

**International Association of Hydrogeologists**  
the World-wide Groundwater Organisation

# ANNUAL REPORT 2014



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



# IAH Annual Report

Taking account of the favourable comments we received on last year's IAH annual report, we have adopted a similar format for this summary of 2014's activities and finances. We have again made considerable efforts to ensure the report is readable and well-illustrated and presents the information in an accessible way by picking out key statistics and figures. This applies particularly to the ways we obtain our funds and the ways in which the different parts of IAH use them.

This year we have also tried throughout the report to relate the activities of our chapters, publications team, commissions and networks and Council and Executive to the overall scientific, educational and charitable objectives of the Association. We have also provided links so that further details can be sought by those who are interested. We hope you like this approach, and we would be very happy to receive feedback.

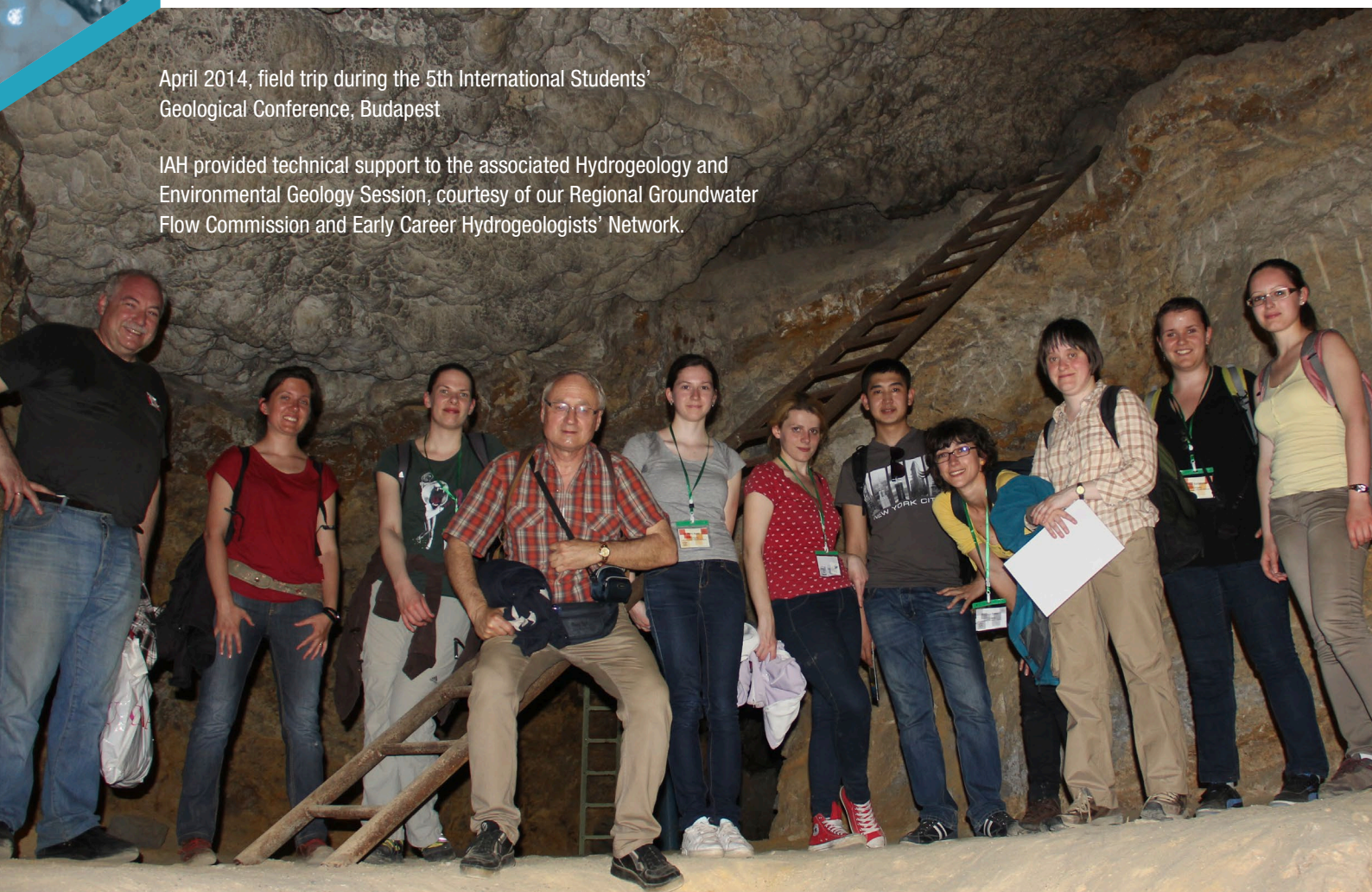
**Questions or comments?**

**Email [info@iah.org](mailto:info@iah.org)**

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April 2014, field trip during the 5th International Students' Geological Conference, Budapest

IAH provided technical support to the associated Hydrogeology and Environmental Geology Session, courtesy of our Regional Groundwater Flow Commission and Early Career Hydrogeologists' Network.





## President's message

Thanks to Council, the Secretariat, and hundreds of members who work tirelessly at regional, national and local levels, 2014 was a very good year for the Association. We have managed to improve our level of service to members and yet remain in good financial health. The majority of our Commissions and Networks are thriving, and Hydrogeology Journal continues its ascent, showing a steady increase in impact factor and introducing an “open access” option for the first time, with significant discounts for members who plan to use this option.

In terms of networking opportunities, IAH members have never been better served with meetings, workshops and conferences at all levels – local, national and international. Particular highlights for me this year included the outstanding “V Congreso Colombiano de Hidrogeología” organised in Medellin by the Colombian National Chapter of IAH, the excellent field excursions arranged by our Moroccan colleagues after the IAH Congress in Marrakech, and an international conference on water security in arid areas held in Xi'an China where I spent a memorable time with an enthusiastic and capable group of early career hydrogeologists. I also very much enjoyed my visit to the Geological Society of America conference in Vancouver where, in addition to attending several excellent IAH-sponsored sessions, I had ample opportunity to meet members affiliated with both the Canadian and US National Chapters of IAH.

Life, sadly, is not all social networking and field trips. Behind the scenes, IAH Council and Executive worked closely with the Secretariat during the year to deal with a wide range of important IAH business. For example, during 2014 we initiated a review of our Articles and Rules, an arduous task necessitated by changes that have taken place over the years in the ways that IAH works. Work also began on mid-term reviews of many of our Networks and Commissions, a process introduced during their reform to allow us to monitor their activity and progress. In this way we can ensure that the needs of members, the broader groundwater community and the general public are adequately met. All this work continues into 2015.

