

## **NEWS AND INFORMATION**

## **International Association of Hydrogeologists**

The international groundwater organisation

Since 1956 a world-wide forum on the management of groundwater for the benefit of mankind and the environment

# **Groundwater at the World Water Forum**

The 3rd World Water Forum was held in Japan from 16 to 23 March, 2003. Political and press reception has been mixed. However, headlines like "Governments plunge backwards at World Water Forum" and "World Water Forum ends in failure" certainly judge the event too harshly.

There were a few problems. Over 12,000 delegates were spread across many venues and, even with the benefit of the excellent Shinkansen (bullet train), too much time was spent in travelling and contacts were hard to make. The issue of private investment in water attracted the greatest political attention. There was much criticism from both governments and NGO's that there was too much emphasis on large-scale projects and insufficient emphasis on appropriate standards and technology and on protecting the environment. The draft Forum statement was also criticised for not addressing the implications of climate change. Information and links can be found at www.iah.org/Kyoto.htm

Happily we can report much success for the Groundwater Theme sessions at the Forum held on 18 and 19 March in Osaka. IAH has been working with UN agencies and other partners for the past year to ensure that groundwater issues were high profile at the Forum. Our sessions were well received and very well attended.



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To join IAH please visit the web site and either join on-line or download the membership application form



IAH Vice Presidents Ken Howard and Christine Colvin who led the IAH/UN Agencies presentation at the World Water Forum

Breaking the Saki barrel after the closing plenary (from left) Karin Kemper (World Bank). Andrew Skinner (IAH), Alice Aureli (UNESCO), Stephen Foster (WB-GWMATE)



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The session got off to the best of all possible starts with a supportive and challenging speech by Ronnie Kasrils, Minister for Water Affairs and Forestry for South Africa. He made clear his conviction about the greater role that groundwater development could play in meeting the water supply and environmental challenges in southern Africa. But he challenged what he called the "groundwater fraternity" to make its voice better heard.



Minister Ronnie Kasrils of South Africa at the Groundwater Theme opening ceremony.

The Minister's key messages were:

- Groundwater is 'blue gold' a natural resource from the earth - of vital economic and social importance;
- We need more information and understanding if we are to manage this resource properly;
- It needs to be protected because it is an asset which, once contaminated, is very hard to restore to its natural quality;
- Groundwater provides a strategic reserve which offers irreplaceable security at times of drought and natural disaster;
- Groundwater needs to take its rightful place in the integrated management of catchments catchments need to be managed in three dimensions, taking full account of the underground flow and storage. This is especially important in the context of transboundary water resource management;
- Problems of quality and resource management where they exist need to be understood and managed. This may present challenges to traditional management approaches;
- Groundwater specialists need to be able to communicate their messages to decision makers and the public.

Ian Johnson, Vice President of the World Bank, and Abdin Salih, Regional Director for UNESCO, supported Minister Kasrils in the opening speeches.

The subsequent sessions were conducted by the World Bank Groundwater Management Advisory Team (led by Stephen Foster, also an IAH Vice-President, and Karin Kemper) and by an IAH/UN Agencies consortium lead by IAH Vice Presidents Christine Colvin and Ken Howard.

The World Bank session emphasised, by means of case histories, the strategies that have been successfully engaged to improve groundwater management and effective groundwater use. The IAH/UN Agencies emphasised the role of science and information to underpin the development and management of groundwater.

The Groundwater Theme sessions were put together in conjunction with Japanese colleagues, coordinated through the Japanese Association of Environmental Hydrogeologists - IAH National Chapter for Japan. This was led by Chieko Ishibashi (top), Hiromichi



Ishibashi (centre), and Yasuo Sakura (bottom). They also coordinated two sessions during day two on Understanding for the Next Generation - Caring for Groundwater, in which Japanese groundwater specialists and groups of school students both presented on work on groundwater and environment in Japan, for debate with international visitors to the Forum. The audience that packed the auditorium on the top floor of the Osaka Grand Cube were especially impressed by the quality of the presentations of the Japanese school students, who demonstrated a clear understanding of the special role of groundwater in preserving environmental systems.



