Circulation

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Peter Wolf Early Career Hydrologists' Event

Adapting water management to climate change: Putting our science into practice

Loughborough University, 12-13 April 2011

This workshop will provide an open and friendly forum for early career hydrologists, practitioners and policy makers to exchange ideas on evaluating risks and adapting freshwaters to climate change. Delegates are invited to submit a title and 200 word Abstract (for either poster or oral presentation). We have a great line up of guest speakers too. Contact **Rob Wilby** (R.L.Wilby@lboro.ac.uk) or see the registration site for further details: http://store.lboro.ac.uk/browse/extra_info.asp?compid=1&modid=2&prodid=39&deptid=220&catid=28

Deadline for abstracts: 28 February 2011
Deadline for registration: 11 March 2011

New Hononary Members

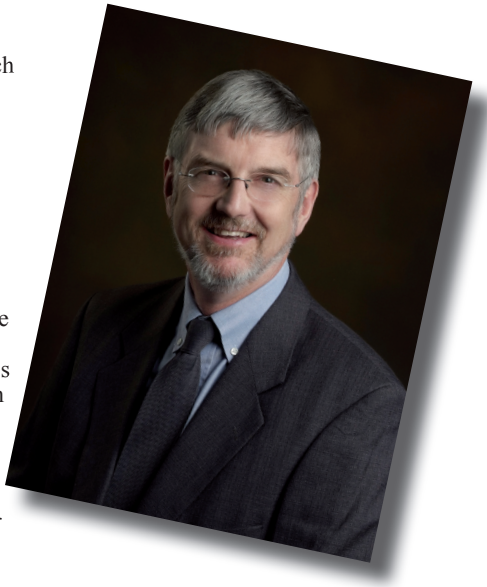
BHS has awarded Honorary Memberships to **Malcolm Newson** and **Howard Wheater**, in recognition of the major contributions they have made to hydrology in Britain, and also for their inspiration in the teaching of generations of students.



Malcolm explaining to Guy Opperman, MP, the design and siting of a fish pass at Hexham Bridge to ease the movements of salmon, eels, lamprey and coarse fish in the middle section of the Tyne. The Tyne Rivers Trust has been funded to carry out this project and, true to its tradition, is seeking a thorough engagement with stakeholders.

Professor Malcolm Newson has made a big working lifetime achievement across a broad canvass in hydrology, geomorphology, and hydro-ecology. Malcolm has a distinguished research career spanning appointments at the former Institute of Hydrology and Newcastle University. He is internationally recognised as a research leader and for his successful hydrology texts, notably '*Land, Water and Development*', now in its 3rd edition, which authoritatively sets out the case for an holistic approach to catchment analysis and management.

In 2008 he became the Director of the Tyne Rivers Trust, taking the bold step from expert advisor to becoming directly responsible for river restoration work on the Tyne. He is a long-established member and supporter of BHS.



Professor Howard Wheater is well known for his research and teaching at Imperial College from 1978–2010. His research has covered flood, water resources and water quality issues, with applications ranging from land management impacts on flood risk to nuclear waste safety assessment. His international experience extends to the Middle East, Far East, Africa and South America, and he has represented Hungary and Argentina at the International Court of Justice and also contributed to WMO, UNESCO and EU initiatives. He was awarded the Prince Sultan bin Abdulaziz International Water Prize and a Fellowship of the American Geophysical Union.. Closer to home, he has been recognised with Fellowships of the Royal Academy of Engineering and the Institution of Civil Engineers, and has led various NERC and EU funded programmes. He is a past Hon Treasurer and President of BHS. He has recently joined the University of Saskatchewan in Canada as Canada Excellence Research Chair, to head a new Global Institute for Water Security.

President's piece

Since my last President's Piece, a significant fraction of the Society's activity seems to have been focused in the Pennines area. On 18 January, BHS was involved in a day meeting on Upland Hydrology, organised by Dr Rebecca Slack and Professor Joseph Holden at Leeds University. The meeting attracted an attendance in excess of 50, drawn to hear presentations from many of the key figures concerned with assessing the hydrological impacts of upland (particularly peatland) land management. One of the great strengths of the day, for me, was the breadth of the presentations — several speakers began their presentations with the words 'I'm not a hydrologist…' but this simply underlined the value of the breadth of perspectives drawn together. There seemed to be no doubt over the value of hydrologists being able to hear from land and conservation managers, and vice versa.

It was good to see so many research students attending, in many cases encouraged by supervisors no doubt, and I hope our membership tally will increase as a result of their positive experiences on the day. A meeting report for *Circulation* is in preparation.

Another striking feature of the day was the level of interest expressed in being involved in BHS Committees. Naturally, I invited interested parties to make themselves known. It is fantastic to be able to report that, after the Pennines Section committee running along at just two members for the past few years, we now have a rejuvenated complement of seven so far, with at least one more possibly still to come. I am sure this will be excellent news for members in the Pennines area, and the enlarged committee will be working on a regional programme for the 2011/12 season in the coming months. We'll include a list of names and contact details in the next *Circulation*. Meantime, it is opportune to reiterate a standing invitation to all members — your ideas and suggestions about meeting topics are always welcome and, similarly, if you'd like to get involved in your local section, please do get in touch — names of regional reps are listed on the BHS website. Suggestions for field excursions, seminars or workshops are also very welcome. It's your Society – please do get involved!

