

Furthering the understanding, wise use and protection of groundwater resources throughout the world

DECEMBER 2011

GW-MATE: OUTCOMES FROM A DECADE OF EFFORT

ALSO IN THIS ISSUE

MEDIA FOCUS.....5

PRESIDENT'S PAGE.....6

CHAPTER NEWS.....18

CONGRESS LATEST22

LISTINGS, COPY AND ADVERTISING.....23

From 2001 to 2010 GW-MATE, the Groundwater Management Advisory Team (a multi-disciplinary expert group), supported by a consortium of EC governments, was engaged with World Bank clients in more than 20 countries worldwide to promote institutional strengthening for groundwater resources and to mobilise practical project-level investments in their management and protection at local scale.

and he has kindly provided us with a summary of outcomes.

The work of GW-MATE and the technical documentation that has come from the programme have certainly raised the profile of groundwater within the World Bank and its client governments. Many IAH members find the GW-MATE publications useful in their own work, and you are urged to look at the website quoted in Stephen's article.

Stephen Foster, IAH's Past President was amongst the group of experts

Full report, page 12

IAH DEVELOPMENTS AND CALLS TO ACTION

IAH news (pages 2-4), commissions update (page 11) and election announcement (page 24)

EARLY CAREER HYDROGEOLOGISTS BEAT THE DRUMS IN PRETORIA

Conference reports from South Africa (pages 8-10) and USA (pages 14-15)



INTERNATIONAL ASSOCIATION OF HYDROGEOLOGISTS

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<http://www.iah.org>

Contact us: email info@iah.org with your news, views or questions

COUNCIL MEETING REPORT

Some key points are outlined below, as discussed and agreed at Council's one-day meeting in Pretoria

Members will have received with their September copy of Hydrogeology Journal a note outlining a programme of activities to be undertaken in implementing IAH's Forward Look. Led by Shammy Puri, Council had a long and wide-ranging discussion of priorities within the five themes of this programme. Opportunities for promoting groundwater and IAH at forthcoming global events were identified, and for some the involvement of National Chapters in the host countries was recommended. It was agreed that collaboration with other organisations and professional associations could, if well targeted, enhance our efforts to promote better understanding of groundwater.

The new IAH Commission on Groundwater Outreach to Decision Makers was represented at Council by Andrew Stone, and it was agreed that the commission could play a key role in developing suitable material to support IAH's efforts. In addition Judith Flügge represented the new Early Career Network at the meeting, and Council agreed that the network should be permanently represented as an adviser at its meetings by the chairperson of the time (or a nominated representative) so that the group can fully contribute its views on the management and governance of IAH.

Responding to a request from the IAH Executive, Lenny Konikow and Antonio Chambel had prepared for Council a paper with recommendations for overhauling the way that we organise IAH congresses. This generated considerable discussion. Some of the recommendations are simple to implement and can be easily taken in hand, whereas others go to the heart of the relationship between IAH centrally and the local organising committee. As an important step in the process, the paper will be made available to members on the IAH website for comment. Consideration is being given to a survey of attendees at recent IAH conferences to ascertain more clearly what are perceived to be their stronger and weaker aspects.

Many of the activities within the Forward Look programme depend on IAH having an improved website. We have known this for some time, and the Secretariat prepared a paper on the website which was tabled at Council. This report included the feedback from our recent website survey. Both the structure and content need a major overhaul; discussion covered what needs to be done and how IAH should go about doing this. During the three days of the conference some of the Early Career Network members present prepared a "shopping list" of the features that a) must be, and b) should be included in a new website. After the conference closing session, the IAH Executive and the ECHN met again to review the list, to look at some preliminary work undertaken in Pretoria and to plan how this would be taken forward. Watch this space for further developments and opportunities to contribute.

JOHN CHILTON, SECRETARIAT



NATIONAL CHAPTER QUESTIONNAIRE

Preliminary results reported to Council

During the Forward Look meeting in Reading and at the first meeting of national chapter representatives in Krakow it became clear that IAH centrally did not have even the most basic background information about most of its own national chapters. A questionnaire to collect such information was distributed to national chapters in March 2011 and a report on the responses received so far was presented to Council in Pretoria.

Fourteen responses have been received, from Australia, Belgium, Canada, Croatia, France, Hungary, Ireland, Italy, Namibia, Norway, Poland, Portugal, Serbia and Spain. Most chapters operate with an elected committee and have their own bank account, especially where they collect membership fees and organise national activities. Five have their own newsletter and eight operate their own website or web pages which variously carry contact information, details of national committees, news about meetings and publications, and links to the main IAH site. The websites of Australia, Canada and Spain carry information about jobs and/or training courses.

All of the chapters who responded said that they hold national technical and scientific meetings and conferences. A few chapters provide support for sponsored members from chapter funds while others encourage individual members to sponsor developing country professionals to join the Association. Five chapters said that they hold joint meetings with other chapters, particularly Spain and Portugal and the Balkan countries. Scientific collaboration with other national organisations interested in groundwater is a common feature, and ten chapters have held joint meetings with other national bodies.

When asked about what they would like in terms of support from IAH centrally, the most frequent request was for support with hosting, development and harmonisation of websites or of dedicated national chapter pages on the main IAH website. Many suggestions were related to improved services from IAH centrally, including coordination and publicising job and training opportunities, better communication and cooperation between national chapters and with the Secretariat, including shared access to the membership database, and mentoring of young professionals. Some of these are already envisaged within the Forward Look action programme.

Where constraints on maintaining or increasing membership numbers were specified these included; older members retiring, the existence of an alternative option in a national association, the present economic situation (less employment in groundwater and also employers not paying membership fees for their staff), and the perceived high cost of membership in relation to the benefits.

While the information is far from comprehensive, it has provided useful background information on the way IAH's national chapters function, and highlighted or confirmed a number of issues which need attention or further consideration. The report will be placed on the IAH website, and we would still welcome responses from other national chapters.

JOHN CHILTON, SECRETARIAT



MEMBERSHIP LATEST

RENEWALS ADVICE

Fee rates frozen for 2012

We are pleased to announce that there will be no increase in membership fees for 2012. Although we expect IAH to show an operating loss for 2011 because of planned extra expenditure on publicity, Forward Look activities, website development, support for sponsored members and participation at conferences etc. the overall financial position of the Association remains sound, allowing for a second year at the current fee rates. The Secretariat is already planning for the upcoming renewal round which will be initiated right at the beginning of 2012.

You are urged to renew in a timely way, and to encourage friends and colleagues to renew or to join. Early indications are that we are likely to suffer a small decline in overall membership for the second year in succession. In recent years we have seen small fluctuations from year to year, rather than what may be a more worrying decline in successive years, so we must make 2012 a year when we turn talk of membership campaigns into reality.

If you have any queries regarding your membership Sharon Warden is always happy to assist. Email swarden@iah.org

Please also take a few moments to check/update your contact details when you renew.

GIVE AND RECEIVE!

Call for active support from IAH members

You will find in the same issue of the journal as this newsletter a separate flyer asking for your support by taking a more active role in IAH. We are at a point where initiatives (reported in this newsletter) to strengthen our commissions, website, conferences, chapters and public profile are underway, but we need as much collective effort as we can find. Please find a moment to look at this call to action, consider where you might be able to provide some support, knowledge or expertise, and get in touch. The more you give, the stronger the Association and the greater the benefits to you, our members in return!

