No. 62 August 1999

THE NEWSLETTER OF THE BRITISH HYDROLOGICAL SOCIETY

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7th National Hydrology Symposium —

Newcastle University 6 – 8 September 2000

The BHS Millennium Symposium will be held in Newcastle next year. This will be the seventh in a very successful series of such meetings, which (as in the past) will particularly welcome submissions from working hydrologists, who might not normally submit papers to journals, and from younger members.

The theme will be *'Balancing water and land developments with human and environmental concerns'*. There will also be discussion of two major hydrological initiatives: *Catchment Hydrology and Sustainable Management* (CHASM) and *Lowland Catchment Research* (LOCAR).

The first announcement, inviting preliminary registration and the submission of abstracts, is enclosed with this issue.

Papers will be pre-published in a BHS Symposium volume.

BHS Postgraduate Symposium

The annual Postgraduate Symposium will take place in Newcastle on 4th and 5th September, immediately preceding the National Symposium, so that postgraduates can attend both events.

BHS Annual General Meeting

Next year's AGM will be an integral part of the Symposium, and all members are encouraged to participate.

President's Piece

The Society continues with some notable firsts, not just for its members but also for the wider world. We were delighted when the Department for International Development, through its Senior Water Resources Adviser, **Ian Curtis**, responded positively to our request for funding support for a course for developing nation hydrologists. To tight deadlines, BHS ran this in deliberate conjunction with the IAHS stream at IUGG'99 to give maximum benefit to those who otherwise would have missed this great learning and networking opportunity. My thanks **to Dr Adrian Butler** who organised and led the course at Imperial College, ably assisted by his colleagues there, **Prof. Howard Wheater** and **Dr Matthew Lees**. **Henry Gunston** (Institute of Hydrology) ably ran the administration for us.

Just as at the Exeter Conference, the international spread was most striking. Those attending the course came together on *16th July* at Imperial College, from Tanzania, Zambia, Zimbabwe, South Africa, Mauritius, Oman, Jordan, the West Bank and Colombia. The theme was advances in modelling as practised in the UK (and of relevance overseas).

As I write the IUGG Assembly is about to commence. The degree of work for Birmingham University staff, over and above normal life, should not be underestimated. Government and society alike should be grateful for their efforts to keep the UK in pole position in international science events organisation. BHS in particular is grateful to **Prof. Angela Gurnell** for setting up the Reception, given jointly by BHS and the NERC Centre for Ecology and Hydrology, for attending hydrologists on *20th July*. At it, each person will receive the new Occasional Paper No. 10, which presents Hydrological Research in Britain 1995-1999.

Every BHS member will receive a free copy to celebrate the end of the millennium. If you haven't received it, please do contact me. We are also placing copies with strategic bodies and libraries. **Celia Kirby**, to whom we are again indebted for cajoling us all to produce the necessary text prior to her final editing, will welcome nominations for additional worthy recipients. The arrival from the printers of the boxes of copies in the week before IUGG'99 was a great encouragement to me.

The last check presented by Terry Evans, our Treasurer, showed in excess of 800 active members for the first time. It is clear that we are maintaining the resources to attain almost any new idea to which we really put our minds. I know that our new President, Prof. Howard Wheater, will encourage you to become as fully involved as possible.

In the academic world the great news is that NERC has not only funded a major new thrust to investigate the complexities of permeable lowland catchments, it has also overseen the Joint Infrastructure Fund award of new Wellcome Glaxo/ Government money to instrument seven catchments for hydrological purposes. The large consortium for this is led from Newcastle University, which will also be the scene of the BHS Millennial year National Symposium, now set for *6th–8th September 2000*. **Prof. Ian Calder** and his committee have begun to develop an attractive and worthwhile programme. A new feature will be that the BHS Post-Graduate Symposium will immediately precede the event, so that the 30 or 40 who come to that will have the chance to stay on and get additional impetus for their careers. So book the dates and prepare to offer those abstracts of your latest work!

Frank M. Law

President's prize



Nominations are invited for the BHS President's Prize (worth £200). This is for Services to Hydrology, and can reflect either service through BHS or that which is delivered more directly. It isn't an OBE, but it does enable the Society to recognise worthy work for the wider good through hydrology.