The Groundwater Theme also included parallel sessions, the most significant of which, in terms of attendance, was organised by the Marcellino Botin Foundation of Spain, which dealt with the management of intensive groundwater use and followed on from the SINEX meeting held in Valencia in December 2002.

All sessions reported back at the closing plenary. This was addressed by both Minister Kadiam Srihari (Minister of Irrigation for the state of Andrha Pradesh, India) and by Ger Ardon, Director for Water at the Dutch Ministry of Housing, Spatial Planning and the Environment. The messages from the Groundwater Theme were presented at the Inter-Ministerial Conference by IAH Vice President Stephen Foster.

The two days of groundwater debate, which were enlivened by Japanese cultural themes, music and dancing in the opening ceremony and a traditional breaking of the saki barrel at the closing, received much favourable comment.

The issues and opportunities for groundwater were much in evidence throughout the whole Forum. This began in the opening ceremony when the Netherlands Prince of Orange Willem Alexander, in one of the opening addresses, put strong emphasis on groundwater as a management challenge and a development opportunity. In addition to the Groundwater Theme, there were well-attended sessions focussing specifically on groundwater at the Asian and MENA (Middle East and North Africa) theme days.

On 22 March the official launch of the UNESCO and WMO sponsored International Groundwater Resource Assessment Centre (IGRAC), to be funded and hosted by the Dutch Government, at the TNO Institute, was held. IAH has been a strong supporter of IGRAC and Jac Van der Gun of TNO made a contribution on IGRAC in the IAH/UN Agencies session (see also page 8).

IAH members attending the Forum gave invited lectures in two sessions in Kyoto and Tokyo and a joint meeting was held with representatives of Japanese Geoscience societies to discuss future cooperation with IAH.

Press coverage of groundwater focussed on transboundary issues, notably a Washington Post article, syndicated to the Japan Times among other papers, which quoted Shammy Puri (IAH) and Alice Aureli (UNESCO)



Washington Post article 10 March 2003

It is still too early to judge what the impact will be of the Forum's outputs. However, there is no doubt that the world water community is gaining a better understanding of the vital and distinctive nature of groundwater issues. A future need is to focus on the information needs and management challenges of ensuring adequate representation of groundwater in integrated basin management strategies.



Scenes from the Groundwater Theme sessions



Alice Aureli (UNESCO) giving a TV interview at the Groundwater Theme session



Students from Miyaku High School, Okinawa who were prizewinners at the "Caring for Groundwater" session.

## Change of faces at the IAH office

Many IAH members will already know that Janet Goldson, who has been the IAH membership administrator since 1997, left the Association at the end of March 2003. Janet (pictured below) has looked after the membership and national committee affairs of the Association admirably and her patient, but when necessary firm, dealings with our members around the world have done a lot to give a secure foundation for the business affairs of the Association and help us increase our membership.



When Janet first joined IAH she was part-time and our only employee. Christine Watson has since joined her and together they have been responsible for overseeina expansion IAH activities into areas such as on-line membership and journal administration.

The downside for Janet is that it has grown into a full time job and is getting in the way of reducing her golf handicap.

With Janet's departure we will be reorganising slightly the way the IAH International Office will work. Christine is now taking overall responsibility for the office and we have recruited a new membership assistant to work with her and take over the



membership and national committee administration from Janet.

Diane Wilcock (left), who joined IAH on 25 February, is a graduate in American Studies and History and has a keen interest computer systems and their application. In

particular Diane enjoys developing her computeraided design skills and surfing the internet for research purposes. She has experience of working in a customer service environment and is looking forward to continuing the tradition that Janet has established of providing a friendly and efficient service to all our members. You can contact Diane on dwilcock@iah.org

#### Late news

IAH congratulates Professor Yasuo Sakura of Chiba University who has been elected President of the Japanese Association of Groundwater Hydrology (JAGH) for a two-year term. Yasuo is already President of the Japanese National Chapter of IAH and a senior figure in the Japanese Association of Environmental Hydrogeologists, so we look forward as a result of Yasuo's term as President of JAGH for an even closer collaboration between the Associations, building on the successful cooperation achieved in the planning for the World Water Forum.