One goal that continued to elude us during 2014 has been a significant growth in income, something that would allow us to accelerate the implementation of our ambitious forward look programme. While the stagnant global economy has not helped this cause, there is no question that there are opportunities to increase income through membership growth in several global constituencies including south-east Asia. To this end IAH worked hard with colleagues in Korea during the year to plan a regional IAH meeting to be held on Jeju Island during the spring of 2015 as a possible springboard to a full IAH Congress in Korea before the end of the decade. As I indicated in my previous report, membership growth remains an important priority for the current Council and we will continue to work with national chapters and Regional Vice Presidents towards this goal.

### Professor Ken Howard

IAH President

**below left: Ken Howard (left) and Mineral and Thermal Waters Commission chair Jim Lamoreaux on the Marrakech Congress field trip**

**below: Ken Howard (right) with early career hydrogeologists in Colombia**



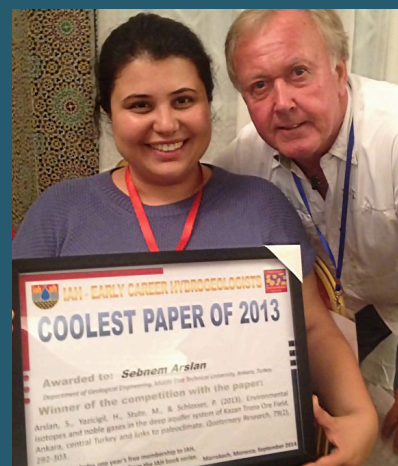




September 2014, the 41st IAH congress was successfully held in Marrakech, Morocco

Holding the congress in North Africa was not without its risks, but even with a few bumps along the way, participants dispersed far and wide to their homes with fond memories of old friends met and new friendships made

Sebnem Arslan, winner of the inaugural "Coolest Paper" Award organised by our Early Career Hydrogeologists' Network, with IAH President Ken Howard







During 2014 IAH, with its two publishers, introduced an “open choice” submission scheme for the Hydrogeology Journal and simplified the IAH book ordering system



2014 saw IAH increase its presence on social media by joining Facebook. By far the greatest proportion of “likes” comes from individuals based in India



#### World Water Day

IAH attended a collaborative meeting in London and reflected upon the year's World Water Day theme, considering how it might concern those in groundwater related professions

#### June 2014, Hydrogeology Journal editors meet in Copenhagen

Left to right: Jimmy Jiao, Suzanne Schemann, Vincent Post, Maria Schafmeister, Sue Duncan, Liz Screamton and Cliff Voss





## Enhancing education and academic development

Many of the core activities of a professional association are directed towards the education and academic development of its members, the broader groundwater community and the general public. For IAH, as you will read in this report, this has included our congresses, books and journal publications and the work of our commissions, together with events and activities organised by our national chapters. The Association's Forward Look in 2010 provided an opportunity to review IAH's educational activities, and our subsequently developed website gives us a platform to develop some of these in new ways.

As part of this review process, a Working Group was set up in 2013 to undertake a feasibility study of options for provision of training courses and materials. The group (in alphabetical order) consisted of Bruce Misstear, Ireland (Chair; IAH Executive); Daniel Nkhuwa, Zambia (African Groundwater Network); Suzanne Pierce (US National Chapter); Viviana Re, Italy (Early Career Hydrogeologists' Network); Andrew Stone, USA (Commission on Groundwater Outreach); and Andrzej Witkowski (Polish National Chapter).

The group's activities included a survey of on-line training resources and web-based educational materials, and seeking member's views via the newsletter and an on-line survey in April 2014. A report on the group's work presented to IAH Council in Marrakech included the following recommendations:

- creating a separate 'Education and Training' banner on the IAH website home page;
- preparing a list of hydrogeology degree courses available around the world, with links to course information from the IAH website;
- listing short courses, field courses and webinars;
- developing an IAH YouTube channel;
- linking with existing webinar providers to produce IAH-branded talks;
- compiling an international panel of experts willing to give their time to contribute to short courses organised by national chapters;
- preparing IAH-branded educational materials;
- developing a series of short thematic papers on key strategic topics to increase awareness of groundwater issues.

IAH is grateful to the Working Group for its productive work and comprehensive report, and has accepted the recommendations, some of which are already being worked on.



An IAH youtube channel is definitely a good idea. I can imagine all sorts of clips from 'how to drill a well' to 'calibration of a groundwater model'...



Perhaps you can record presentations from related conferences and upload them (would be students and young professionals without funding to attend).



A calendar of training courses/ opportunities on your website would be good. Even a list of university courses available for postgraduates...

# Scientific publications

An important objective of a professional association such as IAH is to provide opportunities for its members and supporters to publish their scientific work. IAH meets this objective by publishing our Hydrogeology Journal and two book series, both of which are important member benefits.

The journal continues to grow in stature as shown by the steady rise in impact factor. Of course, the conventional impact factor is just one measure of the health of a journal; information on alternative metrics, some of which have been developed by IAH's publisher, Springer, can be found at <https://iah.org/publications>.