There was a distinct lack of geographical focus to our January meeting, in that we only met by phone! Last January, in one of our apparently many cold spells, we changed our planned meeting to a phone meeting at short notice, and it was decided to do the same this year at a time of year when travel is at higher risk of disruption. Certainly there were benefits in terms of no-one needing to leave home at some unearthly hour, and further benefits in terms of avoided travel costs and related atmospheric emissions. As a means of dispensing with some items of business on a shortened agenda, it was effective, but for more substantive items of business, my personal preference remains a face to face meeting.

Finally, we are planning a membership survey. It's several years since the last time we did this, and as members' wishes and needs change, and similarly the make-up of our membership changes, this information helps us plan for the future. When you get the forms, please do take a few minutes to complete and return.

Andrew Black
President

The Abberton Scheme: a new strategic resource for Essex

BHS SE Section Meeting 25 November 2010

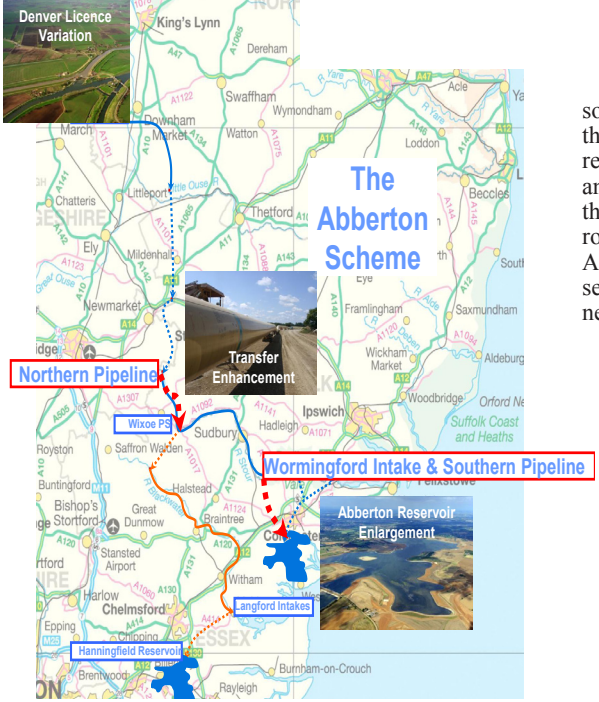
In the second of BHS South East Section's meetings programmed this year, speakers from Essex & Suffolk Water and the Environment Agency provided an overview of the Abberton scheme and clearly explained why this new strategic resource is needed.

Will Robinson, Essex & Suffolk Water's water resources manager, explained that even after measures have been implemented to reduce demand for water, there is still a predicted deficit between available supplies and demand in Essex. In its water resources management plan, the company showed that the Abberton Scheme provides the best economic and environmental option to increase supplies.

The scheme is complex, relying on three separate components. Firstly, it involves a change to the Environment Agency's abstraction licence allowing water to be taken from the Ely Ouse at the Denver complex to be transferred towards Abberton, over 50 miles to the south-east. Secondly, the capacity of transfer pipelines that take water across catchments to get to Abberton will be enhanced and thirdly, the reservoir itself will be enlarged by around 60%. The scheme is complicated further by the need to ensure that the internationally important features of the water environment from the abstraction point to the reservoir would not be adversely impacted. The scheme is underway now and planned for completion in 2013.

Liz Scott, hydrologist for Essex & Suffolk Water, described how water resource modelling was used in the scheme development. The water resource system was modelled using Aquator and based on daily naturalised flow data for the period between 1933 and 1996. Liz explained how reservoir control curves and reservoir refill reliability matrices had been developed for the enlarged reservoir. She also described how supplies will need to be carefully managed during construction of the





raised reservoir and the options the company have in place to manage this risk.

Tom Nichols from the Environment Agency spoke about how the need for the scheme had been justified. He explained the EA's role as regulator and holder of the abstraction licences enabling the transfer of water from the Ely Ouse, and also its role in the water resources planning process and as adviser to Government on the water companies water resources management plans. Tom described how the Agency had worked with Essex & Suffolk Water to make improvements to the company's water resource management plan and the justification of need for the Abberton Scheme. This included changes to technical assessments, including deployable output and headroom assessment and ensuring that the plan considered measures to reduce demand and improve efficiency of water use.

Tom finished his talk by outlining some of the lessons learned and the importance of maintaining the relationship between the regulator and water company. He explained that the process had resulted in a robust plan that the Environment Agency could support and that would secure water supplies in Essex for the next 25 years.