SEASON'S GREETINGS

Message from the Secretariat

Christmas and New Year still seem far off as we finalise this newsletter, but by the time you receive it the festive and holiday season will be upon us. John, Kellie, Sharon and Sue would like to wish you all a happy Christmas and peaceful and successful 2012.



YOUR VIEWS SOUGHT ON MENTORING SCHEME

Quick IAH survey

IAH is considering the possibility of introducing a mentoring scheme for its members. How this might operate is currently under discussion. To help with our initial planning we need to find out the potential level of interest - from both potential mentors (givers of advice) and mentees (recipients) and any brief feedback you may have.

Go to <http://www.surveymonkey.com/s/BW8SYFQ> - it only takes a minute.

Further news on this will be reported later in 2012.



MEDIA FOCUS

A selection of groundwater features from around the world

South Africa's Toxic Legacy: Acid mine drainage threatens water supplies

Alexandria, VA – In the Witwatersrand goldfields, not far from bustling Johannesburg, South Africa, more than a century of mining has left the region littered with mounds of waste and underlain by a deep underground network of abandoned mine shafts, [many of] which are gradually filling with water. Today, the mines are producing less and less gold — and more and more sulfuric acid. Scientists estimate the volume of acid mine drainage from abandoned mines in the Witwatersrand goldfields alone could reach 350 million liters per day if something isn't done. A recent government report suggests that full cleanup will cost billions, not to mention the billions that would likely have to be spent to stop the ongoing damage. In “All That Glitters... Acid Mine Drainage: The Toxic Legacy of Gold Mining in South Africa” in the October issue, EARTH takes a look at how the toxic problem grew so massive, what steps could be taken to mitigate the damage before it is too late, and who should pay for the cleanup. *[ed: not surprisingly, this was a lead topic at the Pretoria conference]*

October 2011, American Geological Institute “Earth” magazine

<http://www.earthmagazine.org/earth/article/48e-7db-9-17>

A.C.T. Now to Protect Your Groundwater!

IAH is delighted to see more youngsters in the USA being encouraged to think about groundwater. Schoolchildren, seniors and community members celebrated “Protect Your Groundwater Day” Tuesday, September 13, by taking a pledge to conserve southern Los Angeles County's groundwater supplies. As many as 60 students from Rancho Santa Gertrudes Elementary school joined the Water Replenishment District and Assembly Member Tony Mendoza (D-Norwalk), and took the Acknowledge, Consider and Take Action (A.C.T.) Pledge to do something to protect local groundwater, from not polluting it to using it wisely..

Could this be more inspiration for us?

22 September 2011, EPG News

<http://egpnews.com/?p=31244>



Kindergarten and 4th graders from Rancho Santa Gertrudes School take the pledge to be water wise super heroes during WRD “Protect Your Groundwater Day” ceremony in Los Angeles County. (EGP photo by Fred Zermeno)

Groundwater greed driving sea level rises

IAH has also spotted that an article by Lenny Konikow, IAH Vice-President for North America, is featuring widely amongst more general scientific publications. Development of groundwater resources for agricultural, industrial, and municipal purposes [has] greatly expanded since 1950, but consequent depletion of this resource has had many negative consequences, including land subsidence, reduced well yields, and diminished spring and stream flows. A new comprehensive analysis by Lenny (recently published in Geophysical Research Letters, vol. 38) indicates that cumulative global groundwater depletion totaled 4,500 km³ during 1900-2008—almost the volume of Lake Michigan. Because most of this depleted groundwater is ultimately transferred to the oceans, this depletion volume can explain 12.6 mm of global sea-level rise—more than 6% of the total sea-level rise since 1900. The annual rate of groundwater depletion has accelerated in recent decades and was greatest during 2000-2008, when groundwater depletion balanced about 13 percent of observed sea-level rise. *[ed: Lenny made an excellent presentation of this work at the recent GSA conference]*

See Lenny's work in <http://www.newscientist.com/article/mg21128314.700-groundwater-greed-driving-sea-level-rises.html> and <http://news.discovery.com/earth/groundwaters-great-escape-to-the-sea-110923.htm>

PRESIDENT'S PAGE

There is a huge task for hydrogeologists and isotope hydrologists to bring to the attention of water managers and the public the fact that more and more non-renewable groundwater is being abstracted.



PROFESSOR WILLI STRUCKMEIER,
IAH PRESIDENT (GERMANY)

IS GROUNDWATER GAINING AWARENESS?

Out of sight, out of mind. The hidden underground part of the water cycle does not usually show on the screen when critical water issues at local, regional or global scales are reported. Groundwater is hard to show in pictures, yet it is present in our daily life as a secure source of drinking water, in goods from irrigated agricultural production or in industrial products.

Fortunately the groundwater resources “banked” in aquifers are still sufficient and healthy in most places, in contrast to many economies over-drafting their bank accounts quite drastically. However, there are clear signs of groundwater degradation, increasing pollution, over-exploitation and groundwater mining as well as damage to groundwater dependent ecosystems. Groundwater reserves in storage are being depleted in an increasing number of places around the globe. The careful analysis of global groundwater depletion by Lenny Konikow, IAH Regional Vice-President for North America, highlights its impact on global sea levels (see Media Focus on page 5; Lenny also made an excellent presentation of this work at GSA). Unfortunately, this depletion goes largely unnoticed and un-monitored, so that it is usually not accounted for in the balance sheets. There is a huge task for hydrogeologists and isotope hydrologists to bring to the attention of water managers and the public the fact that more and more non-renewable groundwater is being abstracted.

Water users tend to have an end-of-pipe perspective on water resources. They don't really care whether it is surface water or groundwater flowing from the tap; they are interested in good quality water and secure delivery at minimum cost. Why should they care whether the pumped groundwater is renewable or fossil? They cannot know the whole story because it is not taught in schools and not explained in the media. It is our difficult task to take them to the supply sources and teach them how to protect water resources, particularly the slowly-moving groundwater in storage, the banked treasure for future water supply in times when climate, land use, demographic and socio-economic patterns are all changing.

The Global Environment Facility (GEF) is now offering a big chance for us. A new project on groundwater governance has been launched by FAO, UNESCO-IHP, IAH and the World Bank. The project is expected to define a shared vision and global framework for action on groundwater governance. It will also encompass a series of communication tools for raising awareness about groundwater and its governance. IAH members and National Chapters are invited to underpin the project by providing case studies and best practice examples of groundwater management. Please inform the IAH Secretariat and/or Secretary General Shammy Puri if you would like to become involved.

Raising awareness and lobbying for groundwater was also identified as a priority for action in IAH's Forward Look. Members should have recently received with their last journal a nice flyer outlining IAH's future plans to 2020 and beyond. Besides activities for the internal development of IAH, some of which are already under way, such as the restructuring of commissions and networks, a number of priority actions concerning publication and outreach for groundwater were adopted by IAH Council in Pretoria. I just want to mention two new initiatives of direct benefit to IAH, first the newly established Commission on Groundwater Outreach for Decision-makers under the leadership of Andrew Stone and secondly the redevelopment of the IAH web site taken up by the IAH Secretariat in cooperation with the Early Career Hydrogeologists' Network represented by Judith Flügge and Nicholas Howden. Council and IAH members can anticipate results from these activities soon.