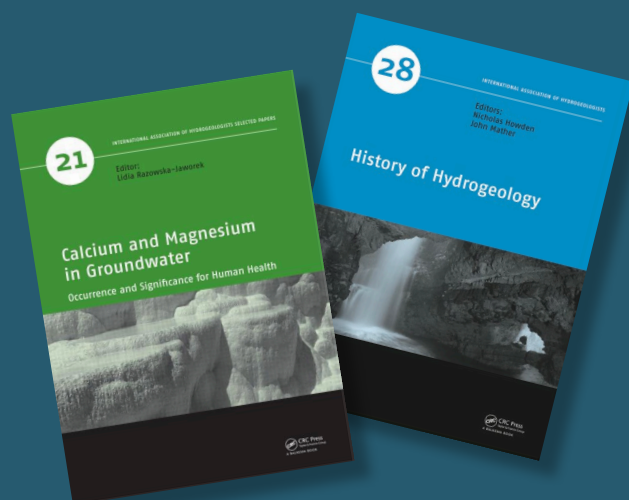
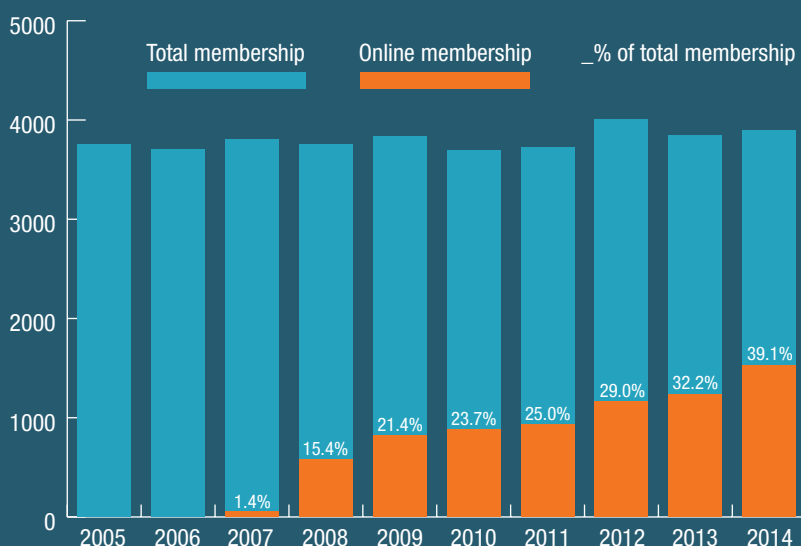
Regular discussion with Springer helps our journal team keep a close eye on the changing world of scientific publishing. Two important global trends have a direct bearing on the Hydrogeology Journal and have implications for our publication policy and business model. Firstly, the move towards online rather than print publication has seen a gradual rise in the proportion of IAH member who opt to receive our journal online, with more of our newer members choosing this option from the time they join. Secondly, following lengthy discussion, an 'open choice' option for authors wishing to publish in the journal under open access arrangements was introduced from September 2014, with a much reduced submission fee for IAH members. The journal team and IAH Executive will monitor the uptake of this option. At the present time there are no plans, nor any pressure from our publisher, to move either to fully online or fully open access for the Hydrogeology Journal.

**Hydrogeology Journal, Impact Factor Increase**

YEAR	IMPACT FACTOR	CITATIONS
2014	1.966	3895
2013	1.712	3388
2012	1.675	2737

Two books were published in 2014 in our Green Book series of Special Publications. SP 20 on 'Groundwater in Hard Rocks' continues a successful theme for the Association's long standing Commission of the same name, collecting together papers from the 2012 conference in Prague. SP 21 deals with the occurrence of calcium and magnesium in groundwater and their significance for human health. For the Blue Book series, the recent ICH 27 on climate change on groundwater continues to sell very well, and ICH 28 dedicated to the history of hydrogeology was published during the year.

The Association is very grateful to the Journal editorial team and books editor for all their hard work in maintaining such a high standard, and enabling such a broad geographical spread of authors and subject matter to reach a wide audience through our scientific publications.



## Commissions and networks

Our Commissions and Networks provide a solid framework within which IAH can meet its objectives of contributing to scientific and technical developments in groundwater. This can be achieved by the Commissions and Networks independently or by working together, or by collaboration with our partners.

In April 2014, the 5th International Student's Geological Conference was held at the Faculty of Science, Eötvös Loránd University, Budapest. A Hydrogeology and Environmental Geology Session was included for the first time, supported technically by IAH's Regional Groundwater Flow Commission and Early Career Hydrogeologists' Network. 230 students and young researchers from three continents and 20 countries participated in the conference, with 13 presentations in the hydrogeology session filling the auditorium.

An international conference 'Karst Without Boundaries' took place in June 2014 at Trebinje, Bosnia & Herzegovina in the heart of the Dinaric Karst Region, organised by the DIKTAS GEF Project partners, supported by the IAH Karst Commission, UNESCO-IHP and IGRAC. The University of Belgrade and the Hydropower System Trebišnjica were the hosts and regional co-organisers. The conference included technical sessions with more than 100 poster and oral presentations, field visits to sites in Bosnia & Herzegovina, Croatia and Montenegro and a summer school and field seminar on the characterisation of karst aquifers.

The IAH Congress each September provides an excellent opportunity for Commissions and Networks to bring their activities to the attention of IAH members and other congress

### FINANCE FACT

£700 was provided from our Education and Development Fund to support the Hydrogeology Session at the Student Geological Conference.

Find out more <http://iah.org>



### FINANCE FACT

£7750 was provided from our Education and Development Fund to support meetings of a team from the IAH Karst Commission in the preparation of a karst map of the world.

Find out more <http://iah.org>



participants. In Marrakech, our groups on Managed Aquifer Recharge, Coastal Aquifer Dynamics and Coastal Zone Management, Regional Groundwater Flow and Groundwater and Climate Change held their annual business meetings, and some convened and co-chaired sessions during the congress. Much of the focus of the joint meeting between the Groundwater and Climate Change Commission and the UNESCO-IHP GRAPHIC programme was on improved access to information by making better combined use of the two group's websites and networks of colleagues. A new IAH Commission on Transboundary Aquifers held its initial meeting in Marrakech and will provide ample opportunities for collaboration with existing and new partners.

Our Commissions and Networks also publish the technical outputs of their meetings. In 2014 the book *Thermal and Mineral Waters: Origins, Properties and Applications* was published by Springer and edited by Thermal and Mineral Waters Commission members Werner Balderer, Adam Porowski and Jim Lamoreaux and our late colleague Hussein Idris, who organized the commission's field trip to the Western Desert of Egypt in 2009.