Joe Pearce
Environment Agency

New members

Genevieve Ali.....University of Aberdeen
Alona Armstrong.....University of Glasgow
Phillip John Blaen.....University of Birmingham
Andrew Carthew.....Haycock Associates, Pershore
Andrew Chiverton.....University of Newcastle
Emily Day.....Haycock Associates, Pershore
Gemma Pamela Dooling.....University of Leeds
Rebecca Harrison.....University of Bristol
Kirk Hill.....Adas UK Ltd, Preston Wynne
Kieran Khamis.....University of Birmingham
Fazir Khan.....Alpha Engineering, Trinidad
Rajinder Kumar.....Envirocentre Ltd, Glasgow
Grace Garner.....University of Birmingham
Richard Milner.....University of Nottingham Trent
Brandon Parkes.....King's College London
Emma Quilan.....University of Aberdeen
Gavin Sharpin.....Environment Agency, Ipswich
Thomas Henry Alfred Swinscoe.....University of Leeds
Alun Lewis Thomas.....I&P Services Ltd, Birmingham
Dorothy Wilkinson.....I&P Services Ltd, Birmingham
Paul Wilkinson.....I&P Services Ltd, Birmingham
David Wilson..... In-Situ Inc, Banbury
Jefferson See Wong.....Bristol University
Fuad Abdo Yassin.....Arba Minch University, Ethiopia

AGU Fall meeting – I

San Francisco, USA
13–17 December 2010

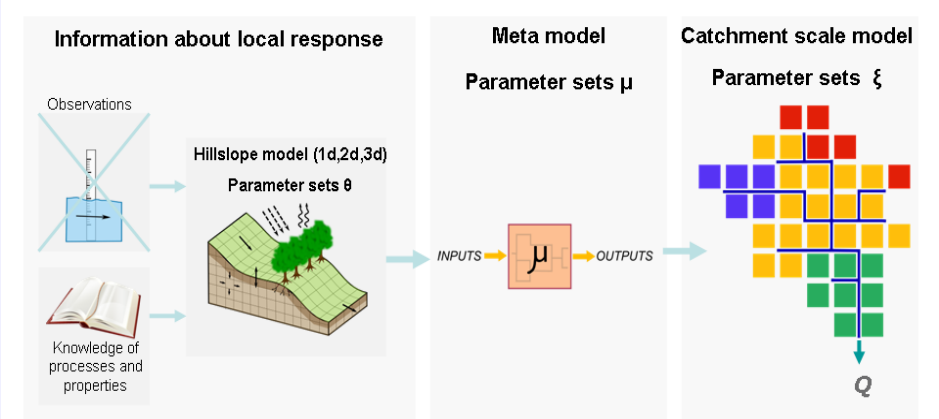
This year I was very fortunate to have received a travel grant from BHS to attend the AGU Fall meeting for the first time. Attending a meeting of such size and calibre was an invaluable opportunity to present and share my otherwise unpublished work and receive feedback from a wide range and high level of scientists.

I presented a paper entitled "Upscaling physics-based models to estimate catchment scale effects of localised land management interventions: an example of tree planting" (see diagram below) in the session *H14B: From Pores to Catchments: Coupling Hydrologic Concepts and Models Across Multiple Scales II*. The session touched on topics such as soil hydraulic properties, biogeochemical responses and snowmelt with a common theme across presentations of how information about these properties and processes can be transferred across scales. I found it very useful to hear about the different techniques and approaches that other scientists are using to tackle the same sorts of challenges that I am currently trying to address, albeit for different applications.

The conference was also a fantastic occasion to be exposed to the cutting edge research in my field, allowing me to understand the true context of my current research. Research publications are typically delayed by months or even years after the completion of the work; therefore conferences allow an early route for dissemination of state-of-the-art research. This was particularly beneficial to me, as I am approaching the end of my PhD (due to submit in May) and need to be able to present my research in the current context of my science.

Some of the presentations that I found particularly interesting and relevant to my work were talks on: hillslope modelling using tRIBs and how vegetation is observed to have a homogenising effect on runoff response by **Valeriy Ivanov** (Univ. of Michigan); the value of local knowledge in conceptualizing physically-based models by **James McNamara** (Boise State); and an interesting presentation of validation challenges and other issues for coupled hydrological models by **Claudio Paniconi** (INRS-ETE).

I also went to a number of talks that, although not completely related to my current field of research, were thought-provoking and inspiring. Some of these included: a compelling presentation on integrated water resources management concepts presented by **Peter Gleick** (Pacific Institute); an interesting case study of climate change adaptation strategies in the Napa valley by **Kimberly Nicholas** (Lund Univ.), and an historian's interpretation on why



Schematic diagram of the upscaling procedure presented at the conference

we don't believe in climate change despite the compelling evidence for it, by **Naomi Oreskes** (UCSD).

The AGU also provided a great opportunity for networking; I met a number of new researchers from across the globe that had common research interests. The poster sessions were in particular a great forum for engaging with other scientists. Overall I had an educational and enjoyable time at the AGU (even despite my delayed return to London due to the snow!), and I look forward to attending again in the future.

Caroline Ballard
Imperial College London

AGU Fall meeting – II

San Francisco, USA
13–17 December 2010

"The novelty has worn off"....."Miserable weather conditions"....."Snow fun anymore"....were the common complaints about the unusually high snowfall in the UK as I flew from snowy Edinburgh to snow-free San Francisco to present a poster at the AGU in a session entitled "Measuring, Monitoring and Modelling Snow Processes". One of the advantages of being a snow hydrologist is that, unlike many people, I become excited at every millimetre of snowfall I see, whether it occurs in the Arctic or in my back garden.