Nominations are acceptable in any form that will reach myself as outgoing President at least one week before the AGM on *22nd September*. There is no form or format for nomination; it should come from an individual member of BHS and give their reason for nominating either an individual BHS member or a team that includes a BHS member in a substantial role.

The address for nominations is Frank M. Law, Institute of Hydrology, Wallingford OX10 8BB, fax 01491 692430, or email f.law@ioh.ac.uk

Advertisement

ADAS CONSULTING LIMITED

ADAS

Introduction

ADAS is a leading international consultancy to the land-based industries, providing services in agriculture, horticulture, food & drink and environmental markets. ADAS Consultancy is backed by the findings and results from its ten internationally renowned Research Centres and state of the art laboratories.

The ADAS Hydrology Group provides a centre of expertise within ADAS on the hydrological factors influencing runoff from agricultural land and land-based industries, transport of contaminants and the design requirements for engineering hydrology schemes incorporating the latest developments in the industry. The group can also draw upon the specialist skills of other ADAS Consultants, based throughout England and Wales, for any particular job if necessary.

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- Low flow and drought analysis
- Irrigation reservoirs, dams and conservation ponds design

Other associated services

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- Soil moisture measurement
- Soil property testing

Contact: **Graham Harris,**
ADAS Gleadthorpe Research, Meden Vale, Mansfield, Notts, NG20 9PF
Tel 01623 844331 *Fax* 01623 844472
Email graham_harris@adas.co.uk

New members

We welcome the following members to the Society:

Stephen P Anderton	School of Engineering, University of Durham
Andrew Daugherty	Bedlington, Northumberland
Sushil Kumar Jain	Delhi, India
David McKenna	Cass Associates, Liverpool
Prof. W Jim Shuttleworth	University of Arizona, Tucson, USA
Prof. Vijay P Singh	Louisiana State University, Baton Rouge, USA
Mark Walters	Environment Agency, Leeds

Diffuse pollution: solutions and innovations

IAWQ conference Perth, Western Australia 16-20 May 1999

The theme of the IAWQ (International Association on Water Quality) meeting in Perth, which I attended with the support of a BHS travel grant, was "*Solutions and innovations*".

Not surprisingly, there was good representation from Australians, especially those interested in measuring and managing the loss of phosphorus from non-point sources. Several delegates came from the USA and South Africa, but the UK was represented by just two Universities, Sheffield and Reading (with two delegates from each), and there was noone from the rest of Europe.

The opening keynote paper by **Prof. Peter Cullen** (University of Canberra) provided an excellent overview of the challenges of managing diffuse pollution. The following sessions covered a wide range of themes, opening with *Source identification* and *Estimation and best management practices and management targets*, and followed by presentations examining the *Legal and Regulatory Framework*.

Much of the focus of this first day was on salinity, which is becoming an acute problem in much of southern Australia (papers by **Dr Bob Nulsen** and **Dr Richard George**), and on phosphorus loss from diffuse sources (**David Weaver** and **Robert Summers**). Until recently most research has focussed on diffuse phosphorus loss in Australia, although the significance of nitrogen dynamics, particularly in estuaries, has now been recognised.

Day two opened with two keynote presentations: **Dr Bruce Mitchell** (University of Waterloo, Canada) on partnership arrangements to address diffuse pollution issues, and **Prof. Bob Kuzelka** (University of Nebraska-Lincoln, USA) on protecting groundwater.

The paper sessions then split into two themes under the general theme of *Source identification and estimation*: (i) agriculture – pesticides and erosion, and (ii) groundwater.

The groundwater session focussed mainly on nitrate. **Prof. David Lerner** (University of Sheffield) presented research on managing non-agricultural nitrates in UK groundwater, and **Dr Claus Otto** examined urban groundwater vulnerability to nitrate pollution in Western Australia.

The following session (*Best management practices and management targets*) focused on the management of diffuse phosphorus losses. Papers ranged from best management practices for dairy shed effluent to modelling P loss using a critical source areas approach (**Prof. Louise Heathwaite,** University of Sheffield) or systems approach (**Prof. Tony Jakeman,** University of Canberra and **Dr John Hutson**, University of Adelaide). The final session again examined the *Legal and regulatory framework*, and included a paper by **Prof. Terence Centner** (University of Georgia, USA) on US regulations controlling diffuse animal waste pollution. Day three was devoted to an excellent field trip to look at groundwater protection measures on the Jandakot Mound just outside Perth and controls on macroalgae blooms in the Peel Inlet and Harvey estuary, south of Perth.