Find out more

<https://iah.org/groups/commissions-networks>



# Time capsule

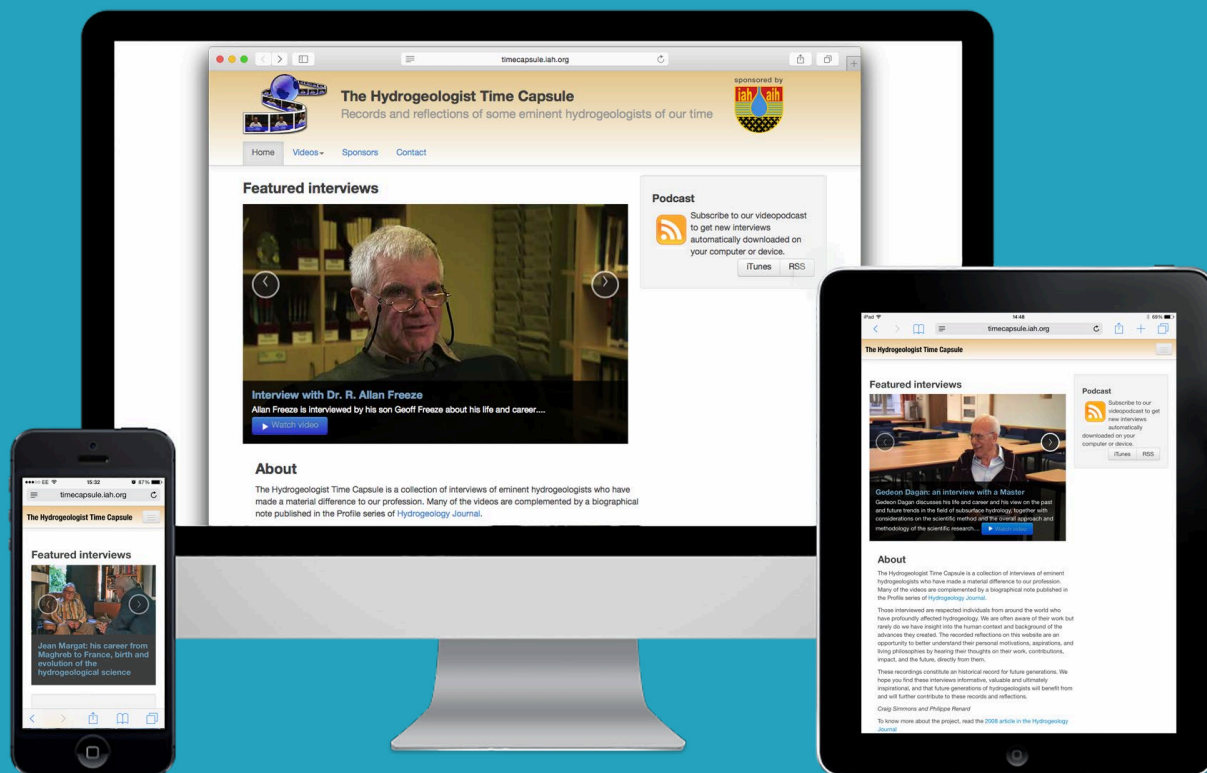
The IAH Time Capsule provides us with an opportunity to look back over the development of hydrogeological science. The Time Capsule is a collection of interviews of eminent hydrogeologists who have made a material difference to our profession of hydrogeology. We are often aware of their work but rarely do we have insight into the human context of the advances they created. The recorded reflections provide an opportunity to understand their personal motivations, aspirations and philosophies by hearing their thoughts on their work, contributions, impact, and the future, directly from them. Future generations of hydrogeologists will benefit from and further contribute to these records and reflections.

During 2014 four videos were finalized and published, all from two of our most eminent French colleagues. Three conversations with Ghislain de Marsily covered separate aspects of his work and the fourth is a long conversation between Jean Margat and a group of his French colleagues covering his career from the birth of hydrogeological mapping in the Maghreb. We hope you find these interviews informative, valuable and ultimately inspirational. IAH members are very grateful for the hard work of Philippe Renard and Craig Simmons on this project over many years.

## FINANCE FACT

In 2014 the Time Capsule Project was supported with £2000 from central IAH Funds.

Find out more <http://iah.org>

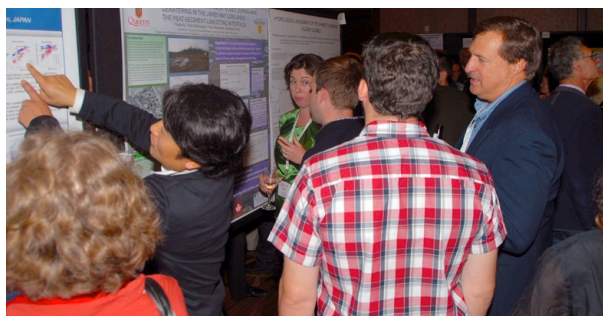




## Membership

IAH has always prided itself on its broad global reach, with members in 147 countries spread through all regions of the world. This makes us a truly international association, enabling us to support those working in groundwater wherever they are and strengthening our ability to promote the wise use and protection of groundwater resources.

Our total membership has been stable in recent years, albeit with some regional variations. One of the principal ways we seek widespread membership is by our differential fee framework for high, middle and low income countries; the low income fees are half of the high income fee rate.



We have to work hard to maintain this position. One means to secure the future strength and success of our association depends on encouraging students and young professionals to join IAH and to participate in our activities in the years ahead. Thus in 2014, after due consideration, Council agreed to offer greatly reduced fees for students which will take effect from 2015. Students can become members of IAH for as little as 11 euros and ranging up to no more than 29 euros, depending on the country income status and which journal option is taken. Over time IAH will monitor the impact of the lower fee rates.

Find out more

<https://iah.org/join-us>

## Supporting by sponsorship

In some regions hydrogeologists or others working in groundwater are prevented from joining IAH due to economic or practical reasons. For some, this might be because our membership fee is high in relation to their income; others encounter problems of access to convertible currency or payment facilities. To help such colleagues, the association has for many years operated a sponsorship scheme which is supported by central funds, by national chapters and by individual members paying the fee for sponsored members. We are pleased to confirm that the number of sponsored members remains steady; 265 at the end of 2014. We are always open to further applications for sponsorship – and welcome donations to help the scheme's future success.

Find out more:

<https://iah.org/join-us/sponsorship-scheme>

### Sponsored members per country

1	2–5	6–10
Afghanistan	Algeria (2)	Bolivia (6)
Angola	Bangladesh (2)	Germany (6)
Argentina	Botswana (3)	Ghana (7)
Bulgaria	Cameroon (2)	India (6)
Burkina Faso	Colombia (2)	Iran (7)
Burundi	Cote d'Ivoire (2)	South Africa (6)
Canada	Cuba (5)	
Costa Rica	Egypt (5)	
Dominican Republic	Georgia (2)	
Iraq	Honduras (2)	<b>10+</b>
Kiribati, Rep of	Indonesia (3)	El Salvador (15)
Lao, People's	Kenya (3)	Ethiopia (15)
Democratic Republic	Lithuania (2)	Nepal (11)
Lebanon	Mexico (3)	Tanzania (12)
Libya	Nicaragua (5)	Uganda (18)
Mauritania, R I	P.R. China (4)	
Mongolia	Pakistan (3)	
Morocco	Philippines (2)	
Mozambique	Russia (5)	
Myanmar	Senegal (2)	<b>20+</b>
Niger	Sri Lanka (5)	Nigeria (27)
Peru	Sudan (2)	
Rwanda	Tunisia (2)	
Saudi Arabia	Yemen (3)	
Solomon Islands	Zambia (2)	
Thailand	Zimbabwe (2)	
U.S.A.		
United Kingdom		
Venezuela		



## National chapters

Our national chapters continue to help us provide professional, scientific and social benefits to our members. One key approach is through the chapters convening national, regional or international meetings; independently and/or in collaboration with others.