## Water and Climate

The Dialogue on Water and Climate has published a report "Climate changes the water rules - How water managers can cope with today's climate variability and tomorrow's climate change". The report is available from the web site www.waterandclimate.org

Also accessible from this site is a new searchable Climate and Water Bibliography. This was created specifically for the Dialogue on Water and Climate and is administered by the Pacific Institute. The Bibliography includes over 3000 entries. The lead person for IAH in the Dialogue on Water and Climate

Albert Tuinhof The Netherlands (a.tuinhof@acaciainsitute.nl).

In parallel with this activity Nico Goldscheider from Switzerland (nico.goldscheider@unine.ch) has proposed to IAH that it should establish a Commission on Hydrogeology and Climate Change and he is currently putting together a proposal to be considered by the IAH Council later this year. Members of IAH who are interested in or are working on this topic and would be willing to collaborate in this project are invited to contact him.

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## International Year of Fresh Water

2003 has been declared the International Year of Freshwater. The aim of the year is to raise awareness of the importance of protecting and managing freshwater.

The UN General Assembly resolution proclaiming the Year was initiated by the Government of Tajikistan and supported by 148 other countries. In a message issued at the ceremony, UNESCO Director-General Koïchiro Matsuura said that "water can be an agent of peace, rather than conflicts, and UNESCO is looking at ways that will allow this century to be one of 'water peace' rather than 'water wars'. By developing principles and methods to manage this resource efficiently and ethically, while respecting related ecosystems, we move a step closer to the goal of sustainable development".

One of the main events of the International Year of Freshwater (IYFW) was the 3rd World Water Forum, which took place in Kyoto (Japan), from 16-23 March. The Forum was timed to coincide with World Water Day, held on 22 March each year.

At the Kyoto meeting, the World Water Assessment Programme (WWAP), a collaboration between 23 UN agencies involved in freshwater and hosted by UNESCO, presented its World Water Development Report, subtitled "Water for People, Water for Life". The executive summary of this report can be found in 7 languages (Arabic, English, French, German, Japanese, Russian, and Spanish) at:

http://www.unesco.org/water/wwap/wwdr/ex\_summary/ Versions in Chinese and Bahasa-Malay are still in preparation.

This is the first of a planned series of reports planned on the state of water stress in the world, due to be published every three years. The report identifies critical issues and problems as illustrated by in-depth case studies of selected, representative river basins.

One of the aims of the Year is to reassert the UN's Millennium Declaration Goal on Water, which pledged "to halve, by the year 2015, the proportion of the world's people unable to reach, or to afford, safe drinking water" and "to stop the unsustainable exploitation of water resources."

The goal, endorsed by the World Summit on Sustainable Development held in Johannesburg (South Africa) in August last year, also set a new target of halving by 2015 the proportion of people who do not have access to basic sanitation. It also

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recognized the key role of water in agriculture, energy, health, biodiversity and ecosystems as well as in combating poverty.

#### SPLASH!

Every few weeks throughout this special year, SPLASH! will bring you news and information related to the International Year of Freshwater. This newsletter is also available in French and Spanish. If you would prefer to receive it in one of these languages, or would like to subscribe to the English version, you can do so by visiting: wateryear2003@unesco.org

#### Millennium Goals

The United Nations Millennium Goals are a framework of 8 goals, 18 targets and 48 indicators to measure progress towards the Millennium Development Goals. To read more about the Millennium Goals please visit: http://www.un.org/millenniumgoals/

#### **World Water Development Report**

The World Water Development Report (WWDR) is intended as a periodic, comprehensive review giving an authoritative picture of the state of the world's freshwater resources, and aiming to provide decision-makers with the tools for sustainable use of our water.

The first edition of this report, Water for People, Water for Life, was launched on World Water Day (22 March) at the Third World Water Forum in Kyoto, Japan.