The trip included an 'authentic' Australian bush tucker lunch, with delights such as emu, goat and witchety grubs (I was glad I am vegetarian!). We also visited one of the ubiquitous wineries in Western Australia – perhaps nutrient and pesticide losses from the ever-increasing area of vines in the region will be the next major non-point pollution problem?

The final plenary day saw a number of papers, including two from the University of Reading. **Dr Penny Johnes** reviewed European control strategies and policy implications for the European Community, and **Prof. Paul Whitehead** presented a new model to integrate nitrogen and phosphorus modelling at the catchment scale. The meeting closed with a presentation by **Dr Graham Harris** (CSIRO Land and Water) on the future needs of research into diffuse pollution issues.

Louise Heathwaite,
Dept of Geography, University of Sheffield

Recent grants for research in hydrology

The following grants have been awarded (submitted by Dr Andy Baird, Lecturer in Physical Geography, University of Sheffield):

How does biogenic gas accumulation affect water flow through bog peat? £148 000 from NERC to Dr Andy Baird (University of Sheffield) and Dr Susan Waldron (Scottish Universities Research and Reactor Centre).

Determining short-term changes in the flooding regimes of climatically sensitive playas using remotely sensed data. £23 213 from NERC to Dr Rob Bryant (University of Sheffield).

Controls upon the magnitude, timing and bioavailability of terrestrial nutrient delivery to high Arctic fjords. £31 961 from NERC to Dr Andy Hodson (University of Sheffield).

Application of large eddy simulation for understanding natural river flows. £151 230 from NERC to Dr Stuart Lane and Professor Keith Richards (University of Cambridge) and Professor Rob Ferguson (University of Sheffield).

The long-term mobility of gravel in rivers: remapping the Allt Dubhaig tracer pebbles. £23 268 from NERC to Professor Rob Ferguson (Univ. of Sheffield).

Hydrology in Finland

The Institute of Hydrology Library has received a copy of a delightful illustrated 32-page A4 booklet (all in English) on "90 years of hydrology in Finland". For those interested in cold regions or lake hydrometry, this can be heartily recommended.

Anyone who follows hydrological history will enjoy reading that "The diffusion of the new theories to the northern peripheries took some time. *In Academia Aboensis*, the first dissertation correctly explaining the structure of the hydrological cycle was published in 1732". Those who love big floods can read of the poem about the Keski Flood on the Tornio River in 1677, and of the 1899 Flood (The Deluge of the Broken Oath of Czar Nicholas II). The formal floodmarks in Finland have been supplemented by noting lichen changes on lake shore cliffs, which are said to preserve flood effects. Understandably the formation of Finland's Hydrological Bureau is attributed to the Senate committee that reviewed the damage this deluge caused.

Interestingly, because of the dominance of lakes (>100, 000) in its hydrometry, the Bureau has always undertaken very precise levelling nationwide of those lakes and their staff gauges. The first water level observations measurements, which are still continued, go back to the 1840s. In 1859 the 800 000 ML (yes, that big!) of Lake Hoytianen waters escaped "suddenly" to a canal under construction and the lake ended up 10 metres lower, having drained 170 km^2 along its shores! Finland claims to have pioneered lake evaporation measurement, using floating pans, as far back as the summer of 1912.

Our Finnish colleagues record their largest current meter observation as 3700 cumecs in the June 1968 "One Hundred Years Flood" event on the Tornio River: it took six hours' effort, after two days of getting the cable over the river. The drought of the century now closing is identified as that of 1940-42, with the 1990s not far behind—not unlike parts of southern England.

Small basin catchment research (0.07 to 120 km^2) gets coverage, claiming a seventy year ancestry, with no less than 50 catchments of diverse terrain measured in the 1930s and beyond, some still running. One water balance, akin to Plynlimon, illustrates forest area drainage at the start of the 1960s right through clear cutting in 1981 to regrowth effects subsequently. The national summary of Finland's regional water balances is not surprising to those who know their UK numbers. Actual evaporation of the Arctic Ocean river basins is 200 mm a^{-1}, whereas on those draining to the Gulf of Finland 420 mm a^{-1} applies for the same reference period of 1961-90.

