



Newsletter of the
Australian Chapter of the
*International Association of
Hydrogeologists*

June 2016 to September 2016
Volume 32, No. 3

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International Association of Hydrogeologists Australian National Chapter

The International Association of Hydrogeologists is a professional association for those within disciplines related to groundwater, its occurrence, utilisation, testing and management. IAH is a scientific and educational organisation that is truly international, and was established to foster closer ties, cooperation and information exchange related to the study of groundwater. IAH is non-government and non-profit and has over 4000 members internationally from around 120 countries. The Association is affiliated with the International Union of Geological Sciences (IUGS), and was founded during the 20th International Geological Congress in 1956. By its statutes the IAH is an association of individuals and corporate members, and not a federation of national committees. National groups do, however, organise local meetings and other activities. A proportion of the national committee membership goes to the local organisation to support these activities, the remainder to the international body. The country of the international secretariat is changed every several years. The IAH publishes Hydrogeology Journal, various workshop and conference proceedings and an international newsletter.

The main objectives of the IAH are to promote international and national cooperation between involved scientists and engineers; sponsor international and national technical/management meetings and symposia on hydrogeology; publish hydrogeological reports, papers and maps; establish investigation commissions and working groups to report on special topics; encourage the international application of relevant approaches and techniques for the benefit of the hydrological and human environment.

Our national chapter was founded in 1983 and is one of the most active. Activities tend to be organised locally within each state and territory, but national activities also occur. Each state body has its own meetings, usually monthly. Conferences are held in Australia around every two to three years, and seminars on a more frequent basis.

Membership Requirements: IAH will accept as individual members anyone directly or indirectly engaged in study or research on, or management of water in its various forms related to hydrogeology, if sponsored by two members in good standing. Companies and research organisations can apply for corporate membership. The current membership categories and annual subscriptions for 2015 (see www.iah.org.au) are:

- | | |
|-------------------------|---------------------------|
| ▪ Member | \$140 |
| ▪ Online member | \$120 |
| ▪ Student | \$55 (full time students) |
| ▪ Online Student Member | \$35 |
| ▪ Corporate member | \$790 |
| ▪ Partial sponsor | \$155 |
| ▪ Full sponsor | \$190 |
| ▪ Retired | \$75 |

We are pleased to announce that the student membership fees have been reduced by \$20 in 2015 as an added incentive for full-time students to become IAH members. In addition, we have maintained the Member and Online Member fees at their current level, despite a rise in the IAH International fees for these membership categories for 2015.

Membership of this professional association is tax deductible in Australia, and individual members are entitled to use 'MIAH' (Member of the International Association of Hydrogeologists) after their name.

From the President

Welcome to the final IAH newsletter for 2016!

I have been fortunate enough over the last two years to tour around this magnificent country with my family. I have recently returned from the Flinders Ranges - my first visit to that amazing part of Australia. As always, I am reminded of the importance of groundwater throughout Australia. Throughout our country, springs and groundwater base flow to streams support environmental and commercial values. Drilled bores provide stock, domestic and irrigation water. Through northern Australia, we have rivers and waterways that flow right through the dry season - all groundwater. Many of our tourist attractions - water falls and water holes - are fed by groundwater base flow. We don't always have the massive, high volume springs that Europe, the America's and Africa are famed for, but groundwater underpins, in a more subtle way, so many of the things we value. Perhaps we should include the tourist industry to the value that groundwater provides to Australia!

September saw the 60th Birthday celebration of the IAH at the international congress in Montpellier, France. I was unable to attend this year (I was in the Flinders Ranges!), but am reliably informed there were 15 to 20 Australians among the 900 delegates from all around the world. Once again it was a great opportunity for networking, exchanging ideas and seeing some amazing hydrogeology!

As a follow-up to the congress, there was a workshop held involving French and Australian groundwater managers. The workshop enabled a range of discussions about comparative aspects of groundwater resource management between the two countries. Conferences and congresses provide great opportunities for other professional development activities to be held.

I am delighted to announce the next joint IAH / National Centre for Groundwater Research and Training Australasian Groundwater Conference will be held at the University of NSW in Sydney from 11 to 13 July 2017. Keep watching for regular updates, calls for abstracts and other conference details. Also think about what other opportunities bringing Australasia's hydrogeology community together may yield - specialist workshops and seminars, communities of practice within our broader community. Make the most of this great opportunity!

I would like to finish up by saying a big thank you to each of the State committee chairpersons and committees for all the great work throughout the year. I would also like to thank the National Executive - Lange Jorstad, Kyle Horner and Ron Coleman for all your great support and hard work throughout the year.

All the best for the coming Christmas and summer holiday season!

Chris McAuley

President - Australian Chapter, IAH

National Corporate Sponsors

We gratefully acknowledge the support of our national corporate sponsors.