2012 will be an outstanding year of political action for the environment and water. It starts with the 6th World Water Forum in Marseille in March. In June the United Nations Conference on Sustainable Development known as Rio+20, will be held in Brazil. Groundwater will also play an important role during the 34th International Geological Congress in Brisbane/Australia, but the event of greatest interest to hydrogeologists is certainly the 39th IAH Congress in Niagara Falls next September (see page 22). At this Congress the term of the current Council comes to an end, and IAH members are invited to make nominations for election to the next Council (see page 24). I hope to meet many of you in Niagara Falls.

With season's greetings and my best wishes for a healthy, peaceful and successful 2012.

WILLI STRUCKMEIER, IAH PRESIDENT 2008-2012

IAH SUPPORT

Sponsorship scheme reminder

Many hydrogeologists in developing countries would like to join IAH and would benefit from membership but are prevented due to economic reasons, e.g. by the high level of the subscriptions in relation to local salaries or by problems of access to convertible currency. The problem persists even though IAH has a reduced fee for "lower income" countries.

To aid such individuals, and to help achieve our goal of greater international cooperation among groundwater scientists and engineers, IAH operates a scheme whereby members in higher income countries can sponsor a professional colleague in a developing country.

At present 240 hydrogeologists around the world are being sponsored by individual IAH members, by National Committees or from IAH central funds. By 2020 we would like this number to rise considerably. You can help IAH meet its goal by supporting our Sponsored Membership Scheme.

Potential sponsors and recipients can find out more on our website.

Go to http://www.iah.org/join_sponsorship.asp



Conference report

PRETORIA, SOUTH AFRICA

Geological Society of South Africa and the South African National Chapter of IAH prove to be excellent hosts



Regular readers will know that because the 2011 IAH congress could not take place in Ireland the Geological Society of South Africa and the South African National Chapter of IAH had agreed to host us at their own biennial meeting. This took place in Pretoria in September.

Although the 320 or so participants were dominantly from within South Africa, IAH colleagues from a number of countries in Europe, elsewhere in Africa and Asia were also there to take advantage of the excellent facilities offered by the recently re-furbished CSIR Conference Centre and its attractive grounds.

The intensive three day technical programme provided clear insights into the groundwater issues causing greatest concern in South Africa – groundwater level recovery and new discharges from disused mines, acid mine drainage, recent drought experiences along the south coast and in the north, exploration and development of groundwater with limited data, bringing science and policy together to manage groundwater and the potential impacts of climate change. The invited national and international keynote presentations nicely complemented these by providing broad overviews of the important roles that groundwater and groundwater professionals can play in helping to achieve water security in both rural and urban contexts.

The social programme included a welcome reception on the Sunday evening, a conference visit to Freedom Park which commemorates the heroes of the long struggle for

independence, and a conference dinner on the outside terrace. The dinner was preceded by a lively and energetic group drumming session which all present were invited to join in and which, as can be seen in the photos, was a great success.

The full meeting programme included time allocations for IAH Council to meet on the Sunday and the IAH AGM and the early career hydrogeologists' meeting on the Monday evening (all reported separately). There were insufficient representatives of IAH National Chapters to hold a formal meeting as scheduled, but some useful informal discussions took place. The IAH Executive also met on the Saturday before the conference. IAH maintained a booth in the main foyer of the conference centre which generated some additional memberships and a lot more interest amongst potential members, and also took orders for a good number of the IAH books which were on display.

Overall, the conference was a great success, and we are very grateful to Shafick Adams, Christine Colvin, Cilla Taylor, Jude Cobbing and all their colleagues on the organising committee for making IAH so welcome and for finding space for us in the programme so that the business needs of the Association were met and so that we could also contribute to the technical programme of the conference.

JOHN CHILTON, SECRETARIAT

EARLY CAREER HYDROGEOLOGISTS MEET IN PRETORIA

ECHN invitation receives great response from junior hydrogeologists

The IAH Early Career Hydrogeologists' Network (ECHN) strongly beat the drums for their second meeting at the GWD-GSSA/IAH Conference in Pretoria, and more than 60 young professionals responded to the call.

The meeting was chaired by Judith Flügge (IAH, Germany) and Matthys Dippenaar (IAH/GWD, South Africa). The ECHN focuses on networking and information sharing between junior hydrogeologists. Participants at the meeting were invited to join IAH as well as the subgroup of IAH on the LinkedIn platform, where they have access to job postings, conference announcements, hydrogeological discussions and invitations to early career hydrogeologists' meetings.

The ECHN introduction was followed by a social event. The participants were asked to answer three questions, while they had a chance to have a drink, discuss, network, and socialize:

1. What are the biggest problems at the start of your career?
2. What do you expect IAH to do for you as an early career hydrogeologist?
3. What could you contribute and where would you want to be involved?

Needless to say one of the most urgent problems for junior hydrogeologists at the start of their careers is finding a job. From the substantial feedback it turned out that one profound problem is the lack of a network for support, and also that many feel they don't have enough experience. Therefore, they would like to receive career advice, for example from a mentor, have training opportunities and have a chance to network with other early career hydrogeologists. It was good to see that many participants had concrete ideas about what they could contribute themselves, and many would be willing to help other early career scientists. This ranges from setting up a national group of early career hydrogeologists to mentoring other junior scientists, for example by reviewing papers. These positive ideas confirm us in our mission and encourage us to keep building the network.

The participants at the meeting were asked get involved at the LinkedIn group. The more members join the group, the more job postings and discussion forums there will be available. One aim is to have a database on the new IAH website in which senior hydrogeologists indicate whether they are available for mentoring enquiries and giving advice to younger hydrogeologists. Addressing the need for advanced training and networking, as many ideas as possible will be taken up for the IAH Congress in Canada in 2012, e. g. master classes and a third early career hydrogeologists' meeting. Further options are currently being discussed within the ECHN.

We would like to thank John Chilton of IAH and Cilla Taylor of the organizing committee for support in scheduling and organizing the meeting, and the sponsoring of the drinks was very much appreciated.

JUDITH FLÜGGE AND MATTHYS DIPPENAAR, EARLY CAREER HYDROGEOLOGISTS' NETWORK

Join the group at: <http://www.linkedin.com/groups?%0BmostPopular=&gid=3717583>



Yes! We all plan to be life-long members of IAH (ambitious thinking on the part of the Secretariat)

IAH AWARDS ANNOUNCED IN PRETORIA

Three well-deserving figures are given IAH recognition of their efforts in the groundwater arena

As is the normal custom, the annual awards were announced at the IAH General Assembly in Pretoria. The Presidents' Award is given in recognition of outstanding international contributions to groundwater science and to furthering the Association's mission to promote understanding and management of groundwater resources. Willi Struckmeier announced that the 2011 recipient was Professor Ken Howard, who has fully met both criteria during his career.

Ken graduated from the University of Exeter in 1974 with Combined Honours in Physics and Geology, and then obtained an MSc in Hydrogeology at the University of Birmingham in 1975. He continued there to complete a Ph.D under the wise guidance of Professor John Lloyd on the hydrochemistry of the Lincolnshire Chalk aquifer. In 1981 Ken moved to the University of Toronto at Scarborough, becoming a full professor of hydrogeology with tenure in 1997.

His research interests are broad and have ranged widely over the hydrogeological spectrum, but with special interest in the impacts of human activities on the quantity and quality of groundwater resources in many parts of the world. He has authored or co-authored 103 books and refereed journal articles and full conference papers, produced numerous conference abstracts and made many invited presentations at conferences around the world.