Details of the report can be found at <a href="http://www.unesco.org/water/wwap/wwdr">http://www.unesco.org/water/wwap/wwdr</a> and at <a href="http://upo.unesco.org/bookdetails.asp?id=4042">http://upo.unesco.org/bookdetails.asp?id=4042</a>. Order the report from: <a href="https://www.berghahnbooks.com">www.berghahnbooks.com</a>

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# **EU Water Framework Directive** groundwater aspects

At both the IAH XXXII Congress and Council (October 2002) and the IAH Executive Meeting (December 2002) discussions were held on how best IAH, as the internationally-recognised competent professional association dealing with groundwater issues, should more actively support the 'groundwater dimensions' of EC-WPFD implementation.

IAH has many national groups and a large membership in EU countries (around 1,500). Whilst numerous individual members are already involved with EC 'Framework Directive' and 'Groundwater Daughter Directive' development and implementation issues as part of their daily professional work, it was decided - on grounds of relative effectiveness and available resources - that it would not be appropriate for IAH to attempt to become involved 'across-the-board' on the groundwater dimensions of the directives

It was considered that it would be better, from the view-point of both IAH support to the EC Environment Directorate and service to IAH members themselves, for IAH to concentrate on three actions where it has either a clearly-defined obligation and/or the 'competitive edge':

Development, probably via workshops, of an approach for structuring implementation of various groundwater provisions according to hydrogeological settings (e.g. Quaternary glacial cover over deep aquifers, karst limestone terrains, major alluvial plains) - in the belief that much counterproductive discussion on directive implementation, and variability of interpretation, originates through lack of appreciation of hydrogeological diversity (deep-shallow aquifer and surface-groundwater relations, aquifer pollution vulnerability, etc).

- Production of an IAH booklet (with external sponsors still to be defined) including two separate sections:
  - a concise, but annotated, summary of the groundwater dimensions of the EC-WPFD for practising groundwater professionals;
  - a discussion on the issue of hydrogeological diversity and its effects on implementation of the directives.
- Promotion of more activity by IAH National Groups to propagate and discuss the various groundwater facets of the Framework Directive, such as those of the Spanish Group (Zaragoza -November 2002) and the UK Group (Birmingham - April 2003).

A small network of IAH Western European National Groups and EU 2005 Candidate Country representatives has been formed to promote such actions. At present they comprise:

- Xavier Sanchez-Vila, Spain (xavier.sanchez-vila@upc.es)
- Catherine Coxon, Ireland (cecoxon@tcd.ie)
- Matthias Eiswirth, Germany (matthias.eiswirth@bio-geo.uni-karlsruhe.de)
- Jacobus de Vries, Netherlands (vrij@geo.vu.nl)
- Paul Ashley, UK (RPA@mm-camb.mottmac.com)
- Bernardas Paukstys, Lithuania (bernadas @iti.lt)
- Stephen Foster, IAH Vice President (W. Europe) (iahfoster@aol.com)
- Dr Wilhelm Struckmeier, IAH Executive/Treasurer (w.struckmeier@bgr.de)

#### **Background to the EU Water Framework Directive**



The Water Framework Directive, adopted in Europe in 2000 and due for implementation over the next 15 years, is an ambitious programme of reviewing water management objectives at the river basin scale across the whole of Europe, including the accession states. The directive will set targets for ecological, chemical and quantitative status for all waters and will be supported by a new "daughter" directive covering groundwater. This daughter directive is still under active

negotiation and is yet to be agreed. The Water Framework Directive also underpins the European Union's Water Initiative "Water for Life" launched at the World Summit on Sustainable Development in Johannesburg in September 2002 in support of the UN Millennium Goals.

For more details of the Water Framework Directive see <a href="http://europa.eu.int/comm/environment/water/water-framework/overview.html">http://europa.eu.int/comm/environment/water-framework/overview.html</a> and for the EU Water for Life Initiative see <a href="http://europa.eu.int/comm/research/water-initiative/index\_en.html">http://europa.eu.int/comm/research/water-initiative/index\_en.html</a>

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### **IAH News**

#### Colombia

We reported in the last issue of News and Information that the newly formed Asociación Colombiana de Hidrogeólogos was now recognised as the National Chapter of IAH in Colombia. The President of ACH is Alberto Lobo-Guerrero (abl\_g@hotmail.com) and the Secretary is Elsa García (elsagarcias@yahoo.com). Our picture below shows a group of Colombian hydrogeologists at the inaugural meeting of the Association held on 27 June 2002. The Association has an active programme including organizing a groundwater symposium during the Colombian Geological Congress to be held from 30 July to 1 August this year in Medellín, Colombia:

(http://www.congresocolombianodegeologia.org).



