

## **IAH COMMISSION ON MANAGEMENT OF AQUIFER RECHARGE Annual Report 2003**

Chair: Peter Dillon (Aus) Vice Chair: Ian Gale (UK)

Working Groups and their leaders: Managing Aquifer Recharge Brochure - Ian Gale; Training -David Pyne (USA); MAR Inventory – Albert Tuinhof (NL); MAR Regulations – Theo Olsthoorn (NL); ISMAR5 Symposium – Martin Jekel, Stephanie Rinck-Pfeiffer, Birgit Fritz (Germany); ISMAR6 Symposium - Doug Bartlett, Herman Bouwer (USA)

**AIMS:** "IAH-MAR aims to expand water resources and improve water quality in ways that are appropriate, environmentally sustainable, technically viable, economical, and socially desirable. It will do this by encouraging development and adoption of improved practices for management of aquifer recharge. This will be achieved by increasing awareness of MAR among IAH members, related professions and the community, by facilitating international exchange of information between members (e.g. via a web page and an email list), by disseminating results of research and practical experience (e.g. via conferences and reference database), and by undertaking joint projects and activities identified as important by its members."

### **ACTIVITIES IN 2003:**

The Commission has had a year of slow but steady advances. Highlights include IAH Netherlands National Committee publishing proceedings of the conference "Recharge Enhancement and Subsurface Water Storage", 18-19 December 2002 in the Netherlands in form of a booklet, edited by Albert Tuinhof and Jan Piet Heederick. The publication includes status reports on MAR for various countries, and is downloadable from the IAH-MAR web page, [www.iah.org/recharge](http://www.iah.org/recharge). This web site has been re-designed and updated with thanks to Ilka Neumann (BGS, UK). There are more than 500 abstracts on the web-searchable reference data base. The number of subscribers on the IAH-MAR email list has remained stable at 201. We gratefully acknowledge Glenys Jackson (CGS/Flinders Uni, Aus) for managing the list.

Ian Gale Chaired the 2<sup>nd</sup> Plenary Session of IAH-MAR, 16 September 2003 in Prague, Czech Republic. This was attended by 18 participants from 12 countries. It was resolved to work with Urban Groundwater Commission on the issue of recharge with urban stormwater. Notes of the meeting are on the web site: <http://www.iah.org/recharge/pdf/IAH-MAR%20plenary%20Prague.pdf>

A two page flyer on 'Managing aquifer recharge for sustainable groundwater use' was produced for 3<sup>rd</sup> World Water Forum Kyoto, March 2003 and is mounted on the web site: <http://www.iah.org/recharge/pdf/ARbriefing.pdf> IAH-MAR also contributed to an IAH presentation at WWF3 and an IAH groundwater slide set, compiled by Ken Howard, Chair of Commission on Urban Groundwater. The Commission was represented at WWF3 by Peter Dillon thanks to support from UNESCO.

IAH-MAR endorsed and members participated in an IAHS /UNESCO/ IAH\_MAR Conference (HS04) organized by Joop Steenvoorden (NL) entitled 'International Symposium on Methodologies for risk assessment of wastewater reuse on groundwater quality', Sapporo, Japan, 7-8 July 2003. Although attendance was affected by SARS virus concerns, the 30 attendees found the conference beneficial and an IAHS red book publication is to come from this meeting. A conference report is at <http://www.cig.ensmp.fr/~iahs/>

We also established links with the National Water Research Institute (USA) who ran a successful symposium Second International Riverbank Filtration Conference (RBF2) in September 16-19, 2003, Cincinnati, Ohio. This had over 40 speakers and reviewed experiences of water utilities and researchers covering: riverbed dynamics, fate of pathogens and chemicals, operational experience, and public policy. NWRI were invited to participate as co-endorsers of ISMAR5, Berlin 12-17 June, with a view to combining conference series, and already NWRI are actively promoting ISMAR5. In addition IAH-MAR also played a role in the 11th Biennial Symposium on Groundwater Recharge, Tempe, Arizona, June 5-7, 2003. Following the Plenary at ISAR4, and discussions in Tempe, the organisers of this conference have submitted a proposal to run ISMAR6 in 2007 and a working group has formed.

At a Plenary at ISAR4, Sept 2002, the Commission established 4 working groups. One, led by Ian Gale is developing a booklet on Strategies for Recharge Enhancement in Arid and Semi Arid Areas, as a joint venture with UNESCO. A first draft has been completed and is undergoing editing and review prior to publication, and was presented in the Prague Plenary for comment.

The Training Working Group, led by David Pyne, has attempted to establish at UNESCO request a workshop on Recharge Management in South Africa. This is still under discussion by local committee headed by Prof Yongxin Xu (UNESCO Chair), and is likely to take place in 2005. A JIHP (UNESCO/IAEA) course on isotopes applications in AR will start in Egypt on Monday 9th Feb. Koos Groen and Albert Tuinhof of Acacia Institute/FU Amsterdam are giving the course. As part of their contract with IAEA/UNESCO, they are producing course materials that will also come out as a publication later. David Pyne arranged for IAH-MAR involvement in an American Groundwater Trust Workshop on Aquifer Storage Recovery in Tampa, 15-16 April 2004, and IAH members will receive a US\$40 discount on registration. A short course is being considered for Zacatecas, Mexico Oct 04, and is in discussion between David Pyne and IAH Congress organizers.

Albert Tuinhof leads the working group on Inventory of MAR, and applied for and recently won a Netherlands Government Grant to allow completion of this inventory and web publication on the IAH-MAR web site. While most of the data collection is complete, it is expected that this work will be undertaken in April 2004.

The working group on MAR regulations aims to add web site references to state and national guidelines and regulations to the IAH-MAR web site but work on this initial activity has not yet commenced.

**SUMMARY:** We are making progress towards our aims but lack of resources particularly for developing publications and training programs means that progress is opportunistic, and consequently has been faster in developed countries than in developing countries where the needs are greater but resources are less. Having a plan has been useful in focusing efforts and IAH-MAR has a major role to play in assisting UNESCO with IHP 6, especially in arid and semi-arid regions. However few of the 16 activities proposed for 2003 in last year's annual report have actually been completed, due to the lack of time and resources available. There are some good signs for 2004, with Netherlands government/Acacia support, and we look forward to achieving more in 2004. Our 3rd plenary session will be held in Zacatecas, Oct 2004.