Water quality sampling and analysis began quite systematically by 1911 and continued until stopped by the 1930s depression. However a classic summary publication by Holmberg was achieved before that happened and observations began again in 1961.

55 groundwater level network sites are supplemented by no less than 400 soil frost measurement points, all handled by the Finnish Environment Institute with its modern-day Division of Hydrology and Water Management, to be found at http://www.vyh.fi/eng/fei/hwm/hwm.htm

The Finnish Environment Institute is to be congratulated on a most readable publication, which no hydrologist venturing from here into the Baltic nations should ignore. A final inducement to Agency hydrometric staff to arrange a secondment to Finland — the biggest ever gold nugget in that country, weighing 395 g, was found in the Lanioja brook!

Frank M. Law

Circulation publication schedule, 1999-2000

To ensure that members know when to expect *Circulation*, and to control the number of special mailings, the committee has agreed a timetable as follows:

November 1999 (issue 63):

Copy to reach the editor by	4 October
Committee meeting	13 October
Fliers/inserts to the ICE by	5 November
Reaching UK members by	22 November

February 2000 (issue 64):

Copy to reach the editor by	3 January
Committee meeting	12 January
Fliers/inserts to the ICE by	4 February
Reaching UK members by	21 February

May 2000 issue (issue 65):

Copy to reach the editor by	20 March
Committee meeting	29 March
Fliers/inserts to the ICE by	20 April
Reaching UK members by	8 May

August 2000 issue (issue 66):

Copy to reach the editor by	3 July
Committee meeting	12 July
Fliers/inserts to the ICE by	4 August
Reaching UK members by	21 August

Making better use of water resources

CIWEM National Conference 19 May 1999

Jenny Thorne, a research assistant and PhD Student at the Centre for Water Systems, School of Engineering & Computer Science, University of Exeter, summarises the Chartered Institute of Water and Environmental Management one-day conference, which she attended with the help of a BHS travel grant.

This successful CIWEM conference was arranged with the intention of promoting and discussing new and innovative ways in which we can better use and conserve water resources. I was fortunate enough to receive financial assistance from the British Hydrological Society, which enabled me to attend and to present a poster paper of my current research at Exeter University.

I was keen to attend this conference, because the issues covered

technical and scientific case studies of water resources and supply, as well as incorporating areas of social, economic and regulatory importance.

The papers presented covered a wide range of issues. A keynote address from **Dr Geoff Mance** (Director of Water Management for the Environment Agency) opened the conference: he asked 'Why the UK is not awash with water'. Also discussed was the concept of water companies promoting efficient use by customers. Both of these areas highlighted the great need for demand management before new water supply sources are constructed. This provoked interest related to my research, since I am investigating to what degree water demand would have to be reduced, in specific water sources in the Southwest of England, for public water supply to be maintained.

Of particular personal and professional interest to me was the presentation by **Professor Chris Binnie** (Deputy Chairman of Binnie Black & Veatch), considering an economic approach to dam raising. This presentation also concentrated on the issue of demand management currently used to cope with much of the natural increase in domestic demand. However, it was debated whether, although leakage minimisation is stabilising demand levels, additional water resources will still be required to maintain the supply/demand balance in the future.

The New Millennium Experience Company delivered an extremely interesting presentation – and a particularly relevant one because of the approach of the new millennium. They are collaborating with Thames Water to design a water recycling system for the Millennium Dome. The environmentally friendly project will treat and reuse the rainwater from the dome roof, grey water from handbasins in the toilet blocks and groundwater from beneath the site. Alongside these recycling measures, water efficient devices will be installed in three of the core toilet blocks, producing results for a programme of research into the effectiveness of water conservation measures. With a potential of up to 55,000 visitors every day, the Millennium Dome will undoubtedly increase public awareness of water conservation and water recycling initiatives.

To summarise, the conference presented me with valuable new ideas and experiences. In addition to the benefit gained from attending presentations with direct relevance to my own work there was also opportunity to network with professionals from the field of water resource management.

Jenny Thorne
University of Exeter

News from members

Doug Wilson has recently moved from Thames Water to take up a newly-created role as an eco-hydrologist within the Environment Agency's Thames Region. He can be contacted on 0118 953 5743 or via email on *doug.wilson@environment-agency.gov.uk*.