Picture taken on 27 June 2003 during the founding of the NC o Colombia

#### International Union of Geological Sciences

IAH is an affiliated association of the International Union of Geological Sciences (IUGS). The IUGS, as part of its strategic action plan, has conceived a proposal for an International Year(s) of Planet Earth to run from 2004 to 2007. It is intended that the event will run from the International Geological Congress to be held in Florence in August 2004 (www.32igc.org) up to 2007, which is the 50th Anniversary of the International Geophysical Year on which the event is modelled. Further details can be found on the IUGS web site (www.iugs.org). IAH, which celebrates its own 50th anniversary during this period (2006), will be discussing how it can contribute to the proposed international year.

#### Belgium

The Belgian Committee for Hydrogeology (CBH-BCH) that has been in formation since 2001 is now fully active. At its Annual Meeting held on 6 December in

Brussels it adopted rules that enable it to be formally recognised as the IAH National Chapter for Belgium. The co-Presidents of the Committee are Jean-Paul Biron (jean-paul.biron@swde.be) and Kristine Walraevens (Kristine.Walraevens@rug.ac.be) The secretary is Alain Rorive (alain.rorive@fmps.ac.be). The IAH contacts on the CBH-BCH committee are Alain Dassargues (Alain.Dassargues@ulg.ac.be) and Okke Batelaan (batelaan@vub.ac.be).

#### China

The newly elected National Committee of IAH for China (IAH-CNC) met on 14-15 November 2002 and are pictured below.



Seated from left to right are: Sun Yongming, Senior Hydrogeologist; Han Zaisheng, Secretary of IAH-CNC; Prof. Fei Jin, Past President; Huang Zhixing, President IAH-CNC; Zhang Hongren, China National People's Congress; Shen Zhaoli, Beijing University of Geosciences; Mrs. Jiao Shuqin, Senior Hydrogeologist; Tao Qingfa, Ministry of Land and Resources of China; Wang Yanjun, China Geological Society

#### C V Theis award

IAH member Lorne G Everett was awarded the C V Theis award of the American Institute of Hydrology at a meeting on 15 October 2002. Patrick Leahy, USGS Chief Geologist and Past President of the IAH US National Chapter presented the award.

#### **Hydrogeology Journal**

Papers in Hydrogeology Journal are available on-line in advance of printing and distribution of HJ. Publishers Springer operate "Online First" in which articles can be published in electronic form weeks before distribution of the printed journal - even before the issue and page numbers have been assigned. "Online First" articles are published within the SpringerLink service soon after they have been approved for publication. The formal publication date of the article is the on-line publication date, which is

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indicated in SpringerLink as well as in the printed article.

To receive notification of an on-line publication you need to subscribe to the SpringerLink Alert service (http://link.springer.de/link/service/journals/10040/ind ex.htm). This service is available to all and gives access to the abstract of the paper. As an IAH member you can access the full paper on-line but you have to register separately with the SpringerLink service. Currently this is done through the same Springer web site but we are in the process of planning to transfer this registration to the IAH member only pages on the IAH web site to simplify the use of passwords.

As a result of the popularity of the Hydrogeology Journal theme issues we are now offering these for sale as individual publications. This service will begin with issues 10:1 (February 2002) and 11:1 (March 2003) - see panel below.

## Hydrogeology Journal Theme issues now available

Every year Hydrogeology Journal leads off with a theme issue. These popular issues are now available for individual sale to members, non members and libraries.

Each issue is priced at Euro 25 (US\$27 at current exchange rates) including postage.