Once at the AGU, I found an avalanche of snow lovers at sessions taking place mainly on the Monday and the Wednesday afternoon. The sessions had everything you always wanted to know about snow but were afraid to ask: from micro scale[1] to remote platforms[2] snow measurements, from mountain[3,4] to prairie[4] environments and from enduring[5] to "burning"[6] issues in snow modelling.

I presented a poster entitled "Implementing an exposed vegetation parameterisation to investigate the effect of shrub-tundra expansion on snowmelt energetics" on the Wednesday afternoon, in the largest Cryosphere poster session of the week. I had heard that poster sessions at the AGU often provided a better opportunity to talk with other researchers than at oral sessions where the tight schedule rarely allowed for questions. Even so, I was a bit anxious that I would stay standing alone in front of my poster for two hours and get nothing out of it.

I could not have been more wrong. I was busy talking to land surface modellers, hydrologists and ecologists from all over the world for four hours.

The advantage of these large poster sessions is that a constant flow of people is generated by the huge number of posters on related subjects presented at the same time. The length of the session not only allowed me to present my research to many people but also allowed the scientists coming to my poster to talk to me about their research, as well offer comments or constructive criticisms about my work. The only downside of holding numerous sessions at the same time is that I did not have enough time to go round the hall myself and see other posters highlighting so much exciting research in my field.

I had also been keen to attend the AGU because there were a number of events in the last two days of the conference related to shrub expansion in the Arctic. A large body of evidence from field observations, remotely sensed data and models shows that the recent climate warming is leading to a 'greening' of the Arctic that can mainly be attributed to the encroachment of shrubs on tundra landscapes.

As indicated in the title of my poster, my research focuses on investigating the effect that shrubs have on the water and energy balance at high latitude. Investigating how, why or where shrubs are expanding has so far provoked more interest amongst circles of ecologists rather than hydrologists but it seems that we (the hydrologists) are increasingly realising the importance of including some ecological processes in our models.

Although I am not an ecologist, these sessions were the highlight of my trip to the AGU. I may have enjoyed the 'shrub sessions'[7] because they introduced an element of novelty for me, unlike some of the talks in the snow sessions where I



Waiting for the helicopter to drop the equipment to set up the camp in Wolf Creek, Yukon Territory.



Measuring canopy height and snow depth



Setting up a time lapse camera in February 2008 to capture the changes in shrub and snow cover from the end of winter to the melt season.



Taking a snow core to obtain snow density

am more familiar with the subject and therefore would have been more critical. Thus the conference gave me the opportunity to hear and meet the leading global change ecologists working on shrub expansion. I found it interesting to hear that one of their concluding remarks outlined the growing need for the ecology community to start including non-ecological processes affecting shrub growth in their models – e.g. snow. It was encouraging to see how scientists from two different disciplines, who first approached the same issue from different angles, were realising at the same time that working together was required to get a clearer picture of the issue.

With prospects of cross-disciplinary collaboration in mind, I flew back to Edinburgh and landed just two hours before the airport shut due to "heavy snowfall"…..

Cécile Ménard
University of Edinburgh

[1]C33A: Characterization of Grain Size and Other Snowpack Properties
[2]C12A: Characterization and validation of cold season land surface and hydrologic properties using remote sensing, modelling and assimilation
[3]C33B: Innovative Modelling and Snowmelt Partitioning in Mountain Environments
[4]H11G: Measurements and Modeling of Storage Dynamics Across Scales
[5]C21E: Quantifying and Modeling Spatial Variability and Wind Redistribution of Snow
[6]NH11B: Hazards Associated With Snow- and Ice-Capped Volcanoes
[7]GC53B: Greening of the Arctic I,II and III

Editorial

Amid all the doom 'n gloom about cuts and the perception that scientists have 'got it all wrong' over climate forecasting, it is good to report that hydrology as a career option seems to be growing in popularity. It's not exactly a proper survey, but I have been struck by the increasing number of enquiries in recent months from both prospective students and their anxious parents for advice on how to become a hydrologist, which I have done my best to assist.

Celia Kirby



Sixth World FRIEND Conference

Fez, Morocco
25–29 October 2010

The theme for the sixth Flow Regime from International Experimental and Network Data conference was 'Global Change: Facing Risks and Threats to Water Resources'. FRIEND aims to develop (by exchange of data, knowledge and techniques) a better understanding of hydrological variability in space and time, and so improve water resource management. This collaborative project in regional hydrology is acknowledged widely as one of the most successful projects within the UNESCO's International Hydrology Programme (IHP).

The objective of the conference was to present the results of the FRIEND research programme that have stimulated international cooperation to meet local and regional needs. The conference focussed on how advances in analytical techniques and process hydrology are improving the assessment of water resource variability and the impacts of environmental change.

