds, organised by the British Hydrological Society in association with water@leeds at the University of Leeds.

The Symposium will showcase a broad range of hydrological work—changing climate, international hydrology, observations, ecohydrology, collaboration, water resources, groundwater, digital tools—through presentations, posters, workshops, discussions, field visits and a Symposium Dinner. Delegates from universities, consultancy firms, water companies, public bodies, charities, and trusts etc are all welcome.

Registration will open 2nd March—please book early!

Abstract submission, open now until 3rd April 2026 (see symposium web page)

For further information please visit the Symposium web page at hydrology.org.uk/BHS2026.php, on social media (LinkedIn, BlueSky), and also via the BHS mailing list. Specific queries can be sent to the BHS events team at bhs_events@outlook.com

water@leeds brings together over 200 professionals from across the different departments and faculties of the University of Leeds. It works with partner organisations regionally, nationally, and internationally to tackle water-related challenges at a range of scales. Further information can be found at water.leeds.ac.uk

Forthcoming events

EMERGING GROUNDWATER AND URBAN INFRASTRUCTURE

Coming together to future proof drainage systems and our communities

A one-day conference jointly hosted by the CIWEM Urban Drainage Group and Hydrogeology Group of the Geological Society

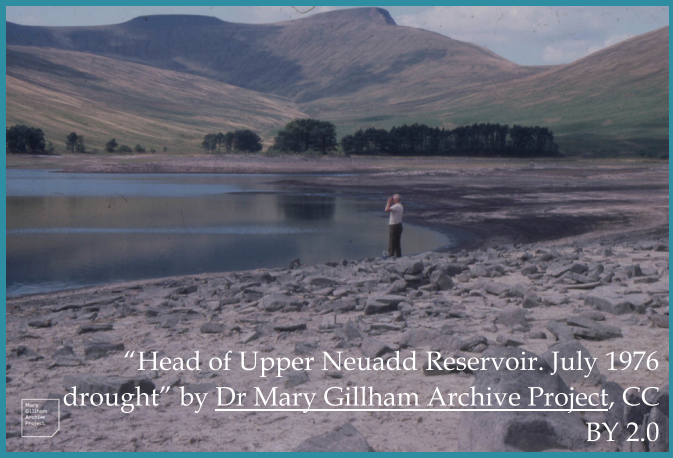
Date: 7th May 2026
Venue: International Conference Centre, Birmingham

The event aims to bring together professionals from different sectors to understand how interactions between emerging groundwater and urban infrastructure affects flooding from multiple sources, and work collaboratively towards integrated solutions.

CIWEM Chartered Institution of Water and Environmental Management
Urban Drainage Group

HG

Drought hydrology: 50 years since 1976, Wednesday 17th June 2026, Institute of Civil Engineers, One Great George Street, London.



"Head of Upper Neuadd Reservoir. July 1976 drought" by Dr Mary Gillham Archive Project, CC BY 2.0

The meeting will explore the 1976 drought in more detail, what's changed since, the challenges that remain and possible future solutions. More information to follow, including poster abstract submissions.

Peter Wolf Early Careers Symposium, Imperial College, London, June 2026. Further details available soon

CIWEM Rivers and Coastal Group Technical Conference 2026, Arcadis office, Fenchurch Street, London on **6th March 2026**, 9am-5pm. A dynamic programme with presentations, panel discussions, and interactive workshops, designed to foster collaboration and spark insightful conversations. CIWEM members and non-members are welcome. Information and registration at https://www.ciwemevents.com/event/rcg/summary

What's it all worth? - Building the benefits case for weather and climate services (in person and online) at University of East Anglia on **16th March 2026**, 6-7pm. A talk by Robert Varley, EUMETSAT. Register at https://www.rmets.org/event/login?event=1738835

Research to Practice in Climate Change Adaptation (in person only) at The Institute of Structural Engineers, London on 29th April 1-5pm. RMets national meeting in collaboration with the Hazards Forum, open to all. Register at https://www.rmets.org/event/login?event=1738835

Flood & Coast 2026, Liverpool Exhibition Centre **9-11th June 2026**, 9am-5pm. Flood & Coast is the UK's leading annual event for professionals working to manage flood risk, build climate resilience, and protect society and the environment. Information and registration at https://www.ciwemevents.com/event/floodandcoast/summary