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Former BHS President **Professor Susan Walker**, who left the Environment Agency in February to move to Braemar with her family, is now doing research work with the Geography Department at Aberdeen University, and has also set up her own consultancy firm, Sue Walker Water Management Ltd, specialising in integrated river basin management. Sue can be contacted by telephone or fax on 013397 41619, or at the University.

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Congratulations to **Dr Paul L Younger**, Hon. Secretary of the Society from 1995 to 1997, who has been promoted to a personal Readership in Water Resources. This is within the Water Resource Systems Research Laboratory, Department of Civil Engineering, University of Newcastle, where Paul has been Lecturer in Water Resources since October 1992. Before that he spent several years working for the National Rivers Authority and the United Nations Association, following the completion of his PhD in 1989. The promotion follows an independent review of his research record — particularly in mine water and karst hydrology — by an international panel of independent referees.

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There has been a significant personnel change in Hydrometry in the Environment Agency. **Jim Waters**, BEM, Midlands Regional Hydrologist, Chair of the Agency's National Hydrometry Group and of BS sub-committee CPI 113/1 (Velocity Area) has retired: Jim's considerable experience in Hydrometry in England and Wales will be greatly missed. **Rod Furnell**, Hydrometry & Technical Systems Manager, North West Region, is the new Chair of the National Hydrometry Group.

BOOKS

Encyclopaedia of Hydrology

I apologise that some details given in *Circulation No. 61* about this book were incorrect. It should have read: *Encyclopaedia of Hydrology and Water Resources*, edited by R.W. Herschy and R.W. Fairbridge. Kluwer, 1999. 832pp. Price about £250. ISBN 0 41274060 5.

Earth Summit "roadmap"

For those wanting to track the international sustainable development agenda in the build-up to the third UNED Earth Summit in 2002, there is a useful web site that directs you to the issue you are interested in and the forthcoming events associated with it: http://www.uned-uk.org/roadmap/.

UNESCO reports

Two more reports from UNESCO, volumes 58 and 59 in the *Studies and reports in hydrology* series, are now available in the Institute of Hydrology's new library *(tel 01491 692266)*.

The first is *Water resources of hard rock aquifers in arid and semi-arid zones*, edited by Prof. J W Lloyd. It describes the hydrogeological setting of hard (igneous intrusive and metamorphic) rocks and the methodologies for assessment and sustained exploitation of their groundwater resources in semi-arid and arid areas, especially in developing countries.

The second, *Management and conservation of the African Great Lakes*, is edited by Ruud C M Crul. It derives from IHP-IV project M-5.1 (Comparative and comprehensive study of Great Lakes) and brings together the last 15 years' work on the limnology and hydrology of the African Great Lakes Victoria, Tanganyika and Malawi.

Travel grants

Travel grants are available to help members whose travel expenses are not met by an employer to attend scientific meetings. There is no limit on the amount of an award, but it will normally depend on the nature and location of the meeting and the case put forward by the applicant.

The scheme is primarily intended to help younger members, who will be given priority, but it is open to all. Successful applicants will be expected to write a short report for *Circulation*.

The Exeter Fund, looked after by BHS, also pays travel grants. These are specifically to help British hydrologists (living in the UK) to participate in the activities of IAHS and its related organisations in the UK and abroad.

Anyone wishing to apply for money from the Exeter Fund or a BHS travel grant should contact the Hon. Treasurer, **Terry Evans** at 107 Ely Road, Littleport, Ely, Cambridgeshire, CB6 1HJ *(Tel. 01353 862723, email TEEVANS100@AOL.com).*

Floods minister visits Wallingford

The CEH Institute of Hydrology site has a new frontage (see below), with new meeting rooms, plus a much larger library and enough new office space to at last remove the temporary buildings.

One of the first visitors was MAFF junior minister **Elliott Morley MP**, who visited both HR Wallingford and the Institute of Hydrology on *Wednesday 14th July* to hear at first hand about recent and ongoing research work commissioned by his department.





At HR Wallingford, presentations covered coastal and beach studies as well as the environmentally sensitive design of river channels. Topics at IH included flood forecasting, continuous simulation and climate change, the forthcoming *Flood Estimation Handbook* and flood plain mapping.