In June 2014 IAH's British chapter supported Hydrogeology Without Borders UK (HWB-UK) to enable a one day meeting on 'Hydrogeology and WASH: What can hydrogeologists contribute to safe water supply and poverty reduction?' The meeting provided a forum for knowledge exchange between funding agencies and NGOs actively involved in WASH projects and the groundwater community. Some 90 participants contributed to the discussions and the conference certainly helped to achieve better understanding between the groundwater and NGO communities and identified ways in which the two sectors could work together more effectively.

This was a good example of the type of collaboration we wish to encourage. Although the initiative for the meeting first came from HWB-UK, IAH immediately stepped in to help support, promote and organise. IAH's British National Chapter supported it financially from its own local funds, and the Hydrogeological Group of the Geological Society of London provided the venue.

During October 2014 the tenth International Hydrogeological Congress of Greece was held successfully in Thessaloniki. This was organised by the Hellenic Committee of Hydrogeology (the IAH Chapter in Greece), with the conference focussing particularly on groundwater and dependent ecosystems. Colleagues from 18 countries participated and more than a quarter of the participants were students, positively indicating the international and educational character of the conference. Around 100 papers were published by the Hellenic Committee in the two volumes of conference proceedings.

We are also pleased to report that IAH's National Chapters are increasingly taking the opportunity to meet up at conferences. A lively and well attended meeting of colleagues from 20 national chapters took place in Marrakech, and six IAH chapters met at the Karst conference in Trebinje. The more regularly chapters can meet together to exchange experiences, the more they will be able to support each other and to develop joint activities.

### Find out more

<https://iah.org/groups/national-chapters>

Participants at the UK meeting work together to solve a groundwater challenge





## Promoting the wise use of groundwater

The reports of the HWB WASH meeting and the International Student Conference illustrate how developing new partnerships also enables us to provide IAH support, helping us meet our educational objectives and charitable obligations. Partnerships with fellow members of UN Water and with new organisations such as the International Energy Agency help us to reach audiences we might not otherwise encounter.

### Groundwater governance project

For the past three years IAH has partnered FAO, UNESCO and the World Bank in a GEF-funded project on groundwater governance. The project's overall objective is to embed processes of improved groundwater governance to halt and reverse current trends of resource depletion and degradation and lead to positive environmental, social and economic outcomes. The main outputs of the project, the Global Diagnostic, the Vision and the Framework for Action were drafted by the project partners during the year. The first of these provides the knowledge base for the present state of the governance of groundwater and aquifers, highlighting positive examples which might be more broadly taken up. The short Vision document draws on the Diagnostic to set out the features which distinguish governance of groundwater from broader water governance, and the most important underlying guiding principles for improved governance of groundwater. Finally, the Framework for Action draws on both documents to provide a structured outline of the actions needed to achieve the Vision. The project partners have pledged to use their best efforts to promote improved groundwater governance through their own activities and networks.

### Indian workshop on groundwater governance

Governing and sustainably managing the groundwater resources on which the country is so heavily dependent is clearly a crucial issue for India. Partly prompted by IAH's participation in the GEF groundwater governance project, the IAH Indian National Chapter arranged a one day workshop in Delhi in August 2014 on the subject which was attended by over 100 scientists, practitioners, policy makers and NGO representatives. IAH Secretary General Shammy Puri, representing the GEF project, was the chief guest at the workshop. Twenty presentations addressed the challenges of improving governance and developing and implementing regulations to manage groundwater use, generating lively discussions. One important outcome of these discussions was the adoption of eleven key recommendations from the workshop firstly to the government, secondly to the IAH National Chapter and thirdly to practitioners with responsibility for groundwater management. Discussion also focussed on a 'Model Bill for the Conservation, Protection and Regulation of Groundwater' which has been drafted but is yet to be adopted. The Indian National Chapter of IAH has pledged to promote its adoption and work towards building capacity to implement its legal provisions once adopted.



**Groundwater Governance**  
A Global Framework for Action

### Find out more

Groundwater Governance Project outputs  
<http://www.groundwatergovernance.org/>

## FINANCE FACT

IAH provided partial funding for the India workshop of £715. This came from the Association's share of the operating surplus from the 2009 Hyderabad Symposium which is being held in a dedicated fund to support activities in Asia.



Find out more <http://iah.org>



Promoting the wise use of groundwater and the protection of aquifers is a vital part of our mission. The Association strives to achieve this with its own actions and through partnerships, and through both national and international activities.

### Second Unconventional Gas Forum

IAH was represented at the 2nd Unconventional Gas Forum of the International Energy Agency in Calgary in March by Grant Ferguson, Chair of our Canadian National Chapter. More than 100 officials from public and private sectors gathered to share best practices for minimising water use and protecting water resources from the risk of contamination during unconventional gas production. Grant notes that: "There seems to be consensus on many of the main issues associated with unconventional oil and gas. There was not much talk about the composition of so-called "frack fluids" and few people brought up fracture propagation from deep shales to shallow aquifers as an issue. Much of the discussion focused on wastewater management, well integrity and baseline groundwater quality surveys." He adds that "scientific understanding of the potential for contamination is critical in convincing the public and in translating experience from areas with decades of oil and gas development to emerging areas".

### Ho Chi Minh City, Vietnam: 2nd Mekong River Commission Summit

At the 2nd Mekong River Commission Summit in Ho Chi Minh City in April 2014, "Cooperation for water, energy and food security in transboundary basins under changing climate", IAH was represented by Gabriel de los Cobos, Head of Hydrology, State of Geneva and responsible for the operation of the Genovese transboundary aquifer scheme. [Travel and all expenses covered by the World Water Council.] In his report of the meeting, Gabriel noted:

"The discussion focused on a major statement that groundwater is a "hidden treasure". The extension of aquifers is determined by geology and hydrogeology and not by national boundaries; hence it is only natural that transboundary aquifers are an important component of groundwater systems among countries. However, the law and institutions are oriented mainly towards surface water use and management. It is necessary to recall that groundwater constitutes the most important and dependable fresh water source in many parts of the world. Due to increasing climate variability, growing domestic and industrial water demand, land use change and targeting food security, the demand for groundwater is amplified as a generally reliable resource with a significant inter-seasonal storage capacity."