Please order through the IAH office iah@iah.org



Each issue contains over 200 pages of peer reviewed articles and provides a valuable overview of currentperspectives on the topic.

#### Groundwater Recharge

Editors - Bridget R Scanlon (USA) and Peter G Cook (Australia) 2002:

Hydromechanics in Geology and Geotechnics Editor - Ove Stephansson (Sweden). 2003

#### **New publications**

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A new World Bank publication by the Groundwater Management Advisory Team (GW-MATE) entitled Groundwater Quality Protection - a guide for water utilities, municipalities and environment agencies. The publication is in two sections, an executive overview for senior personnel and a technical guide. It is available from World Bank publications www.worldbank.org as a 3Mb PDF file for \$15 or as a softback publication for \$30.

Palaeowaters in Coastal Europe: evolution of groundwater since the late Pleistocene is the summary of the work carried out as part of the EU PALAEAUX project. It addresses the history of groundwater evolution during the late Pleistocene in the coastal areas of Europe from the Baltic region to the Iberian Peninsula and the Canary Islands. Geochemical and geophysical techniques for evaluating palaeowaters are reviewed. The volume is published by the Geological Society and may be ordered from their online bookshop. SP189 price £70.00. http://bookshop.geolsoc.org.uk

#### 2002 issue of Hidrología Subterránea published



Every year since 1998 IAH has joined with UNESCO and IGME Spain (The Spanish Geological Survey) to publish an annual journal in both Spanish and Portuguese on groundwater. The 2002 issue is now available; copies are distributed by UNESCO Montevideo and by ITME, Madrid. For further details

please contact the IGME publications service: Fax: +34 91 349 57 62.

## International Groundwater Resource Assessment Centre

IAH has given strong support to the proposal for an international centre to collate groundwater information made by UNESCO and WMO in 1999, but the initiative has been slow to develop. However, early in 2003 the project began to move forward. It was announced at the Groundwater Theme session of the World Water Forum and at a special reception hosted by the Dutch Government that financial support is now assured to begin work immediately. The centre will be hosted by the Netherlands Institute of Applied Geoscience TNO at Utrecht and will operate under the auspices of UNESCO and WMO. A web site is being established at www.igrac.nl but in the meantime further information can be obtained from info @igrac.nl

#### Statement from the Mar del Plata Congress

The resolution adopted by those attending the XXXII International Congress of IAH and the VI Congress of ALHSUD (Latin American Association of Groundwater Hydrology for Development) in Mar del Plata, Argentina, 20-25 October, 2002 is now posted, in English and Spanish on the IAH news page www.iah.org/IAH\_news.htm .

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## IAH meetings

Two meetings with IAH input took place in December, 2002 as a prelude to the World Water Forum.

The **SINEX** meeting in Valencia, Spain highlighted issues of intensive groundwater use. The SINEX conference adopted a declaration at its final plenary session, which can also be found, in English, at www.iah.org/IAH\_news.htm

An IAH publication on the outputs of the SINEX meeting is in preparation.

The IAH Netherlands National Committee with support of WWC, IWMI and World Bank/GW-MATE organised a Seminar/Dialogue on Aquifer Storage, Recharge Enhancement and Climate in December 2002. It will led to a booklet for submission in Kyoto.

### Announcement of future meetings

#### Join the IAH International meetings in Central Europe in 2003

IAH is promoting two consecutive conferences in Central Europe in September 2003.

Prague and Bled are less than 400 kilometres apart.

Discount registration is offered if you attend both meetings.

September 15 - 19 Prague, Czech Republic

#### **GROUNDWATER IN FRACTURED ROCKS**

Organised by the IAH Commission Hard Rock Hydrogeology, IAH Czech National Committee and Charles University.

http://www.natur.cuni.cz/gwfr2003

September 22 - 26 Bled, Slovenia

#### **GROUNDWATER IN GEOLOGICAL ENGINEERING**

Organised by the Slovene Committee of IAH with participation of Croatian National Group of IAH, IAH Yugoslav National Chapter, Slovene Committee of IAEG and the Slovene National Group of ISRM

http://www.pivo-union.si/ICGGE-2003/

#### XXXIII Congress of IAH and VII Congress of ALHSUD

11 - 15 October, 2004

As in 2002, IAH and ALHSUD will celebrate their next Congresses together in 2004 where the venue will be Zacatecas City, Mexico. The theme of the congress is:

## GROUNDWATER FLOW UNDERSTANDING: FROM LOCAL TO REGIONAL SCALE

Zacatecas City is situated in the centre of Mexico with a city centre which is UNESCO designated. It has excellent communication by air with direct flights from US hubs as well as other major cities in Mexico.