The picture shows the minister receiving a section of the IH flood risk map of part of the River Avon from IH Director **Jim Wallace**. In attendance are **Reg Purnell** from MAFF, the CEH Director **Mike Roberts**, Head of the IH Risks and Extremes Division **Duncan Reed** and other IH scientists who presented their work to Mr Morley.

Flood Estimation Handbook

A BHS National Meeting is being held on *3rd November* at the Institution of Civil Engineers to present the new *Flood Estimation Handbook* from the Institute of Hydrology, a major revision of UK flood design practice that will supersede the 1975 *Flood Studies Report*.

Details of this full-day meeting are being sent out separately with this issue. There will be no further announcement, so please return the form promptly if you intend to come.

Welcome to Lisa Stafford

We welcome **Lisa Stafford** as our new Secretary at the Institution of Civil Engineers, and thank **Helen Sismey** for holding the fort following **Richard Howard**'s departure in May.

FORTHCOMING EVENTS

30 years of SAHS

If you find yourself in South Australia in the autumn, you might like to know that the South Australian Hydrological Society is celebrating 30 years since its foundation.

One of the events being organised is a seminar and dinner, taking place in Adelaide during Water Week on *Thursday 21st October, 1999.*

The subject is "Living with Water", covering five themes: scarcity, security, supply, surplus and sustainability.

The organiser is Dr David Walker, Dept of Civil and Environmental Engineering, University of Adelaide, Adelaide 5005, Australia *(tel +61 8 8303 4319, fax +61 8 8303 4359, email dwalker@civeng. adelaide.edu.au).*

Meetings

First announcement & call for papers
IWFW 2000
INTERNATIONAL WORKSHOP ON DEVELOPMENT AND MANAGEMENT OF FLOODPLAINS AND WETLANDS
Beijing, China
5–8 September 2000

If you are looking for an alternative to the BHS Symposium in Newcastle, this could be it. Organised by the International Research and Training Center on Erosion and Sedimentation, and sponsored by IHP-V, this workshop (in English) will cover the interactions between river systems, floodplains and wetlands, their hydrology, ecology, socio-economics, management and protection.

Papers are invited: the deadline for abstracts (400 words), including some preliminary results and conclusions, is 30 November 1999.

Registration fees will be US$400-450, including proceedings and refreshments, but not the post-workshop tour including the Three Gorges.

All correspondence should be sent to Mr Jiang Chao, IWFW 2000, IRTCES, P.O. Box 366, Beijing 100044, China *(tel +86 10 68413372, fax +86 10 68413372, email irtces@public.east.cn.net).*

HISTORICAL HYDROLOGY OF INLAND WATERWAYS
One-day workshop at the Institute of Hydrology,
Saturday, 27 November 1999

The National River Flow Archive has an interest in locating and archiving historical records of river flows. Useful historical flow records may be contained in the archives of the builders and operators of canals and inland navigations. The history of the development of existing natural water sources (rivers, streams and springs) to supply inland waterways also needs to be explored.

To this end, **Frank Law** and **Henry Gunston** are organising a one-day workshop at the Institute of Hydrology, the aim of which is to build open discussion sessions around presentations by invited speakers.

Themes could include measurements taken during the planning of water supplies for new or modified navigations, and the ongoing assessment of water supplies while canals or river navigations were in operation.

The programme was still being planned as we went to press, but the Workshop will be held at the Institute's offices in Crowmarsh Gifford, near Wallingford. There will be no charge for participation, morning and afternoon refreshments will be provided free, and local pubs can provide lunches.

Further details can be obtained from Henry Gunston, Institute of Hydrology, Crowmarsh Gifford, Wallingford, Oxon, OX10 8BB *(Tel 01491 692452, Fax 01491 692424, e-mail: h.gunston@ioh.ac.uk)*

EGS 2000 — change of venue
25TH EGS GENERAL ASSEMBLY
Nice, France
25–29 April 2000

The date and place of next year's 25th General Assembly of the European Geophysical Society has been changed: it will now take place in Nice between *Tuesday 25th* and *Saturday 29th April.*

Further details are on the internet at http://www.copernicus.org/EGS/egsga/nice00/nice00.htm.

Papers are invited: abstracts are required by **15 December 1999**.

On behalf of the Society, I apologise for the late notice of this change and look forward to seeing you in Nice.