UK Hydrological Bulletin, November 2025-January 2026

Compiled from UKCEH summaries

November was the wettest month of 2025 so far, with 131% of average for the UK as a whole and exceptional rainfall across large parts of the country. It rounds off a transformative autumn, with many areas quickly shifting from drought concerns to flood risk (although precautionary drought restrictions remained at month-end even in some of the wetter areas). With steep increases in soil moisture levels, river flows climbed sharply in responsive catchments – flood alerts were widespread and there was locally severe flooding in south Wales. Correspondingly, reservoir levels recovered in many upland impoundments: stocks for England & Wales climbed from 68% in October to 81% of capacity (only 3% below the typical November stocks) and some reservoirs saw even greater increases (e.g. in the Pennines where Derwent Valley and Washburn went from substantially below average to 13% and 8% above, respectively) (Figure 1). However, in southern and eastern England, despite some notable increases, stocks typically remained below average (e.g. 28% below average at Wimbleball and 30% at Ardingly), reflecting a drier autumn that extends long-term rainfall deficiencies.

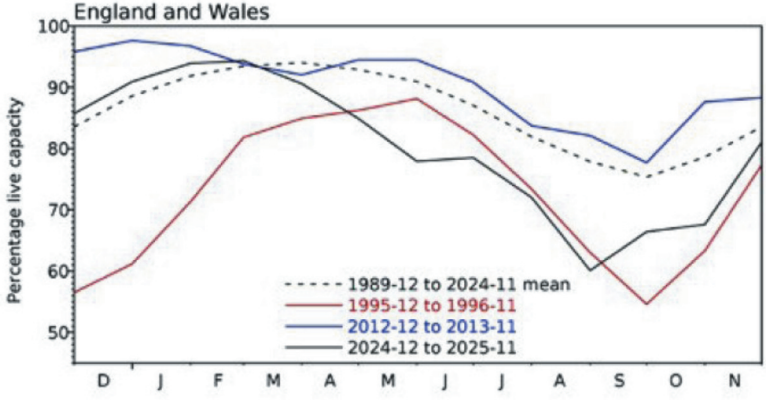


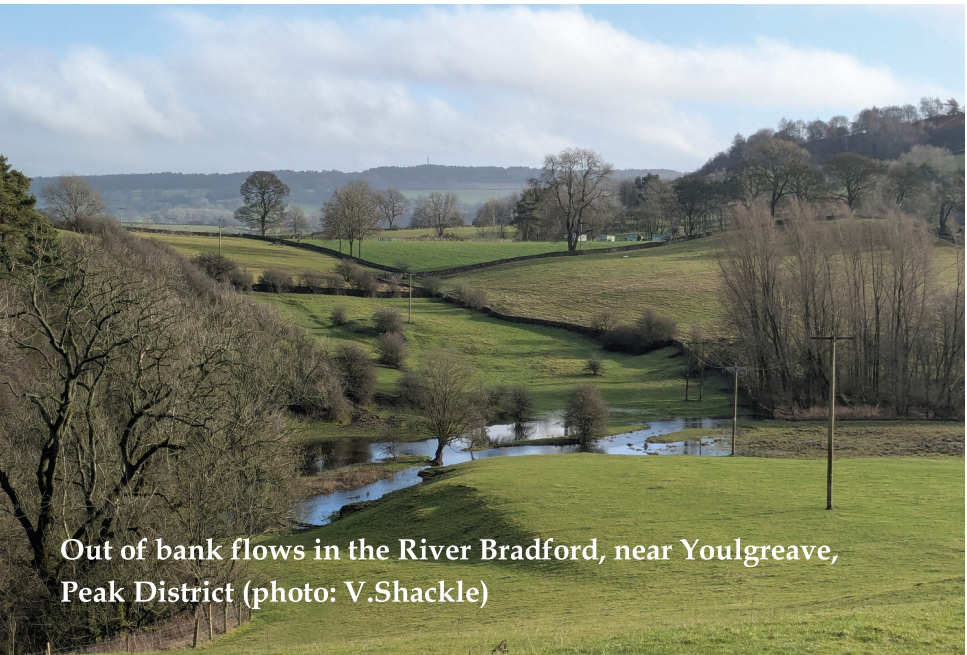
Figure 1: Comparison between overall reservoir stocks for England and Wales in recent years

Notably low groundwater levels were also apparent across the southern and eastern Chalk, although recharge has commenced in some areas, and it will take time for the November rainfall to have an impact. Entering winter, the picture is mixed, with simultaneous flood warnings and drought restrictions in place, reflecting both spatial variations in autumn rainfall and the role of aquifer/catchment properties in dictating the rate of recovery. The Thames Water temporary use ban was lifted on 27th November and further cessation of drought status was planned in other areas for early December. And yet, concerns remain, and winter rainfall will be of pivotal importance in dictating the water resources outlook for 2026, particularly in the south-east. The latest Hydrological Outlook indicates normal to below normal flows and groundwater levels are likely in parts of southeast England and in northern Scotland through the winter.