Recent advances in water sciences concerning new research approaches for detecting hydro-hazards, evaluating the anthropogenic pressure on limited water resources and developing adaptation strategies to environmental change were presented by participants. Several methods to quantify large scale hydroclimatological variability at different time resolutions and spatial scales, as well as new developments for environmental information and monitoring systems were introduced. The need for integration and collaboration between the different disciplines to model and predict the change for water resources and future freshwater availability was emphasized. The presentations and following discussions about data collection, management and sharing issues highlighted the importance of the links between data users and data originators.

I had an opportunity to present an oral paper entitled "Changes in precipitation and river flow in northeast Turkey: associations with the North Atlantic Oscillation" which is jointly authored by David M. Hannah and Warren J. Eastwood from the University of Birmingham. We aimed to explore linkages between seasonal NAOI anomalies, precipitation and river flow in the northeast region of Turkey. It is important to quantify the relationship between river flows, regional climate and atmospheric circulation to be able to understand changing hydroclimatological processes, and contribute to the sustainable management of freshwaters in this region. Northeast Turkey is a large and diverse region which is characterised by two closely located but distinct river basin areas providing a significant amount of water input. Our results indicate a highly complex precipitation and river flow patterns for the region while revealing the higher river flow response of some sub-basins to strong NAO phases. Evaluating

only the NAO patterns seems to be inadequate for identifying the hydroclimatological process cascade from large-scale circulation to surface conditions. Therefore, further research needs to be done to better understand the sensitivity of surface hydroclimatology to large-scale circulation for the northeast Turkey.

By attending this conference, I improved my knowledge about the recent studies and contemporary approaches on examining and modelling the large-scale hydroclimatic variability and impact. The discussions during and after the sessions (that's me in the centre of the photo), helped to gain a clearer insight on the perspective of the FRIEND programme. It was an excellent opportunity to meet with the wider scientific community of similar interest, discussing ideas and possible collaborations for future work. It was also quite exciting to share part of results from my PhD project which provided me the opportunity to consider different dimensions to my research. I thank BHS for providing some support to attend the meeting.

Faize Sans
University of Birmingham

'Moors to Shores' Heritage Project

The South Yorkshire Biodiversity Research Group is a non-profit making organisation with a range of interests across environmental conservation, archaeological study, geology and landscape history. They are developing a heritage project to discover changing farming practices and rural memories from the early 20th century throughout central Yorkshire. This follows the river system from the high moors, through the foothills to the coastal plains.

The aim is to address the loss of cultural memory by reaching out to communities of urban fringe and rural Yorkshire getting their involvement in gathering memories, stories and traditions to create a better understanding of how land was managed in the past. It will draw out what individuals and communities value about their farming and rural heritage and uncover the common links and differences between communities along a river system. The target audience will be older people but we would like to involve all age groups in the collection and recording of the information via the internet, community workshops and individual interviews.

Over the last 200 years but especially since the early and middle 20th century, there have been huge changes in the way that land has been used for farming. In many areas there has been a noticeable break with past farming land use due to creeping urbanisation and with it a dramatic loss of knowledge at a local level. Following a river system from the 'Moors to the Shores' will allow us to look at the responses to impacts of flooding and climate change in the past and the lessons that may be learnt for the future. Stories and memories from the past ensure our communities social, cultural and economic history are understood in the present and preserved for the future.

If any BHS members would be interested in contributing to this venture, please contact **Christine Handley** via site www.ukeconet.co.uk for more details. We understand that SYBRG group operates in an informal way so that members can pursue their particular interests and contribute to the surveys and projects that are taking place. A small management committee oversees the work of the group and this includes planning and carrying out surveys and organising events. In 2007 the group successfully ran a woodland heritage project with local groups across England which resulted in the publication of a woodland heritage manual.

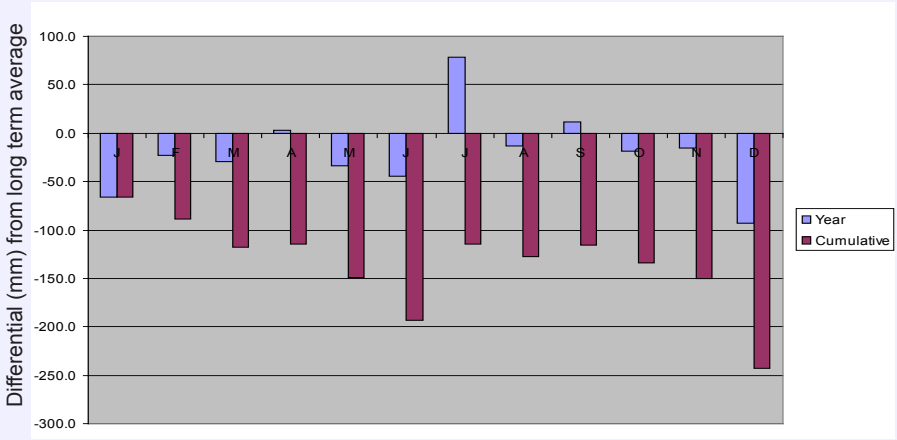
The ‘D-word’?