Arne Richter
Executive Secretary, EGS

ASIAN CONFERENCE ON UNSATURATED SOILS
Singapore
18-19 May 2000

Leading researchers and practitioners giving keynote lectures include Prof. G. E. Blight (South Africa), "Evapotranspiration: measuring a primary control over the behaviour of unsaturated soils", Prof. H. A. Faisal (Malaysia), "Unsaturated tropical residual soils and rainfall-induced slope failures in Malaysia", Prof. S. L. Houston (USA), "Soil aquifer treatment of waste effluent" and Prof. S. J. Wheeler (UK), "Degree of saturation: its role in constitutive modelling".

More details can be found on the conference web site at: http://www.ntu.edu.sg/home/cdtoll/unsat-asia/.

Abstracts (required by **15 September 1999**) and technical enquiries should be sent to Dr D.G. Toll, Nanyang Technological University, School of Civil & Structural Engineering, Blk N1, #1A-37, Nanyang Avenue, Singapore 639798 *(fax: +65 791 0676, email: cdtoll@ntu.edu.sg).*

Second announcement
WATER IN THE CELTIC WORLD: MANAGING RESOURCES FOR THE 21st CENTURY
Aberystwyth, Wales
3–7 July 2000

The Second Inter-Celtic colloquium on hydrology and the management of water resources will be held at the University of Wales, Aberystwyth, organised under the aegis of the IAHS with the support of the National IAHS Committees of the UK, France and Ireland, and the BHS.

Like the First Inter-Celtic Colloquium on Hydrology in Rennes in 1996, the conference will concentrate on research aimed at elucidating problems relating to the hydrology and water resources of Celtic lands. In order to balance the large number of responses we have had from potential participants in India, Pakistan, Turkey, Russia and Nigeria, we are keen to hear from Celts (or honorary Celts) working in the wetter regions of northwest Europe.

Papers are invited on:

- Public water supply – resources and demand;
- Water quality and aquatic ecosystems;
- Environmental processes, impacts and management;

- Environmental change – climatic change, climatic cycles and land-use development;
- Vulnerability and extreme events – floods, droughts and risk management;
- Social history of water use in Celtic lands.

The second circular will be available in August. Abstracts should be submitted by **15th October, 1999** and full papers by St David's Day, **1st March, 2000**.

The chair of the local organising committee is Dr Tony Jones, Institute of Geography and Earth Sciences, University of Wales, Aberystwyth SY23 3DB (*tel 01970 622595, fax 01970 622659, email jaj@aber.ac.uk*). For further details please contact **Kevin Gilman** *(Email Kevin.Gilman@wetlands.demon.co.uk).*

Diary

7th September 1999
BHS Pennines Hydrological Group
Field visit
Venue: Tophill Low water treatment works and nature reserve, near Hull
Time: 13.00 for 13.30
Contact: Jason Ball, Dept of Civil & Environ. Engineering, Yorkshire Water *(Tel 01274 804612, Fax 01274 804124, email jason_ball@yorkshirewater.plc.uk)*

22nd September 1999
BHS Annual General Meeting *(15.45)*
+ National meeting on "Water quality modelling", 10.00 – 16.30
Venue: Imperial College, London SW7
Contact: Dr Matthew Lees *(tel 0171 594 6019, fax 0171 594 6124, email m.lees@ic.ac.uk)*

6th October 1999
Scottish Hydrological Group meeting
"Stochastic modelling of point source pollution — River Lambro, Italy"
Venue: University of Stirling
Time: 18.00 for 18.30
Contact: Tim Jolley *(tel 01355 574213, fax 01355 574213688, email tim.jolley@sepa.org.uk)*

3rd November 1999
BHS National Meeting
"The Flood Estimation Handbook"
Venue: Telford Theatre, ICE, London
Contact: Prof. Howard Wheater *(tel 0171 594 6066, fax 0171 823 9401, email h.wheater@ic.ac.uk)*

10th November 1999
BHS Southern Section meeting
"Ecological modelling of rivers"
Venue: Imperial College, London
Time: 17.30 (tea at 17.00)
Contact: Dr Adrian Butler, Dept of Civil Engineering, Imperial College, London *(Tel 0171 594 6122, Fax 0171 594 6124, e-mail a.butler@ic.ac.uk)*