Ken has been an IAH member since 1987 and was Regional Vice-president for North America from 2000 to 2008. He is currently Vice-president for Scientific Programme Coordination and in this role has successfully led the review and reform of the Association's science commissions. He is, however, probably best known to IAH members as the Chair from 1997 to 2011 of the Commission on Groundwater in Urban Areas. This has been one of the Association's

most consistently active Commissions, due in no small measure to the skill and enthusiasm of his leadership.

The General Assembly approved the award of Honorary Membership to Mario Hernandez from Argentina. Mario has been a stalwart of the Association for many years, and members may recall his role in seeing the Mar del Plata IAH congress in 2002 through from inception to successful conclusion. Mario was not in Pretoria to receive the award, which will be presented as soon as a convenient occasion arises.

Finally, Willi Struckmeier informed the meeting that the recipient of the 2011 IAH Distinguished Associate Award was to be the Hon. Maria Mutagamba, Minister of Water in Uganda. Willi explained that Maria has been promoting the cause of groundwater for Africa in AMCOW and was very supportive to the 2008 climate change and groundwater conference in Kampala. Moreover she is certainly one of the few politicians who have a really positive appreciation of groundwater. She graduated in economics and started her career in banking before moving into national politics in Uganda. She has been Minister of Water and the Environment for Uganda since 2006 and President of the African Ministers Responsible for Water (AMCOW) since 2004. She was unable to be at the conference in Pretoria, but IAH will arrange for her to receive the Award on a suitable occasion in the near future.

JOHN CHILTON, IAH SECRETARIAT

COMMISSIONS & NETWORKS

Since the first round of new and re-established commissions and networks were approved in June and became operative from 1st July, we have received three more proposals.

These are for a new Commission on Regional Groundwater Flow, re-establishment of the Commission on Mineral and Thermal Waters and a new Network on Groundwater and Ecosystems. All three of them meet our criteria for applications, were tabled and discussed at the Executive and Council meetings in Pretoria, and (as at the end of October) are with Council for final approval. More news to follow on our website.

In the meantime, the Secretariat has received photographic evidence of the first activity of the new IAH Commission on Groundwater Outreach for Decision Makers. The picture below shows teachers from Guatemala, Honduras, the Dominican Republic and El Salvador at a three-day training event organized by the American Ground Water Trust, the United States Geological Survey and San Antonio Water System. The event was referred to as “Endorsed by the IAH Commission on Groundwater

for Decision-makers.” In many developing countries teachers have a significant influence on local decisions. Helping these teachers with some background on “hydrological literacy” will, it is hoped, have an impact in their communities when they leave the US and return to their local schools.

Commission Chair Andrew Stone told us in Pretoria that he has received considerable interest from IAH members in joining the work of the Commission.

Efforts by the newly formed Early Career Hydrogeologists’ Network are described elsewhere in this newsletter.

We are, of course, still keen to encourage IAH members to become involved in the commissions and networks which were established from 1st July, as reported in the August newsletter. Please contact either the commission chairs whose details now appear on the IAH website, or via jchilton@iah.org.

IAH EXECUTIVE

To help promote the work of your commission or network, we need to have regular news, meeting dates etc. Email updates to knicholson@iah.org.



Report by Professor Stephen Foster, IAH Past President

GW-MATE

A decade of experience in promoting investment for groundwater management

From 2001 to 2010 GW-MATE, the Groundwater Management Advisory Team (a multi-disciplinary expert group), supported by a consortium of EC governments, was engaged with World Bank clients in more than 20 countries worldwide (map below) to promote institutional strengthening for groundwater resources and to mobilise practical project-level investments in their management and protection at local scale.

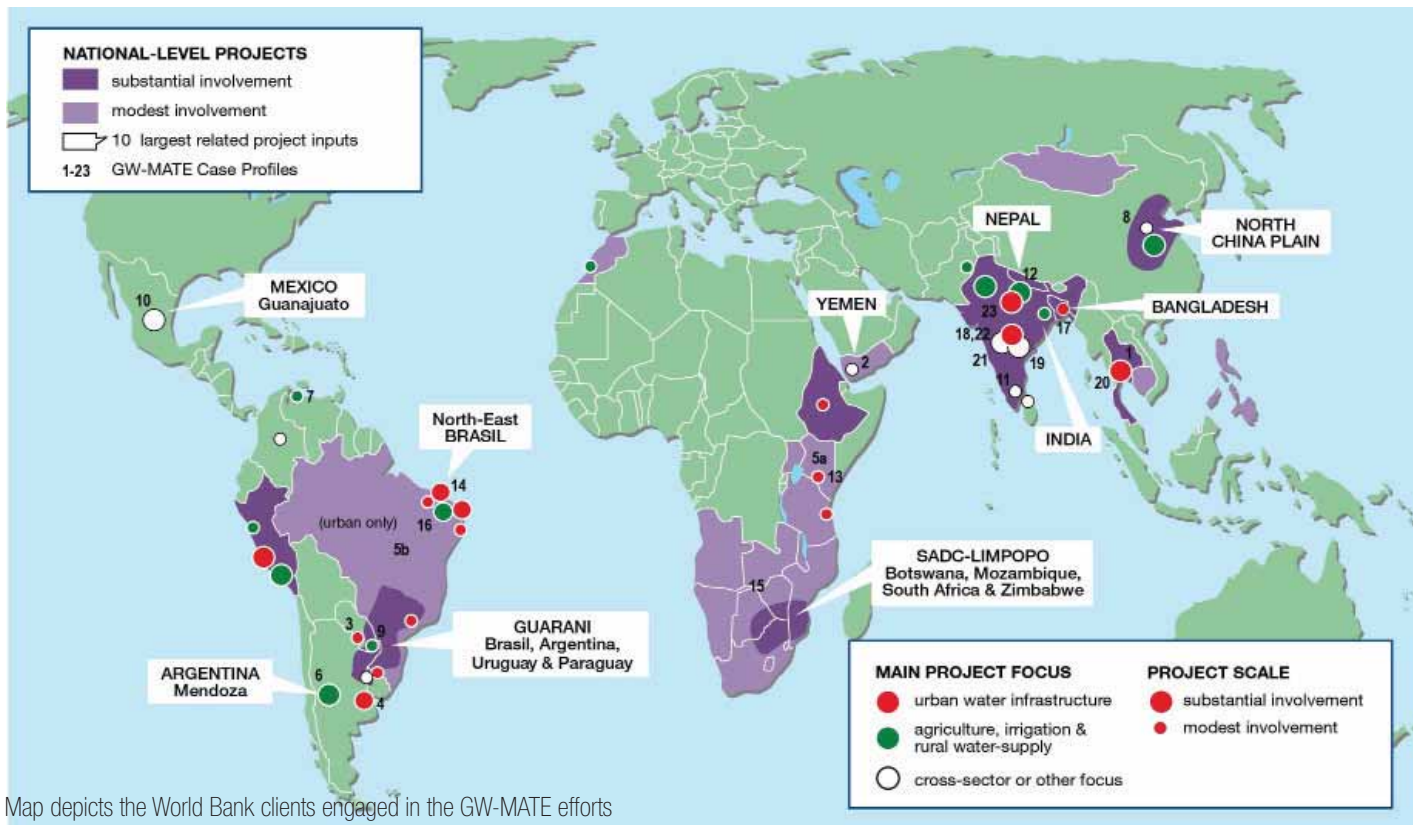
The programme of work led naturally to the development of two important and practical sets of publications on sustainable groundwater management (until then a relatively neglected area) – which are available from <http://>



Professor Stephen Foster, IAH Past President (UK)

www.worldbank.org/gwmate or <http://www.gwpforum.org/groundwater> - Briefing Note Series on Concepts and Tools (series introduction plus 16 titles) and Case Profile Collection of Lessons from Practice (a total of 23 titles).