It may seem strange in the depths of winter, with snow lying and ongoing talk of the potential for a rapid thaw to cause flooding problems, but do we need to consider whether we are actually in a drought situation? There, having mentioned the dreaded ‘D-word’ it will now doubtless rain heavily for the next few weeks/months!

There are many definitions of drought but the most common would generally be accepted as a “significant period of below-average rainfall”. The potential impact of that rainfall deficiency might also be brought into the definition i.e. whether it is sufficient to cause problems for agriculture or water supplies. In Scotland, at least, we have certainly had a significant period of below average rainfall, as shown below, although there are regional differences: eastern Scotland received approximately long term average rainfall for the year 2010 but western Scotland was 305mm (18%) and northern Scotland almost 390mm (24%) below the 1971-2000 average. It’s probably too early in the year to say whether we will experience problems of supply but one can’t help starting to draw parallels with the weather patterns and river flows of the winter of 2009-10, and to look at current below-average reservoir stocks (for both water supply and hydropower generation), to wonder whether we should actually be starting to consider the increased management of those resources to avoid a recurrence of the issues experienced in May and June of 2010.

As usual, the views expressed are my own and do not necessarily reflect those of the Agency for which I work.

Nigel Goody
Water Resources Unit Manager, SEPA



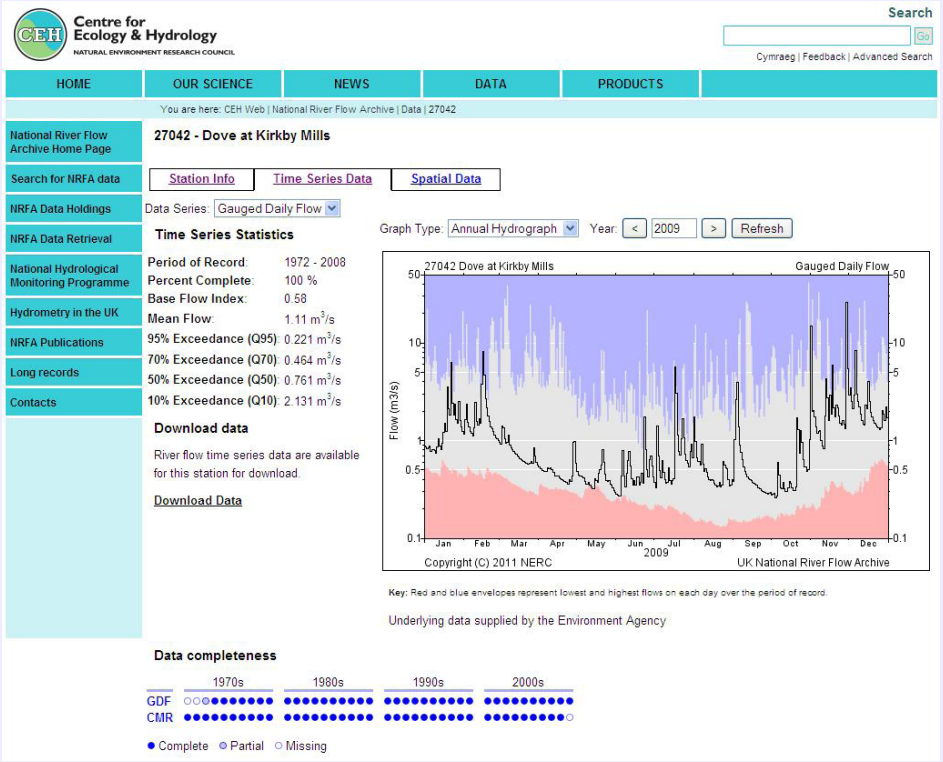
2010 rainfall differentials for Scotland

New ways to access CEH data

Two recent developments are enhancing access to data from the Centre for Ecology and Hydrology (CEH). Firstly, the National River Flow Archive (NRFA) has launched its new website, enabling improved dynamic access to gauging station information and river flow data. Finding gauging stations of interest can be performed by browsing the interactive map or searching by gauging station information (station number, river, hydrometric area, etc.), or catchment or flow statistics (mean flow, BFI, urban extent, etc.).

Having found a station of interest, information is arranged across a series of pages relating to the station (station type, operator, station description, etc.), to its time series data (start and end of flow series, completeness, mean flow, BFI and other flow statistics, availability of flows and catchment monthly rainfall, etc.), and to its catchment's spatial data (maps and statistics showing catchment elevation, land cover and geology). Within the time series data pages the user can also display a hydrograph of the most recent year of data or a flow duration curve derived from the entire record. Over 200 gauging stations have downloadable flow data, which can be accessed in a csv format from the station's time series data page, and for these stations a scrollable hydrograph for the entire record is available.

The NRFA is currently in the



Example of a gauging station time series data page within the new NRFA website

process of validating the entire flow series for an additional 200 stations and these series will also be made available via the website in the near future. Data for all c.1450 stations on the NRFA are available via the NRFA's enquiries service, and a series of pages on the website provide information on the retrieval options available. Additionally there are pages detailing the NRFA data holdings, including definitions and derivations of the statistics displayed, and providing links to other organisations giving access to hydrological data.