### 11th Kovacs Colloquium

The 11th Kovacs Colloquium was held at UNESCO Headquarters in Paris in June. It honours George Kovacs, an eminent hydrologist who was Chairman of the Intergovernmental Panel of the International Hydrological Programme (IHP) and Secretary General and President of the International Association of Hydrological Sciences (IAHS). The 2014 Colloquium's theme was "Hydrologic Sciences and Water Security: Past, Present and Future". IAH was represented in the final round table by Vice President for Science and Programme Coordination António Chambel with Director of the Division of Water Sciences and Secretary of the IHP, Blanca Jiménez-Cisneros, Ania Grobicki of the Global Water Partnership and Alberto Montanari of IAHS. The colloquium served as an introduction to the 21st session of the Intergovernmental Panel of the IHP. Speakers and participants addressed issues connecting water, land, energy and the environment, as well as issues related to education in the field of Earth and environmental sciences, with perspectives on past, present and future in a rapidly changing world in which knowledge also evolves at an extremely fast pace.

**The Kovacs Symposium is an example of IAH collaboration with two long established partners, UNESCO and IAHS.**

Blanca Jiménez-Cisneros, Director of the Division of Water Sciences and Secretary of the International Hydrological Programme (IHP) of UNESCO and António Chambel.





## Early Career Hydrogeologists' Network

The Early Career Hydrogeologists' Network (ECHN) continues to grow and we can readily see the fruits of our encouragement and support of young professionals. IAH's younger members are becoming more involved in the association and contribute to the success of many of our activities.

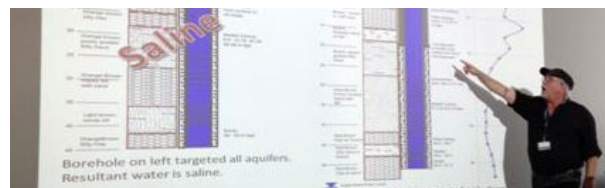
During the 2014 Marrakech Congress ECHN, in collaboration with Hydrogeologists without Borders-UK (HWB), encouraged early career hydrogeologists to become Hydro Heroes by proposing a solution for a real hydrogeological issue in Myanmar.

This proved to be an interesting and fun exercise and was well appreciated by the participants. ECHN also organized a lunch side session to provide early career delegates with useful tips for their career development. Delegates listened to Bruce Misstear (IAH Vice President – Finance and Membership) on 'Being effectively succinct: Tips on presenting your research in 15 minutes or less.'

As the network grows, national ECHN groups are being established. Groups in Western Australia and South Africa set up in 2013 were joined in 2014 by one for the UK.

Find out more

<http://echn.iah.org>



## Awards

The Association has traditionally rewarded experienced professionals who have made exceptional contributions to the advancement of groundwater science and to the growth of IAH. More recently steps have been taken to instigate awards that are intended to support and encourage those at earlier stages of their professional careers.

IAH's Karst Commission led the way with its Young Researchers Award. These are presented each year at its general meeting and karst conference, and the 2014 recipients were Milan Radulovic from Montenegro, Sebastian Schmidt (Germany) and Adam Tóth (Hungary). We have sometimes presented best poster awards at congresses and more recently the ECHN has joined up with congress organisers to establish regular early career poster prizes. The 2014 recipients were Kelly Swana of Stellenbosch University, South Africa and Abdelaziz Khomsi of Université Ibn Tofail, Kénitra, Morocco.

This year ECHN also established a 'Coolest paper of the year' award with the objective of encouraging younger professionals both to read new papers by their peers and to publish the results of their own research. The first winner, Sebnem Arslan of the Middle East Technical University in Ankara, Turkey, was presented with the award at the IAH General Assembly in Marrakech for her study of environmental isotopes and noble gases in the deep aquifer system of the Kazan Trona ore field in central Turkey and the links to palaeoclimate.



# Income diversification

IAH's income derives largely from individual and corporate membership fees, with lesser amounts from publishing contracts and royalties, supplemented by small amounts from donations and investments and sometimes from the operating surplus of IAH congresses.

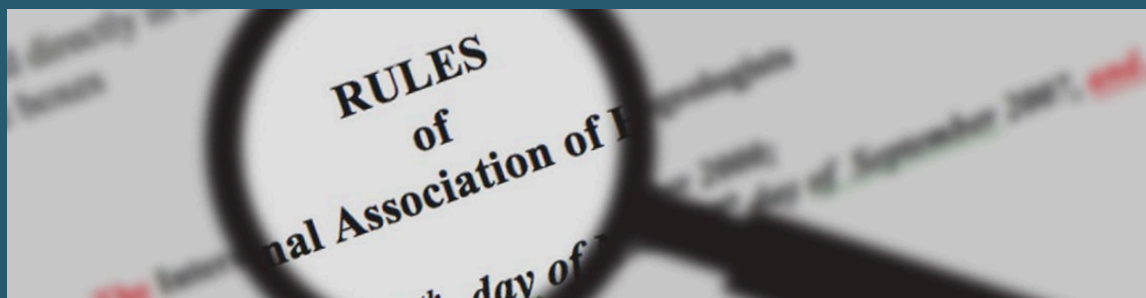
The members of IAH Council, as trustees and directors of IAH, have a governance and management responsibility to consider the security of these sources of income. Moreover, we need to be aware of the challenges to our present business model that could be posed, among other things, by the Open Access and Open Choice publishing developments referred to elsewhere in this report. All charitable organisations must explore other options and give serious thought to income diversification. For a professional association such as IAH, this could mean our congresses becoming profit-earning activities from the outset and organising other conferences on a commercial basis. Other possibilities include undertaking paid consultancy work,

preparing educational products for sale, taking paid-for job postings or equipment and services advertising on the website, applying for grants, or encouraging endowments from members. Some of these are far from our traditional approaches, and most require careful investigation before they could be adopted. A first step taken during 2014 has been to look back at the stability of our income and expenditure over the last few years and to look forward at possible trends over the next five to ten years.