More recently during 2010-11, and with supplementary funding from the Global Water Partnership (GWP), GW-MATE has put considerable effort into producing a new series of publications – the Strategic Overview Series – which synthesises experience over a decade in various aspects of groundwater resource management as contributions to policy promotion.



Map depicts the World Bank clients engaged in the GW-MATE efforts

GW-MATE STRATEGIC OVERVIEW SERIES:

SO-1: GROUNDWATER GOVERNANCE - conceptual framework for assessment of provisions and needs

SO-2: CONJUNCTIVE USE OF GROUNDWATER AND SURFACE WATER - from spontaneous coping strategy to adaptive resource management

SO-3: URBAN GROUNDWATER USE POLICY - balancing the benefits and risks in developing nations

SO-4: SUSTAINABLE GROUNDWATER IRRIGATION - approaches to reconciling demand with resources

SO-5: APPROPRIATE GROUNDWATER MANAGEMENT POLICY FOR SUB-SAHARAN AFRICA – in face of demographic pressure and climatic variability

The titles of the five papers are given above. They should be of interest to all those working on the challenges of groundwater resource management and quality protection in the developing world as well as groundwater scientists wanting to have a stronger grasp of the developmental context of their research.

Groundwater sustainability is closely linked with a range of micro- and macro-policy issues influencing water and land use and represents one of the major challenges in natural resource management. Groundwater management action plans (founded on sound technical diagnosis) are typically a balance between:

- (a) community awareness raising, participation and self-regulation;
- (b) resource administration and use regulation;
- (c) macro-policy interventions to constrain demand;
- (d) demand-side and/or supply-side engineering.

The appropriate balance between such measures will depend greatly on the local hydrogeologic and socioeconomic setting. A standardised blueprint is simply inadequate but a pragmatic framework has been developed to aid the selection of measures.

In promoting advances in groundwater management, numerous misconceptions have to be overcome, including:

- resource deficits can be met by supply-side measures alone (when in reality measures to control

demand will always also be necessary to achieve sustainable outcomes);

- improvements in 'irrigation efficiency' alone will lead to 'real groundwater resource savings' (this is only the case when they reduce non-beneficial evaporative losses and the reverse is quite often found to be the case);
- urban water-service utilities can develop sustainable water-supply and sanitation solutions without understanding and respecting the dynamics of the local groundwater regime (in reality they are greatly affected by private groundwater use and need groundwater storage reserves to confront climate-change impacts) ;
- reluctance to recognise non-renewable groundwater resource exploitation (which for rational utilisation requires sound understanding, proper planning and justifiable economic returns).

GW-MATE is currently in a dissemination phase with the support of the GWP, and negotiations are also underway on the attachment of a GW-MATE Facility to a leading national water-sector centre in The Netherlands, such that the senior members of the team could be mobilised for delivering intensive high-level short courses on groundwater governance, management and protection and furthermore assisting governments on request in the elaboration of national or provincial groundwater management plans, and in the reform or strengthening of groundwater institutions.

Conference report

IAH AT GSA

John Chilton, Ken Howard and the US National Chapter represent IAH at the Geological Society of America's annual conference, and learn much for the Association from the experience

In deciding earlier in the year which international meetings the Association should be represented at, the Executive included the Geological Society of America (GSA) meeting in Minneapolis in October. Having reserved a booth in the exhibition hall, myself, Ken Howard and members of the IAH US national chapter committee spent the four days promoting IAH in general and our 2012 congress in particular. The objectives were to raise the profile of the Association in North America and, in view of the desire to strengthen our own congresses, to see what lessons could be learnt from there.

The annual meeting of GSA is a huge affair; the organisers announced on the final day that 6300 had attended this year. The conference is not expensive in terms of registration fees and has very large poster sessions. There are also large numbers of university booths trying to attract graduate students, and these features make it very student-friendly.

While the overall theme is as broad as could be:

“Archean to Anthropocene: the past is the key to the future”, individual convened sessions were rather focussed. In hydrogeology, typical examples were - “Gas bubbles and dissolved gases in groundwater”, “Buried valley aquifers”, “Identifying and quantifying groundwater flow using heat as a tracer”. There were also broader sessions such as “Environmental

problems in karst terrains”, “Pathogens and faecal indicators”, “Groundwater-surface water interaction”. This approach keeps like-minded hydrogeologists interested in each topic together, and probably helps reduce movement between rooms during sessions. The sessions I looked in at were typically attended by 30-80 people, except for invited lectures such as the Darcy and Birdsall-Dreiss for which the rooms were completely packed.

At first sight the programme is totally overwhelming, but there was logic to it and the hydrogeology sessions were generally in the same rooms. Being in a modern conference centre, all facilities were first class. Speakers in most sessions were given fifteen minutes (nominally 12 with 3 for questions), with very strict time keeping to allow movement between sessions. There were hardly any speaker “no-shows”; gaps were left or discussion was allowed to continue when there were missing speakers, again to keep to the parallel sessions on their scheduled time.

We had a steady number of visitors to the booth, both IAH members and interested non-members. The questions from students encountering IAH for the first time, such as “What training courses do you run?” and “How can IAH help me get a job?” confirm the need for IAH to strengthen its member benefits in the educational and career fields. At the moment we cannot answer

these in ways that would really convince students and young professionals to join. The membership benefits that are highlighted in our publicity literature, - the journal, conferences, book discounts, commissions and newsletters are genuine and well-established and are interesting to such potential members, but not enough by themselves to encourage them to join. On the positive side, large numbers of people picked up IAH literature and talked to us about groundwater, and IAH will have entered into the minds of many of them for the future.

It was a very intensive four days. Ken and I attended the GSA Hydrogeology Division lunch and the US national chapter committee meeting and joined the committee members for dinner. We also had useful discussions with the Australian National Groundwater Training Centre, the NGWA and the new Canadian

organisation Hydrogeologists Without Borders (HWB) about future collaboration. There is much for me to follow up and feedback is coming in after the conference. Thanks to Mike Wireman, Lenny Konikow, Vic Heilweil and Vicky Kretsinger for their support at the booth during the conference.

JOHN CHILTON, SECRETARIAT



John Chilton, Lenny Konikow and US chapter representatives deep in discussion with Cathy Ryan of Hydrogeologists Without Borders (HWB)

NGWA DARCY LECTURE

Your editor missed the 2011 NGWA Darcy Lecture in London, but caught up with it at GSA in Minneapolis. A distinguished lecturer is selected each year by NGWA in honour of Henry Darcy and delivers the lecture a good number of times each year, mostly within the USA, but also in Europe and maybe elsewhere. It occurs to me that there could be opportunities to build a national meeting around this lecture, as the Hydrogeology Group of the Geological Society of London does in the UK. I know that The Netherlands National Chapter have also done this, or do so regularly, and I would be interested to hear from any other national chapters who have done this or would like to do so. We are keen to strengthen collaboration with NGWA.