The new website also provides comprehensive access to the outputs of the National Hydrological Monitoring Programme including the monthly Hydrological Summary, Hydrological Yearbook, and reports on major flood and drought events (e.g. the summer 2007 floods). The website also features new material providing a background to the UK gauging station network and to hydrometry in the UK.

The website can be found at www.ceh.ac.uk/data/nrfa. Members' views on the style and content of the pages, as well as suggestions for additions and improvements, are welcome. Please email nrfa@ceh.ac.uk. Further enhancements are planned for the coming year, including improved mapping of catchment boundaries, river networks and spatial data layers such as rainfall and land cover.

CEH has also just launched the CEH Information Gateway, a new web portal that provides researchers and the wider public with quick, easy and direct access to a diverse range of environmental data. The Gateway is the first major output of the Environmental Information Data Centre (EIDC), the NERC Data Centre for the Freshwater and Terrestrial Sciences. The EIDC hosts a wide variety of datasets including many nationally and often globally unique long-term datasets. It brings together data facilities such as the Biological Record Centre, the National River Flow Archive, the UK Environmental Change Network, Countryside Survey and the NERC Environmental Bioinformatics Centre. The Gateway allows users to:

- Search the data catalogue and read descriptions of the nature and scope of datasets
- View, access and overlay maps of key spatial datasets
- Download key datasets (subject to terms and conditions of use)
- Create a personal account to save search terms and give feedback on dataset usability

Some 180 metadata records can currently be seen on the Gateway and more than 50 datasets can be downloaded directly. Particular highlights of interest to Circulation readers include:

- NRFA Hydrometric Register and Statistics 2005: downloadable Excel file of gauging station information, flow and catchment statistics as well as a web map service (WMS) of gauging station locations.
- Plynlimon Research Catchments: over 30 years of streamflow data and over 20 years of cloud, rainfall and streamflow chemistry from sites across the Plynlimon catchments, as well as GIS layers including elevation and inflow grids, river networks, soils, etc.
- Environmental Change Network: meteorological, chemical and biodiversity data from 12 terrestrial and 45 freshwater sites
- Land Cover Map 2000: CEH's Land Cover Map summarised to 1km scale
- Long-term monitoring data from Loch Leven and the Cumbrian Lakes

The CEH Information Gateway can be accessed at gateway.ceh.ac.uk.

New book:

Letters in applied hydrology

In case **Duncan Reed**'s mailing has not been sufficiently encyclopaedic, please note that you can find details of the book by a web-search on DWRconsult.

Because the book does not have an ISBN, and is only available through Lulu, searching on the book title alone may not get you very far.

The NERC Delivery Plan

For those who have not seen the full document, we thought it useful to highlight a few of the issues which have direct impacts on many BHS members.

Research training

Providing the highest quality training environment for the next generation of scientists is a priority:

- Doctoral training: NERC is to maintain doctoral training numbers (currently some 460 graduates per year).
- In line with the public sector pay freeze and Research Council policy, doctoral training stipends will be frozen for at least two years.
- To build critical mass and quality, doctoral training is to be concetnrated in clusters of excellence and by supporting collaborative research and training with industry and the third sector. Such multidisciplinary doctoral training clusters wil become an important mechanism to deliver future strategic skills needs.
- Also in line with other Research Councils, NERC will withdraw from supporting taught Masters training, to focus training funds where they can provide the biggest strategic benefit.

Research programmes

The challenge-led strategic reserch programme identifies seven priority themes, including Climate Systems and Natural Hazards, under which comes:

Changing Water Cycle: to develop predictive capability of the intensified water cycle and its impacts, so as to enable business and government to build reslience, mitigate problems and adaptive solutions to flooding, drought and water quality issues.

Travel grants

Travel grants are awarded from the Society's general funds to help BHS members whose travel expenses to attend scientific meetings are not met by an employer. Applicants should have been members of the Society for at least six months. The amount will depend on the nature and location of the meeting and the case put forward.
Priority is given to members under 35 or retired from employment, who are presenting papers and who have not previously received support from BHS. Successful applicants will be expected to write a short report for *Circulation*.
Travel grant applications should be made to the Hon Treasurer at least two months before the conference or meeting.
The Exeter Fund, administered by the Society, offers grants to British hydrologists to take part in IAHS / IUGG events.
To apply, use the form at *www.hydrology.org.uk/about_awards.htm* or contact **Nigel Goody**, SEPA, 7 Whitefriars Crescent, Perth PH2 0OPA *(tel 01738 448806, email nigel.goody@sepa.org.uk)*.

Anyone planning on going to the IAHS Scientific Assembly in Melbourne (3–10 July 2011) please note that the closing date for receipt of applications for grants from the Exeter Fund administered by BHS for attendance at IAHS meetings will be 31 March 2011.