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www.jbsg.com.au



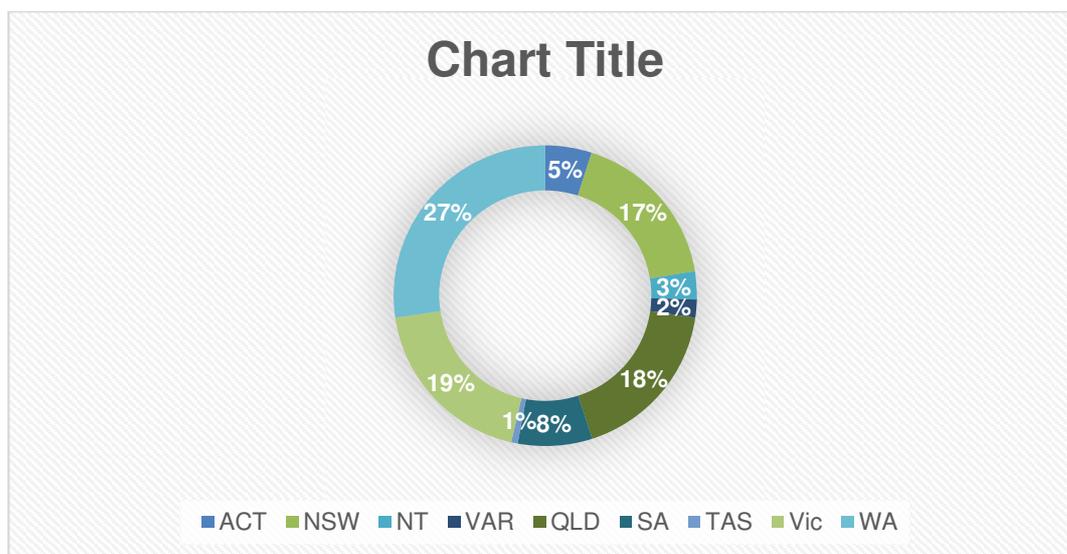
www.rockwater.com.au

Membership

The 2016 membership year has seen 567 members across the Australian Chapter renew their memberships. Members benefit from being part of a global community of groundwater practitioners and professionals. Networking and linking with a wide range of individuals, organisations and institutions is becoming more important as economic conditions tighten.

Check your state chapter events page on the IAH website to keep up to date with events and meetings. Don't forget if you are an IAH member you will receive a significant discount off the 2017 Australasian Groundwater Conference in Sydney. Keep an eye out for the opening of early bird registrations.

A snapshot of where our Australian members are from:



IAH membership spans a calendar year. Please note 2016 Membership renewals have closed. Membership for 2017 will open in late 2016.

Any inquiries regarding the memberships can be emailed to the IAH membership team membership@iah.org.au.

Current/Lapsed Membership Renewal Process

As a repeat from a previous issue of the newsletter, here's how an inactive member can become active again.

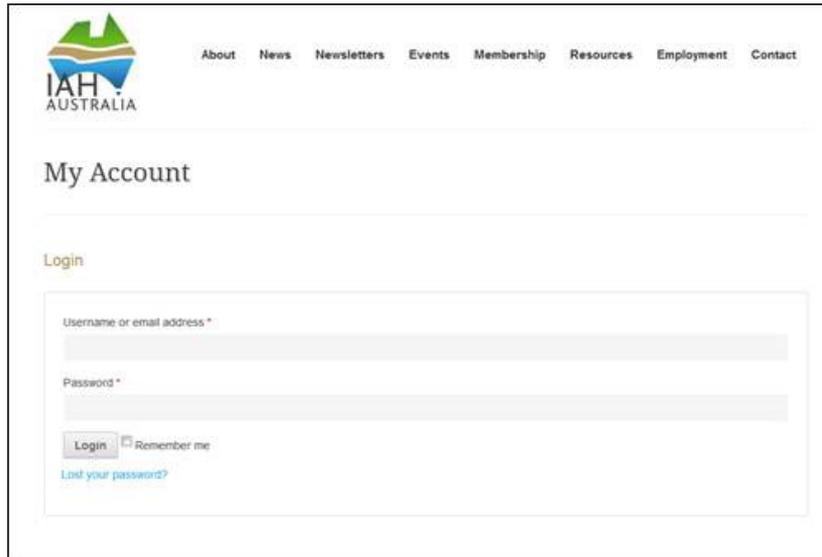
Note that if you were a member in 2015, and **did not receive** a membership renewal email in January 2016, some common issues are listed below:

- The email was intercepted by your **spam filter**. Check your spam folder or quarantine archive for IAH emails received on or about 15 January 2016, and consider adding the IAH sender details to your safe list.
- Your **email details changed** in the past year (for example, change of employment) and you have not yet updated your email address with IAH. You can update your details at any time through the iah.org.au website, by selecting "My Account" under "Membership", and editing account details.
- **Corporate "firewalls"** at some companies block all suspected incoming spam emails (IAH emails may be classified as "marketing" emails by some systems). Speak with your IT administrator about adding IAH to your corporate safe list, or switch to a personal email account.
- Your membership has **lapsed for more than a year** without renewal, and your details have been removed from our database. You can still use the new membership system to renew your lapsed membership.