## Reviewing IAH's rules

IAH is governed by its Memorandum and Articles of Association and Rules. The Articles can only be changed by a vote of the full membership, which is not something we would wish to embark on unless it was really necessary. The Rules support the Articles, providing a more detailed framework for the management of the Association, and changes can be approved by Council and the Annual General Meeting. As IAH's programme of activities develops and as the means of operating and communicating change, actual practice may diverge from that envisaged by the Rules.

The Rules were last reviewed and revised in 2007 and it had become apparent that they would need to be updated to take account of the new way we structure and operate our Commissions and Networks since they were reviewed in 2011. This also applies to the operation of our membership and National Chapters, and with the way we communicate in the digital age. A comprehensive review and consultation process is underway to correct these inconsistencies and to provide a robust set of Rules to serve the Association and its members.





## Overall financial performance

The Association had an expensive year in 2013, producing an overall deficit of £70,000. This high level of expenditure was planned and budgeted for by the Executive and Trustees, and reflected a combination of increased spending on charitable and educational activities, investment in the new website and the cost of an extra meeting of the new IAH Council in June 2013.

2014 saw our intended return to a more balanced financial outcome, as shown in the accompanying summary accounts. The overall operating deficit of £8250 was greatly reduced from the previous year and was well below the budget deficit set at £45,000. This leaves us with reserves of £137,000 in our bank accounts, invested in a building society charity account.

Fluctuating values of sterling, euro and dollar currencies resulting from global economic and financial crises have always presented challenges for the Association both in its financial planning and reporting and in day to day operations. In 2014, the substantial fall in value of the euro during the second half of the year in response to eurozone turmoil greatly complicates financial comparisons between years and with the budget set at the beginning of the year.

This is clearly illustrated for our biggest source of income from membership fees. Membership numbers increased slightly from 2013, and the associated income was up by €4500 but down by £10,000. This apparent contradiction reflects the different exchange rates applied during the year when income is received compared to the single rate used for the formal accounts presented here. Other sources of regular income were much as budgeted and similar to recent years, and the contribution of £5000 from the 2013 IAH Congress in Perth also helped to reduce the 2014 deficit.

Some of the currency fluctuations are beneficially offset by lower expenditure; our largest euro payment each year is to Springer for printing the Hydrogeology Journal. For 2014, this was £12,000 below the sterling budget and £7000 less than in 2013, helping to reduce the deficit.

As always, we have kept prudent eyes on our operating overheads. For 2014, both travel and staff costs have been kept well within budget, the latter being helped by time savings from the improved membership application associated with the new website and from the acquisition of more suitable and practical accounting software.

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### Read IAH's full accounts

<http://iah.org/about/reports/management>

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# Income trends

As a foundation for examining options for broadening the association's sources of income, we need to look back at trends in our income over recent years.

For ease of comparison and taking account of the remarks on currency fluctuations opposite, all figures are shown in euros. Membership fees are clearly our dominant source of income, coming from both individual and corporate members. The publisher's contract with Springer provides for the stipends for the four editors of the Hydrogeology Journal. Income from journal royalties has remained constant but book royalties have fallen over this period.

Donations comprise mainly contributions towards the sponsored membership scheme and the larger amount in 2013 included 4000 euros sponsorship from MW Global for the work of IAH's Karst Commission for which we are very grateful. We are now doing more to encourage members to donate to specific aspects of IAH's work at the time they renew their membership. Donated services comprising important contributions from employers or other organisations to Council and Executive travel that IAH would otherwise have needed to provide are not included here, but normally range from 15,000 to 20,000 euros each year.

Our commercial subsidiary Worldwide Groundwater Limited was used to facilitate financial management of the GEF Groundwater Governance Project, and the 13,100 euros in 2013 represents return to IAH of the operating surplus from participation in the project which can be used to help meet the association's technical and educational objectives.

External support for congress participation was last received in 2010 and 2011 and since then we have been able to provide some modest support for this from within our own funds. Congresses in Hyderabad (2009) and Niagara Falls (2012) provided substantial returns to IAH and those in Krakow (2010) and Perth (2013) more modest but still valuable amounts. As a consequence of falling interest rates following the 2008 financial crisis, investment income disappeared completely, but we are now receiving modest interest on part of our reserves.

Income Component	2009	2010	2011	2012	2013	2014
Individual membership	216,800	209,300	211,200	232,600	223,600	227,100
Corporate membership	17,000	17,600	18,400	22,000	19,900	21,200
Publisher's contract	30,000	30,000	30,000	30,000	30,000	30,000
Journal royalties	17,000	20,600	21,600	20,100	19,300	19,600
Book royalties	6600	5500	3800	3200	4700	3600
Donations	600	200	400	600	5800	2600
WWGW transfer – GEF project	-	-	-	-	13,100	-
Congress support, inc UNESCO	-	12,000	2700	-	-	-
Congress surplus returns	-	17,100	5000	-	17,400	6600
Investment	2900	100	-	1800	2000	2100
Other income	200	2000	100	600	200	600
Total income	291,100	314,400	293,200	310,900	336,000	313,400



# Statement of financial activities for the year ending 31 December 2014

Incoming Resources		£	£	EUR(€)	USD(\$)
Membership fees			192,417	247,641	299,901
Contract and subvention income			24,168	31,104	37,668
Investment income			855	1,100	1,333
Donations			21,794	28,049	33,968
Royalties			18,215	23,443	28,390
Other income			5,597	7,203	8,723
<b>Total resources received</b>			<b>263,046</b>	<b>338,540</b>	<b>409,983</b>
<b>Resources Expended</b>					
Member services	Salaries	19,016			
	Printing and publications	96,960			
	Other	15,586	131,562	169,320	205,053
Donations and grants payable			19,708	25,364	30,717
Support costs	Salaries	25,773			
	Travel and subsistence	53,680			
	Printing, stationery and database administration	11,465			
	Website development	3,761			
	Other	4,407	99,086	127,524	154,435
Management and administration of the charity	Salaries	15,568			
	Strategic review and training	445			
	Accountancy fee	1,018			
	Other	0	17,041	21,932	26,560
Finance costs (bank charges) and depreciation			3,916	5,040	6,103
<b>Total resources expended</b>			<b>271,313</b>	<b>349,180</b>	<b>422,868</b>
<b>Net Income / Expenditure</b>			<b>(8,267)</b>	<b>(10,640)</b>	<b>(12,885)</b>
Net foreign exchange gains / (losses)			(5,978)	(7,694)	(9,317)
<b>Net Incoming resources</b>			<b>(14,245)</b>	<b>(18,333)</b>	<b>(22,202)</b>
<b>Balance brought forward at 1 January 2014</b>			<b>151,265</b>	<b>194,678</b>	<b>235,762</b>
<b>Balance carried forward at 31 December 2014</b>			<b>137,020</b>	<b>176,345</b>	<b>213,559</b>