17th November 1999
BHS Pennines Hydrological Group
"Mine drainage"
Venue: Newcastle University
Time: 13.00 for 13.30
Contact: Owen Wedgwood *(Tel 01925 653999, Fax 01925 415961, email owen.wedgwood@environment-agency.gov.uk)*

25th November 1999
Scottish Hydrological Group meeting
"Flood warning in the Clyde estuary"
Venue: Strathclyde University
Time: 18.00 for 18.30
Contact: Tim Jolley *(see above)*

27th November 1999
National River Flow Archive workshop
"Historical hydrology of inland waterways"
Venue: Institute of Hydrology
Contact: Henry Gunston *(see Meetings)*

15th December 1999
IAHR meeting (co-sponsored by BHS)
"Hydro-informatics"
Venue: University of Bristol
Time: 11.00 for 11.30
Contact: John Davies *(tel 0117 928 7712, fax 0117 928 7785, email john.davies@bristol.ac.uk)*

12th January 2000
Scottish Hydrological Group meeting
Postgraduate research presentations
Venue: Strathclyde University
Time: 14.00
Contact: Tim Jolley *(see above)*

19th January 2000
BHS Southern Section meeting
"Hydrological applications of remote sensing"
Venue: Imperial College, London
Time: 17.30 (tea at 17.00)
Contact: Dr Adrian Butler *(see above)*

9th February 2000
BHS Pennines Hydrological Group
"The Bye/Horner Report"
Speakers: Rod Furnell (EA Hydrometric Manager, NW Region), Ian Crozier (Senior Engineer implementing the Bye/Horner Report) and David Rooke (Regional Water Manager, NE Region)
Venue: Lancaster University
Time: 13.00 for 13.30
Contact: Owen Wedgwood *(see above)*

17th February 2000
Scottish Hydrological Group meeting
"NE Scotland water resource study and yield assessment framework"
Venue: Edinburgh University
Time: 18.00 for 18.30
Contact: Tim Jolley *(see above)*

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15th March 2000
BHS Southern Section meeting
"Water resource planning for south-east England"
Venue: Reading
Contact: Dr Adrian Butler *(see above)*

22nd–23rd March 2000
Scottish Hydrological Group Conference
"Hydrology in Scotland 2000"
Venue: University of Dundee
Contact: Dr Andrew Black *(tel 01382 344433, fax 01382 344434, email a.z.black@dundee.ac.uk, http://www.dundee.ac.uk/geography/hydrolinscot)*

25th–29th April 2000 (change of venue)
25th EGS General Assembly
Venue: Nice, France
Details: http://www.copernicus.org/EGS/egsga/nice00/nice00.htm

3rd May 2000
BHS Southern Section meeting
"Risk management in hydrological protection"
Time: 17.30 (tea at 17.00)
Contact: Dr Adrian Butler *(see above)*

17th May 2000
BHS National Meeting
"Catchment management and process studies"
Venue: Manchester University
Contact: Dr Mark Robinson *(tel 01491 692322, fax 01491 692322, email m.robinson@mail.nwl.ac.uk)*

17th May 2000 (during National Meeting)
BHS Pennines Hydrological Group AGM
Contact: Owen Wedgwood *(see above)*

3rd–7th July 2000
IAHS/BHS 2nd Inter-Celtic Colloquium
"Water in the Celtic world: managing resources for the 21st Century"
Venue: University of Wales, Aberystwyth
Contact: Dr J.A.A. Jones, *(tel 01970 622595, fax 01970 622659, email jaj@aber.ac.uk)*

4th–5th September 2000
Tenth BHS Postgraduate Symposium
Venue: Newcastle University
Contact: John W Gowing, CLUWRR, Porter Building, St Thomas Street, Newcastle upon Tyne, NE1 7RU *(tel 0191 222 8488, fax 0191 222 6563, email: J.W.Gowing@ncl.ac.uk)*

6th–8th September 2000
7th National Hydrology Symposium
Venue: Newcastle University
Contact: Prof. Ian Calder, Hydrology Symposium Office, Centre for Land Use and Water Resources Research, Porter Building, St Thomas Street, Newcastle upon Tyne NE1 7RU *(tel/fax 0191 222 6563, email cluwrr@ncl.ac.uk)*