Details can be found at http://www.igeograf.unam.mx/aih or by contacting the congress secretariat on aih@igiris.igeograf.unam.mx or Fax: +52 55 5616 2145

Abstracts are invited by 15 September 2003.

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1 May 2003

#### **NOTICE OF MEETING**

To: Members of the International Association of Hydrogeologists

#### **ANNUAL GENERAL MEETING**

An Annual General Meeting of the International Association of Hydrogeologists will be held on Tuesday, 23 September 2003 at 1800 hours in the Hotel Golf, Bled, Slovenia.

All members of the Association who have fully paid their subscription for the current year are entitled to attend and participate in the proceedings. Guests are welcome.

#### **AGENDA**

- 1 Welcome by the President: Professor Emilio Custodio, President of the International Association of Hydrogeologists, will open the meeting.
- 2 Apologies for absence.
- 3 Minutes of the first Annual General Meeting held on 24 October 2002 published on the IAH web site (www.iah.org/archive).
- 4 To receive the report and accounts for the period ended 31 December 2002.
- 5 To appoint the independent examiner of the Association's accounts for the next accounting period and to authorise the Council to determine the remuneration.
- 6 Presentation of the IAH President's Award 2003.
- 7 Election of Honorary Members of the Association.
- 8 Questions and comments from members, including information and invitations to forthcoming events.

The Annual Report of the Association will be distributed with the August issue of News and Information and will be posted on the IAH web site not later than 1 August 2003.

A C Skinner on behalf of IAH Council

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## **ENVIRONMENTAL** SOFTWARE & SOLUTIONS



## and Software

Groundwater Software for modelling, data analysis & presentation



-22.5

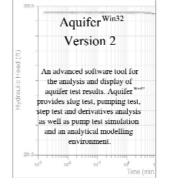
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## **Conference Listing**

Summary details of conferences with e-mail or web addresses are given below. For a fuller list of conferences and more details, including links to web sites visit www.iah.org/confs/

May 11-14, Montpellier, France. The third symposium "Climate Change: the Karst Record". Web: http://www.ipsl.jussieu.fr/GLACIO/KARST/Main-KRIII.html

May 19-23 Vienna, Austria. International Symposium on Isotope Hydrology and Integrated Water Resources Management, Web:

http://www.iaea.org/worldatom/meetings/2003/infcn104.shtml

May 28-30, Salamanca, Mexico 1st International Workshop on Aquifer Vulnerability and Risk. Instituto de Hidrología de Llanuras. Web: http://www.igeofcu.unam.mx/avr03

June 2-5, Orlando, Florida, U.S.A. 7th International Symposium on in Situ and on site Bio-remediation. Web: www.battelle.org/biosymp

June 9-10, Edmonton, Alberta. 3rd Canadian Conference on Geotechnique and Natural Hazards.

Web: www.geohazards2003.eba.ca

June 16-20, Ottawa, Ontario, Canada. Contaminated and Hazardous Waste Site Management - Theory, Practice and Outdoor Field Demonstrations Course.