December was warm and wet – rounding off the warmest year on record in the Central England Temperature series (from 1659). Though UK rainfall was almost exactly average, this masked spatial differences, with long-term deficits ongoing in north-east Scotland and south-east England. December rainfall meant Soil Moisture Deficits were minimal, and although soils wetted, in some regions they remained drier than average. Monthly mean flows were generally above normal across England and Wales but in the normal range or below in northern Scotland and in south-east in England. Groundwater levels varied across the UK, with most levels in the normal range or above. In Scotland, parts of eastern England and south Wales, levels plateaued or started to decline. Though reservoir stocks for England & Wales remained near average, some impoundments remained below average despite increased stocks relative to average (e.g. Ardingly and Wimbleball remained 8% below average, and Grafham, Bewl and Colliford 12% below average), whilst

others registered substantial increases in stocks to above average (e.g. Stithians and Bristol Supply). The wet December weather improved the drought situation, with only parts of Sussex remaining in drought status in England, and East Anglia and parts of Wessex in prolonged dry weather in early January. Rainfall over the remaining winter months will be important for determining spring/summer water resources situation, especially in the south-east of England.

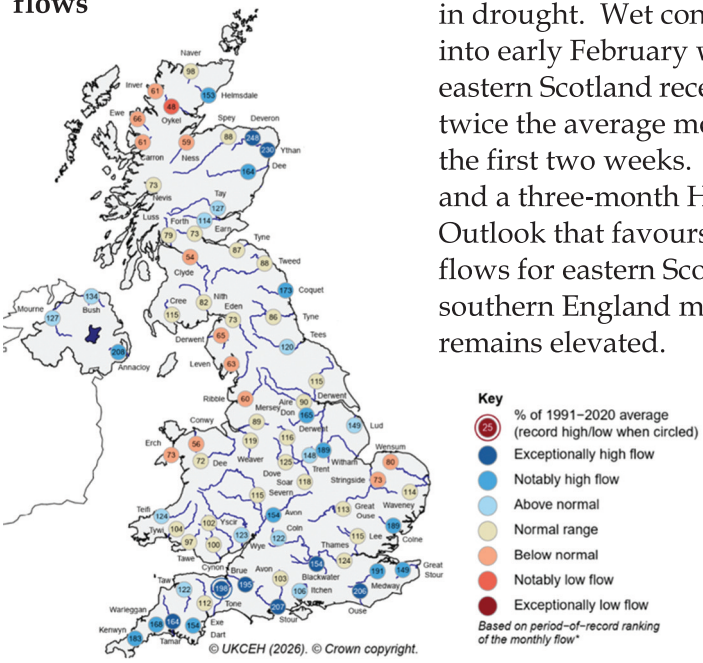
January was unsettled with successive low pressure systems bringing wind, rain and snow, leading to pluvial and f luvial flooding. Rainfall was above average across Northern Ireland and eastern and southern Britian but below average elsewhere. January mean flows were in the normal range to below normal for western Scotland and northwest and south-east England. In contrast, flows were notably to exceptionally high at some rivers in eastern Scotland, Northern Ireland and southern England (Figure 2).



Out of bank flows in the River Bradford, near Youlgreave, Peak District (photo: V.Shackle)

Groundwater levels rose across much of the UK, reflecting the wet conditions of recent months. Modest recoveries were observed though below normal levels remained in East Anglia and parts of central and northern Scotland. Reservoir stocks rose and were near average for England & Wales. A wet January aided drought recovery, with parts of Essex exiting drought status for the first time since May 2025 with no English region in drought. Wet conditions persisted into early February with parts of eastern Scotland receiving more than twice the average monthly rainfall in the first two weeks. Saturated soils and a three-month Hydrological Outlook that favours above normal flows for eastern Scotland and southern England means flood risk remains elevated.

Figure 2: January 2026 river flows



The Hydrological Bulletins draw primarily on data and information from the UK Met Office and the CEH/BGS National Hydrological Monitoring Programme—the latter comprising data supplied by the Environment Agency, SEPA, NRW and Northern Ireland Environment Agency, as well as the UK water companies.



British Hydrological Society