JOHN CHILTON, SECRETARIAT



STILL GROWING

The IAH LinkedIn group has now grown to over five hundred members (reaching this number just after the group's first birthday). Still more are joining. Threads include wide-ranging technical discussions, news, announcements, opportunities, and more.

Our Membership Secretary Sharon Warden has taken over the administration of the group. Our thanks go again to Sophie Vermooten for the LinkedIn community idea and her efforts in its first year. Join now to take part!

SECRETARIAT

Follow link on IAH's home page to join the group.
<http://www.iah.org>

South Africa

Chapter meeting hails new committee

The South African national chapter of IAH took the opportunity to meet at the groundwater conference in Pretoria. Following elections at the meeting, the new Chair of the chapter is Jude Cobbing and Secretary Matthys Dippenaar. The Secretariat looks forward to collaborating with Jude and Matthys and other members of the chapter to help build on the renewed interest in IAH shown by participants at the Pretoria conference.

SECRETARIAT

Spain

Former IAH President Honoured

From 17th to 19th September in Zaragoza the IAH-Spanish National Chapter organised the Iberian Congress: “Las aguas subterráneas: desafíos de la gestión para el siglo XXI”. Amongst the other scientific activities, the last session of the congress was devoted to an appreciation of the hydrogeology contributions in honour of our former President, Professor Emilio Custodio.



In a very emotional session conducted by members of the Spanish chapter, former colleagues and students, the publication ‘Cuatro décadas de investigación y formación en Aguas subterráneas, a book dedicated in homage to Emilio was presented. The book aims to express the recognition of more than 100 national and international contributors of Professor Custodio’s lifelong work. The first part covers aspects of his life, lecturing and scientific research and contributions in the second part focus on many aspects of his research on volcanic islands, coastal aquifers, natural recharge, isotopes and hydrochemistry and groundwater management. The picture shows Javier Lamban, vice-president of the IAH-Spanish Chapter making a presentation to Emilio at the session.

LUCILA CANDELA, SPANISH NC

Sweden

Hopes for establishment of new chapter

We are happy to report that a new Swedish group of IAH is hopefully about to be established. The coordinator Jeff Lewis has been working with the Geological Survey of Sweden on a groundwater seminar (November 2011), presenting the opportunity to increase both our membership and IAH's profile in Sweden and to establish an active National Chapter there.

IAH is grateful to Jeff for taking this initiative. An article Jeff and others wrote for a national publication follows, overleaf, which is likely to resonate with many - not just those in Sweden. If you would like to help IAH get off to a really good start in the country, please contact jeffrey.lewis@foi.se.

Similar initiatives are at an earlier stage in several other countries. If you would like to do the same in your country, please contact jchilton@iah.org or knicholson@iah.org for advice and support.

JEFF LEWIS, SWEDEN, AND IAH SECRETARIAT

United Kingdom

Visit from down under

The 2011 Ineson Lecture convened by the IAH British National Chapter was given by Professor Ian White of the Australian National University. His chosen topic: "Integrating Land and Groundwater Management: Experiences in Australia and the Pacific" provided fascinating insights into the need for hydrogeological knowledge in integrating land and groundwater management. This theme was illustrated by the examples of the acidification of ground and surface waters and salinity in upland catchments of the Murray-Darling Basin and, in complete contrast, by the very vulnerable freshwater lenses of the small island states in the Pacific. A lively discussion on the role of hydrogeologists in assisting with the development of policy and regulations for land use and water resources followed.

Ian's lecture was ably supported by UK speakers from the regulatory, academic, water company and bottled water sectors, all of whom provided the audience with further stimulus for discussion on what was an instructive and enjoyable afternoon, rounded off with a glass or two of wine and a chance to meet the speakers and other hydrogeological colleagues.

JOHN CHILTON, UK

DEBATE

Why many environmental impact assessments in Sweden are underestimating the level of contamination

Sweden has fallen behind most other developed countries in applying groundwater science to environmental problems. County administrators, environmental courts, contractors and other environmental stakeholders need to better integrate hydrogeology into the decision-making process if the Swedish environmental goal of remediating all contaminated sites by the year 2050 is to be achieved.

Ironically, the shortage of hydrogeological knowledge in Sweden was probably caused by the abundance of water here. There are plentiful surface water supplies and extracting groundwater from Swedish glaciofluvial deposits is usually straightforward. As a result, until about 1990 no hydrogeological training was available in Sweden. Internationally, where efficient groundwater exploitation is an economic necessity, many universities had developed hydrogeology courses by the 1950's.

Abroad, hydrogeological knowledge started to be transferred from water production to the treatment of contaminated sites in the 1980's. Today, regulators in many developed countries require a professional hydrogeological analysis of contaminated sites. There are several reasons for this. First, human exposure to environmental contamination is most likely to occur by drinking contaminated water. According to the Swedish Water and Wastewater Association, about



Dr. Jeff Lewis, Sweden

50% of the Swedish population obtains their drinking water from groundwater supplies. Secondly, aquifers are a major source of water for wetlands, lakes and rivers. They are therefore a common but invisible pathway for polluting sensitive aquatic ecosystems. Finally, groundwater is the most important mechanism for pollutant transport on

land, and it can spread contamination many kilometers from the original source. These facts make it impossible to perform an accurate risk assessment at most sites without thoroughly understanding the behavior of the groundwater. Despite this, few environmental projects or environmental impact assessments in Sweden include a complete hydrogeological study.

The Swedish Environmental Protection Agency (SEPA) estimates that there are up to 83 000 contaminated sites in Sweden, of which about 20% are seriously polluted. In the United States, about 80% of highly polluted sites have also been found to have groundwater contamination issues. This suggests that up to 10 000 sites in Sweden will require some kind of hydrogeological analysis by 2050. It is therefore startling that a review of completed remediation projects compiled by SEPA reports that only 55 contaminated sites in Sweden underwent groundwater remediation between 1994 and 2005.

Without a hydrogeological assessment to determine the extent and location of groundwater contamination, trying to remediate a site is like trying to sweep a floor while blindfolded. When you can't see where the dirt is, the clean-up won't be very effective. This will cause cost overruns, missed milestones, conflicts between the stakeholders, and a site that is not as clean as it could be.

Integrating hydrogeology into the environmental decision making process only improves the chance of success – it cannot guarantee success. It is still technically impossible today to remediate most sites to the state they were in before they were contaminated. This is particularly true with chlorinated solvents –a widespread form of environmental pollution that Sweden has only begun to deal with. However, hydrogeologists can make substantial contributions to risk analysis, risk-based

screening levels for contaminants, determining the extent of pollution and designing systems that can reduce the spread of contamination.

Swedish hydrogeologists have been working in relative isolation and have not had an organization to advocate the value of their skills. A Swedish branch of the International Association of Hydrogeologists (IAH) is being established to respond to this need. Groundwater professionals who are interested in joining should contact me (jeffrey.lewis@foi.se) for more information.

JEFF LEWIS, FOI-CBRN

MARTIN BERGVAL, TYRÉNS

SVEN FOLLIN, SF GEOLOGIC AB

LOTTA LEWIN PIHLBLAD, STATS GEOLOG, SGU

PATRIK LISSEL, WSP ENVIRONMENTAL

JAN SJÖSTRÖM, FOI-CBRN

KENT WERNER, EMPTEC



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POLAND

Report from 2nd International Field Workshop for Young Hydrogeologists

The 2nd International Field Workshop for Young Hydrogeologists had as its leading theme: “The impact of human activities on groundwater”. It was held from 10 to 12 June 2011 in Złoty Potok, a charming village in the picturesque karstic area of the Jurassic Upland of Poland.