Web: http://www.contaminatedsite.com

June 23-26, Faro, Portugal. Jornadas Hispano-lusas sobre Las Aguas Subterráneas en el sur de la Península Ibérica. Organiza: AIH-GE; AIH-GP, APRH. E-mail: aprh@aprh.pt

June 29-July 2, New York City, USA. Watershed Management for Water Supply Systems. Web: http://www.awra.org/meetings/NewYork2003/index2.html

July 1-4, Amman, Jordan. 2nd International Conference on Wadi Hydrology. E-mail: Dr. Muhammad Shatanawi at: shatanaw@ju.edu.jo or Dr. Radwan Al-Weshah at r.weshah@unesco.org

July 2-12, East Siberia, Russia. Symposium on the IGCP 448 Project "World Correlation on Karst Geology and Its Relevant Ecosystem". E-mail: kozireva@earth.crust.irk.ru;

7-9 July, Langkawi Island, Malaysia. ICUDM International Convention on Urban Development and Management. E-mail: ismail@fksg.utm.my

July 30-August 1, Medellin, Colombia. V Simposio Colombiano de Hidrogeologia organised by the Asociacion Colombiana de Hidrogeologos. Web:

http://www.congresocolombianodegeologia.org

August 17-22, Dublin, Ireland. 7th International Conference Diffuse Pollution & Basin Management.

Web: www.ucd.ie/~dipcon/dipcon.htm

August 20-23, Tampere, Finland Dry Toilet 2003. Web: www.drytoilet.org

September 6-10, Hilton Huntsville, Huntsville, Alabama, USA. Sinkholes and the Engineering and Environmental Impacts of Karst.

Web: http://www.asce.org/conferences/karst2003/index.cfm September 9-13, Hannover GeoCenter, Germany.

Geosciences and the European Water Framework Directive.

Web: http://www.bgr.de/veransta/maegs13

September 15-19, Prague, Czech Republic. Conference on Groundwater in Fractured Rocks.

Web: http://www.natur.cuni.cz/gwfr2003

September 16, Montpellier, France. FAO/ICID International Workshop on Capacity Building in Irrigation and Drainage; Issues, Challenges and the Way Ahead.

E-mail: watermanagement@fao.org

September 22-26, Bled, Slovenia. 1st International Conference on Groundwater in Geological Engineering. Web: http://www.drustvo-skiah.si or http://www.pivounion.si/ICGGE-2003/

September 23-26, Rosario, Argentina. III Congreso Argentino de Hidrogeologia y I Seminario Hispano-LatinoAmericano sobre Temas actuales de la hidrologia subterranea.Web: http://www.fceia.unr.edu.ar/curiham

September 28-October 1, Winnipeg, Manitoba, Canada. 4th IAH-Canadian National Chapter/Canadian Geotechnical Society Joint Conference.

Web: http://home.cc.umanitoba.ca/~cgsman/cgs2003/

September 30-October 3 Venice, Italy. International Conference on Remediation of Contaminated Sediments. Web: www.battelle.org/sedimentscon

October 5-9, Madrid, Spain. The XIth World Congress on Water Resources - Water Resources Management in the 21st Century. Web: www.cedex.es/wracongress2003/

May 31 - June 3, Cartagena (Murcia), Spain. 18th Salt Water Intrusion Meeting.E-mail: mercedes.escudero@dep.upct.es

June 02-07, Orleans, France, 20th Colloquium of African Geology. Geoscientific Infrastructure in Africa for Sustainable Development. Web: http://cag20.brgm.fr

June 16-19 Sosnowiec, Poland. International conference on groundwater vulnerability assessment and mapping. Web: http://khgi.wnoz.us.edu.pl/vulnerability.htm

August 20-28, Florence, Italy. 32nd International Geological Congress.Web: www.32igc.org Contact for hydrogeology sessions barrocu@crs4.it

October 11-15, Zacatecas, Mexico. XXXIII Congress of IAH - Conference on Groundwater Flow Understanding: From Local to Regional Scale. Web: www.igeograf.unam.mx/aih

#### 2005

June. Berlin, Germany. ISAR5 - 5th International Symposium on Management of Aquifer Recharge. E-mail: stephanie.rinck-pfeiffer@kompetenz-wasser.de

September. Belgrade, Yugoslavia. International Conference on Environmental (Geoecological) Problems in Karst. E-mail: iemcov@ptt.vu

October, Barcelona, Spain. IAH Conference "From data gathering and groundwater modelling to integrated management" E-mail: gerencia@fcihs.org

**NEWS AND INFORMATION** 

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