## Balance sheet as at 31 December 2014

	2014	2013	2014	2013	2014	2013
	£	£	EUR(€)	EUR(€)	USD(\$)	USD(\$)
<b>Fixed Assets</b>	3,433	2	4,418	2	5,351	3
<b>Current Assets</b>						
Cash and debtors due	136,360	157,608	175,495	202,841	212,531	245,648
<b>Creditors</b>						
Amounts due within one year	(2,773)	(6,345)	(3,569)	(8,166)	(4,322)	(9,889)
<b>Net Assets</b>	137,020	151,265	176,345	194,678	213,559	235,762
Represented by:						
Unrestricted Funds	96,776	107,235	124,551	138,011	150,835	167,136
Burdon Fund	40,244	44,030	51,794	56,667	62,724	68,625
<b>Funds</b>	137,020	151,265	176,345	194,678	213,559	235,762

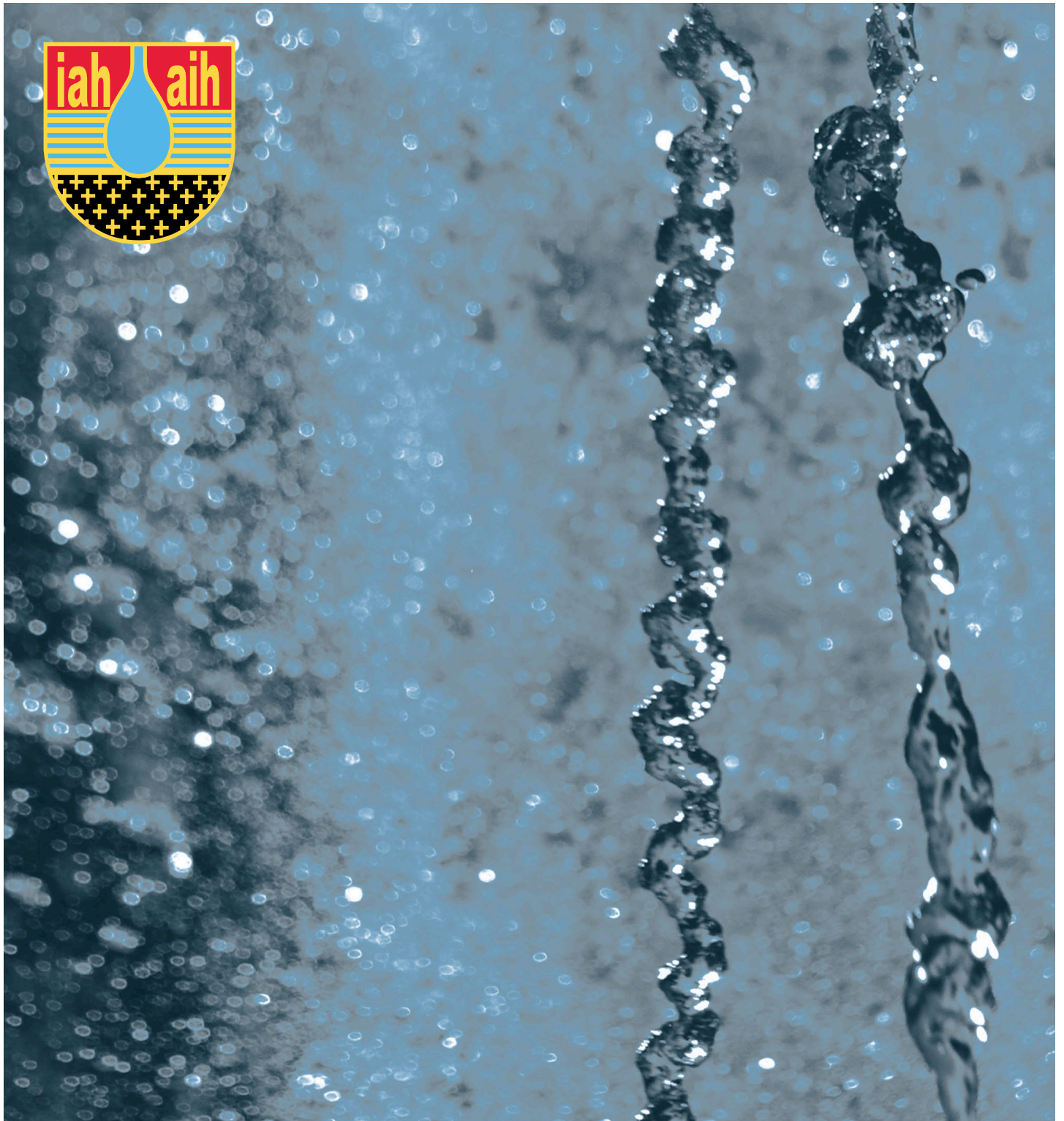
**Statement by the Association's reporting accountant:** These summarised accounts are extracted from the full financial statement of the Association which were subject to an unqualified report by Locke Williams Associates LLP, Blackthorn House, St Pauls Square, Birmingham, B3 1RL. The independent examiners have confirmed that the summarised accounts are consistent with the full annual financial statements and the Trustees' Annual Report of International Association of Hydrogeologists for the year ended 31 December 2014. The annual report and accounts were adopted by the IAH Council on 7th August 2015 and will be submitted to the Charity Commission and the Registrar of Companies.

These summarised accounts may not contain sufficient information to gain a complete understanding of the financial affairs of the Association. For further information, the full accounts, the reporting accountants' report on those accounts and the trustees' annual report should be consulted; copies of these can be obtained from the IAH International Office or downloaded from [www.iah.org](http://www.iah.org).

Throughout this report the conversion from sterling (£) to Euro (€) is at the rate of €1.287 = £1 and to US Dollar (\$) is at the rate of \$1.5586 = £1.







# **International Association of Hydrogeologists**

## **the World-wide Groundwater Organisation**

IAH Secretariat

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