The workshop was organized by the Students Scientific Association of Hydrogeologists “AQUA” at the University of Silesia, together with the Department of Hydrogeology and Engineering Geology of the University of Silesia, the IAH Commission on Groundwater Protection and the Polish National Chapter of IAH.

The programme of the workshop included a geological field trip, a half-day field course on groundwater monitoring as well as technical presentations. The workshop was attended by 40 participants from Poland, Slovakia and Nigeria. The meeting was convened by Andrzej Witkowski, president of the Polish National Chapter of IAH.

During the field trip from Sosnowiec to Złoty Potok the participants saw the interesting landscape and hydrogeology of the karstic area of the Polish Jurassic Upland. The field course included presentations of modern methods of groundwater monitoring. Up-to-



Field course on groundwater monitoring, Poland

date, world-class technologies for groundwater sampling and testing were presented, including a well-equipped mobile laboratory.

During the paper and poster sessions the students primarily presented the results of their own research. The eight presented papers mainly

focused on issues of human impact on the aquatic environment. This session was closed by Andrzej Witkowski who delivered paper on “International Association of Hydrogeologists – integrating forum for young hydrogeologists”. It presented this worldwide organization and encouraged students and young hydrogeologists to participate in its activities. The six posters mainly focused on the issues of quality and quantity of groundwater as well as the factors which influence groundwater.

Similarly to the previous year, a lot of positive emotions were evoked by the contest for the best presentation. The winners in the category of a multi-media presentation were: Dorota Pietrucin from the Academy of Mining and Metallurgy, Krakow, second was Kornelia Zukowska from Warsaw University, and third Mohammed Yerima Kwaya from the Federal Technical University of Damatur, Nigeria. In the poster category the winner was Agata Metlak from Warsaw University.

These students received prizes donated by Prof. Andrzej Kowalczyk, the vice-Rector for Research and Cooperation with the National Economy, University of Silesia. The participants also enjoyed a six kilometre river rafting trip along the Białka.

Participation in the workshop gave an excellent opportunity for the students to become familiar with research conducted in various national and international scientific bodies. It was an effective forum for exchanging experiences and views on issues of risk and groundwater protection. Moreover, the workshop enabled the students to broaden

their knowledge of the technology of groundwater monitoring. Such meetings fulfill an important role in the integration of national and foreign academic centres which educate hydrogeologists. Thus, they should permanently enter the international calendar of hydrogeological events.

ANDRZEJ WITKOWSKI, POLAND

(I agree with Andrzej. we have discussed this type of activity within the IAH Forward Look. We would be happy to report on similar activities in the newsletter -JC)

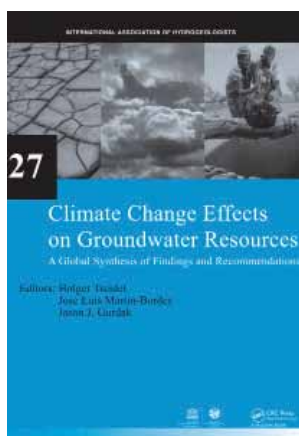
NEW IAH BOOK - 60% DISCOUNT TO MEMBERS

Climate Change Effects on Groundwater Resources: A Global Synthesis of Findings and Recommendations

Edited by Holger Treidel, UNESCO, International Hydrological Programme, Paris, France; Jose Luis Martin-Bordes, UNESCO, International Hydrological Programme, Paris, France and Jason J. Gurdak, San Francisco State University, California, USA

Climate change is expected to modify the hydrological cycle and affect freshwater resources. Groundwater is a critical source of fresh drinking water for almost half of the world's population and also supplies irrigated agriculture. Groundwater is also important in sustaining streams, lakes, wetlands, and associated ecosystems. Despite this, knowledge of the impact of climate change on groundwater quantity and quality is limited.

Direct impacts of climate change on natural processes may be exacerbated by human activities (indirect impacts). Climate change effects on groundwater resources are, therefore, closely linked to other global change drivers, including population growth,



urbanization and land-use change, coupled with socio-economic and political trends. Groundwater response to global changes is a complex function that depends on climate change and variability, aquifer characteristics, vegetation dynamics, and human activities.

This volume contains case studies from diverse aquifer systems, scientific methods, and climatic settings that have been conducted in the UNESCO-IHP GRAPHIC project. This book presents a synthesis of scientific findings from the case studies and policy recommendations for scientists, water managers and policy makers towards adaptive management of groundwater under future climate change.

December 2011: 234 x 156: 352pp
Hb: 978-0-415-68936-6: £82.00 \$129.95 (full price, 60% discount applies to IAH members)

For more information and order form see IAH website or email info@iah.org

CONGRESS NEWS

Update from Niagara Falls, Canada

We are now less than a year away from the Niagara Falls IAH Congress. From 16-21 September 2012 we will be meeting at the beautiful Sheraton-on-the-Falls Hotel which sits just downstream of, and overlooks, Niagara Falls. The hotel has wonderful rooms for guests and is linked to a casino and an indoor water park next door, so Niagara Falls 2012 could turn into a holiday for the entire family... With the leaves just starting to change to their fall colours of red, orange and yellow, September is a perfect month to travel to Ontario, Canada.



ABSTRACTS: Look out for the opening of the call for papers on 1 December 2011.

TECHNICAL PROGRAMME

The theme of our conference is “Confronting Global Change” and will focus our technical programme on the profound environmental, economic, technological, and political changes that are occurring at a global scale. Technical sessions will cover many topics across the breadth of groundwater science. Visit the Congress website at <http://www.iah2012.org/> for more information. We have invited four of Canada’s world-renown hydrogeologists to be our main plenary speakers: John Cherry, Allan Freeze, Frank Schwartz, and Jozef Tóth have all graciously agreed to be our featured speakers. These will be talks that you won’t want to miss!

FIELD TRIPS

Several post-conference field trips are being planned. The first will be 3 to 4 days and will focus on the Quaternary geology and hydrogeology of the Lake Ontario and St. Lawrence Lowlands. The trip will start from Niagara Falls and wind along the north shore of Lake Ontario and the St. Lawrence River, finishing up in the beautiful and historical Provincial capital of Quebec City. A second 2 to 3 day trip will head into Canada’s famous Canadian Shield country to take advantage of the beautiful fall colours that surround the Shield’s many lakes. The trip will travel to the Sudbury Basin, one of

Canada’s most important mining areas and the second largest impact crater on earth. A third shorter trip will head for the Niagara Escarpment and Oak Ridges Moraine areas to the west and north of Toronto with a focus on surface water-groundwater interaction and urban groundwater issues.

Prior to the conference join us for a leisurely biking tour of the Niagara Parkway.

SOCIAL PROGRAMME

In addition to a strong technical programme, the committee has also been working to ensure that your visit is memorable from a social point of view. We have arranged for the conference gala dinner to be held at the Elements Restaurant which sits on the brink of the Canadian Horseshoe Falls. Beneath the restaurant, we will have exclusive access to the tunnels that lead underneath and behind Niagara Falls. Take the elevator to the bottom of the falls and gaze up in wonder and amazement as nearly 5,400 m³/second of water, the drainage from over 400,000 square kilometres of the North American continent, drops more than 50 m into the Niagara Gorge!