UK Committee for EIAHS

David Hannah, who has recently joined the BHS Committe as the IAHS rep., has kindly let us have the following listing of useful contacts:

Continental Erosion
Prof. Des Walling, University of Exeter
d.e.walling@exeter.ac.uk

Coupled Land-Atmosphere Systems
Dr Eleanor Blyth, Centre for Ecology and Hydrology
emb@ceh.ac.uk

Groundwater
Dr Corinna Abesser, British Geological Survey
cabe@bgs.ac.uk

Remote Sensing
Prof. Ian Cluckie, University of Swansea
i.d.cluckie@swansea.ac.uk

Snow & Ice; Chair of UK Panel for IUGG
Prof. David Collins, University of Salford
d.n.collins@salford.ac.uk

Surface Water; UK National Representative for IAHS; Chair of UK Committee for the IAHS
Dr David M. Hannah, University of Birmingham
d.m.hannah@bham.ac.uk

Tracers
[to be confirmed]

Water Quality
Dr Kate Heal, University of Edinburgh
Kate.Heal@ed.ac.uk

Water Resources Systems
Prof. Enda O'Connell, University of Newcastle-upon-Tyne
p.e.o'connell@ncl.ac.uk

BHS President
Dr Andrew Black, University of Dundee
a.z.black@dundee.ac.uk

Hydrology Research: Editorial Board changes

Prof Paul Bates (Bristol University) has joined the Editorial Board, replacing Prof Ian Cluckie who is standing down. Ian has contributed a breadth and depth of experience to help the journal through its early years (during preparations for and following the re-launch of Nordic Hydrology as Hydrology Research in 2008) but his duties as Pro-Vice-Chancellor (Science and Engineering) at Swansea University have led him to believe it was time to let someone else have a go. We are sorry to lose someone of Ian's standing nationally and internationally from the EB. We hope he will remain a strong supporter of the journal.

Paul is best known for his reach-scale flood inundation modelling work, particularly using remotely sensed data; his wider interests encompass resilience, uncertainty, governance and decision-making in relation to natural hazards and global water issues. He has also been appointed as director of the University of Bristol's new multi-disciplinary Cabot centre for environmental research.

The full Editorial Board has 30 members, drawn from the international hydrology research community: five from the UK; five from Nordic countries; and the remainder from around the world (see http://www.iwaponline.com/nh/default.htm – IWA Publishing Journals – Editorial Board). We therefore extend a warm welcome to the EB to Paul who joins **Hannah Cloke** (King's College, London), **Neil McIntyre** (Imperial College, London), **Howard Wheater** (University of Saskatchewan, Canada), **Paul Whitehead** (Oxford University), **Andrew Black**, (BHS President) and myself on the UK Steering Group for Hydrology Research (UKSGHR). BHS members are encouraged to contact any member of the UKSGHR if they have comments they wish to make concerning how HR can best serve the interests of the home hydrological research community.

Ian Littlewood
Editor (BHS) Hydrology Research: an International Journal

Forthcoming events

First announcement:

Hydrology in a changing economic climate

3rd May 2011

Instituion of Cvil Engineering, London

Organiser – Claire Walsh, Newcastle University

The May 2010 General Election in the UK brought a change in government and with it a change in approach to the way the public sector is funded and carries out its work. The funding that the Environment Agency receives from central government is being reduced by around 18%, with capital spend on flood and coastal risk management work being reduced by approx. 27% next year compared with this year. Localism and the Big Society are concepts that all public sector organisations are expected to engage with. The impacts of these on the way hydrologists carry out their work are unclear.

This meeting will be an opportunity to review the impacts of the changes on practising hydrologists in England and Wales, to hear more about them from speakers from the Environment Agency and Defra, and to discuss how to make the most of the changes.

Further details will be made available via the BHS website and mailing list.

River Basin Management 2011

25-27 May 2011
Riverside California

6th International conference on river basin management including all aspects of Hydrology, Ecology, Environmental management, Flood plains and Wetlands

Organised by Wessex Institute of Technology

www.wessex.ac.uk/rbm2011rem4a.html

Diary

17 March 2011
Water footprints – who are they for?
BHS South East Section
Time: 18.30
Location: ICE, London
Contact: Jo Wakefield (Tel: 01372 756693)

12–13 April 2011
BHS Peter Wolf Early Career Hydrologists' Symposium
Location: Lougborough University
Contact: Rob Wilby (Tel: 01509 223093)

18–21 April 2011
Advances in River Science 2011
Organised by: UK Flood Risk Management Research Consortium
Time: 10.00
Location: Swansea University
Contact: Alex Henshaw (Tel: +44(0)1792513126)

18–21 April 2011
WRaH 2011
BHS/Royal Meteorological Society International Symposium
Weather Radar and Hydrology
Organised by: BHS & Royal Meteorological Society
Location: University of Exeter
Contact: Bob Moore (Tel: 01491 692262)
Full details: www.wrah2011.org

2–5 May 2011
HydroEco'2011
3rd International Multidisciplinary Conference on Hydrology and Ecology
Ecosystems, Groundwater and Surface Water - Pressures and Options
Organised by: Location: Vienna, Austria
Contact: Prof. Hans-Peter Nachtnebel (hans_peter.nachtnebel@boku.ac.at)

6th June 2011
Joint BHS/CIWEM meeting
Location: ICE, London
Further details to follow.

Copy deadline for Circulation No. 109 21st April 2011