While in Niagara Falls the Congress will also provide opportunities to visit local award winning wineries. We are also planning a road hockey game - come and take on your Canadian colleagues in one of Canada’s most celebrated sports. Look for the Wednesday night alumni events to be held after our mid-congress field trip which will visit many of the local geological and tourist spots surrounding Niagara Falls.

All in all IAH 2012 Niagara Falls is shaping up to be a one-of-a-kind IAH Congress - a celebration of 40 years of the IAH in our country. We welcome the world with open arms and invite you to mark your calendars for September 16, 2012.

CANADA 2012 ORGANISING COMMITTEE

2012 congress website:<http://www.iah2012.org/>

2012

21-23 February: Yazd, IRAN. International Conference on Traditional Knowledge for Water Resources Management.
Web: <http://conference.icqhs.org/Index.php/tkwrm/2012>

27-29 February: Cairo, EGYPT. Sustainable Water Supply and Sanitation Conference (SWSSC 2012).
Email: swssc@hcwww.com.eg Web: <http://swssc.hcwww.com.eg>

12-17 March: Marseille, FRANCE. 6th World Water Forum. Web: <http://www.worldwaterforum6.org/en/>

14-17 March: Hannover, GERMANY. Hydrogeology of Arid Environments.
Email: hydro-arid-2012@bgr.de Web: <http://www.bgr.bund.de/hydro-arid-2012>

26-29 March: London, UK. Planet Under Pressure. Web: <http://www.planetunderpressure2012.net/>

21-24 May: Prague, CZECH REPUBLIC. GwFR 2012 - International Conference on Groundwater in Fractured Rocks.
Organised by IAH Czech Chapter, IAH HyRoC, ICGW of IAHS.
Email: Zbynek_Hrkal@vuv.cz or Karel.Kovar@pbl.nl Web: <http://web.natur.cuni.cz/gwfr2012/>

28 May - 2 June: Ohrid, REPUBLIC OF MACEDONIA. BALWOIS 2012 on Water, Climate and Environment.
Web: <http://www.balwois.com/2012>

17-21 June: Buzios, BRAZIL. SWIM 2012 (Salt Water Intrusion Meeting). Email: swim22brazil@geologia.ufrj.br

17-23 June: Albena, BULGARIA. 12th International Multidisciplinary Scientific Geo-Conference and Expo - SGEM 2012 (Surveying Geology & mining Ecology Management). Email: sgem@sgem.org Web: <http://www.sgem.org>

13-15 August: Oulu, FINLAND. The XXVII Nordic Hydrological Conference - Nordic Water 2012.
Web: <http://nhc2012.oulu.fi/index.html>

20-24 August: Cartagena de Indias, COLOMBIA. 12th Latin American Hydrogeological Congress.
Web: <http://www.asociacioncolombianadehidrogeologos.org/congreso/>

2-7 September: Berlin, GERMANY. 3rd International FEFLOW User Conference (FEFLOW 2012). Organised by DHI-WASY.
Email: feflow2012@dhi-wasy.de Web: www.feflow.com/feflow2012

16-21 September: Busan, SOUTH KOREA. IWA World Water Congress and Exhibition. Organised by International Water Association (IWA). Web: <http://www.iwa2012busan.org/>

16-23 September: Niagara Falls, CANADA. Confronting Global Change. 39th IAH Congress. Organised by IAH Canada.
Email: info@iah2012.org Web: <http://www.iah2012.org/>

24-27 September: Vienna, AUSTRIA. HydroPredict'2012. International Interdisciplinary Conference on Predictions for Hydrology, Ecology, and Water Resources: Water Resources and Changing Global Environment.
Email: Hans_Peter.Nachtnebel@boku.ac.at or Karel.Kovar@pbl.nl Web: <http://web.natur.cuni.cz/hydropredict2012/>

For a fuller list of conferences and more details, including links to websites visit www.iah.org/confs/

We are happy to accept information concerning upcoming groundwater events from organisers email knicholson@iah.org with full details.

ADVERTISING AND COPY INFORMATION

IAH News and Information is published 3 times a year and distributed as an insert in Hydrogeology Journal. It reaches all members and associated members of the International Association of Hydrogeologists and subscribing members of the Geological Society of America – a distribution of around 4000 individuals.

Advertising rates are €300 per full-page advert and €200 per half page. These rates apply for one issue. If you take an advert in two successive issues then the third is offered free of charge. Corporate sponsors and corporate members of IAH are entitled to 50% off the above rates. Copy must be provided electronically – please contact knicholson@iah.org for acceptable formats. You will be invoiced for payment in euros or at the equivalent rate in sterling or US dollars when the advertisement is agreed. Copy dates are 1 March, 1 June and 1 October.

IAH COUNCIL ELECTION

First call for nominations – could you help run our Association?



IAH is run by a Council of 13 members who are elected every four years. IAH is a charitable, incorporated organisation and therefore the members of Council are the trustees of the charity and the Directors of the company. The term of the present Council ends with the General Meeting of the Association in Niagara Falls next September.

The Association is at a potentially exciting time. The new commission structure is in place, developments of member benefits and services envisaged in the Forward Look have been initiated and need further energy. The encouragement of young professionals is off to an excellent start and needs to be built on. Council has a key role to play in taking these initiatives forward, and we encourage you to consider serving as a member. We are particularly looking for energetic and committed Regional Vice Presidents who can promote IAH within their regions and identify suitable events at which this can be done, liaise with and encourage existing national chapters and help establish new ones and help build up IAH membership throughout their region. Further details of the various posts on Council can be obtained from jchilton@iah.org, and we will ensure the information is available soon on the IAH website. Nominations are particularly welcome from our national chapters, and we are very keen to encourage a better age and gender balance on Council.

All of the posts on the present Council are up for election. In line with the rules of the Association, the following are not eligible for re-election in their current posts. Willi Struckmeier has served the one term permitted and he succeeds Stephen Foster on Council as Past President. Segun Adelana (Vice President, Sub-Saharan Africa), Ian Acworth (Australasia and the Pacific) and Dr S N Rai (Asia) have all served two full terms in their present posts.

The election timetable agreed at the Council meeting in Pretoria is that nominations will open from 1 January 2012 and close on 30 April 2012. Nominations will be published on 31 May and election papers will be distributed by email and mail on 1 July. Postal voting will close on 1 September and electronic voting will be open until the day of the General Meeting, whose precise timing during the congress (17 to 21 September) will be advised in due course. Electronic voting will follow the same system used in 2004 and 2008, details of which will be advised in a later newsletter and with the voting forms.

Nominations should be sent to the IAH President Willi Struckmeier by 30 April 2012 at w.struckmeier@bgr.de, BGR, Stilleweg 2, D-30655, Hanover, Germany and copied also to the IAH Secretariat by emailing jchilton@iah.org. A nomination should contain a biography of the candidate and a letter from the candidate confirming his or her willingness to stand for election. Candidates will be required to formally acknowledge the guidelines of conduct before being accepted on to the voting list.

JOHN CHILTON, SECRETARIAT

Further info: jchilton@iah.org; <http://www.iah.org>

Nominations to: IAH President Willi Struckmeier by 30 April 2012 at w.struckmeier@bgr.de, BGR, Stilleweg 2, D-30655, Hanover, Germany and copied also to the IAH Secretariat by emailing jchilton@iah.org