Contact membership@iah.org.au with any questions.

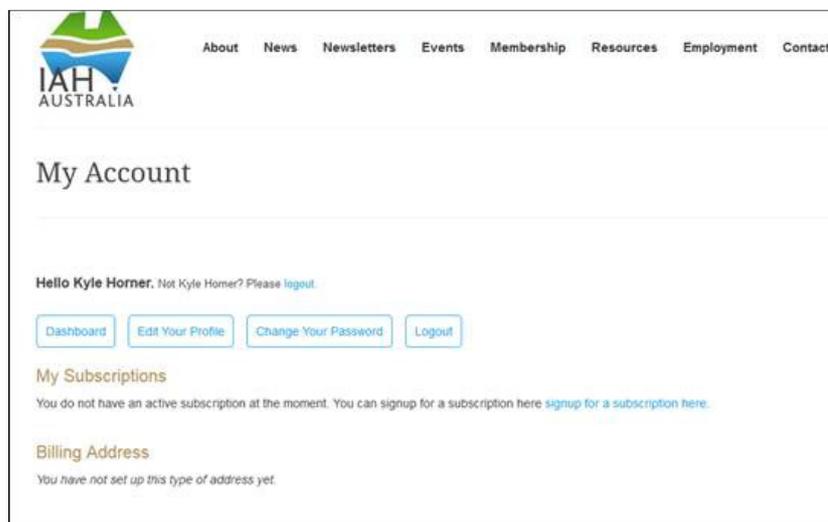
Log into [your account page](#) on the IAH website (<https://www.iah.org.au/membership/my-account/>).

Your username is the email address the email was sent to (which should be the email address you have registered with IAH). If you have forgotten your password, you can reset it using the "**Lost Your Password**" link at the bottom of the page **using the email address the email was sent to.**



Once logged in, you will see your account Dashboard.

Under the **My Memberships** section, click on the link to sign up for a new subscription. This will direct you to a new page where you can select your desired membership category from the options. Details of each membership type can be found at the bottom of the registration page. Once you have chosen your desired category, follow the prompts to finish your membership renewal.



If you have any questions, please do not hesitate to contact the membership team at membership@iah.org.au.

IAH National Committee

President	Chris McAuley	drhydronicus@gmail.com
Vice-President	Dr Lange Jorstad	ljorstad@geosyntec.com
Treasurer	Ron Colman	Ron.Colman@royhill.com.au
Secretary	Dr Kyle Horner	Kyle.Horner@epa.nsw.gov.au
Past President	Dr Rick Evans	Richard.Evans2@jacobs.com
Membership Secretary and Web Administration	Fiona Adamson	secretariat@iah.org.au
Newsletter Champion	Dr Ben Rotter	Ben.Rotter@mottmac.com

Finance Update

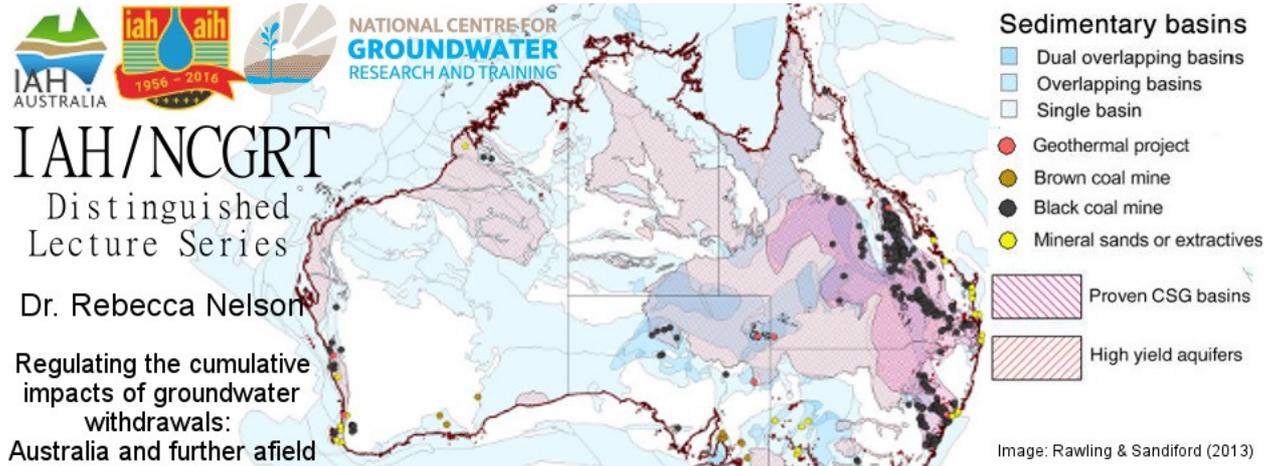
Term Deposits as of 30/09/16	\$99,078.03
Cash Account as of 30/09/16	\$70,002.31
Total Cash Balance as of 30/09/16	\$169,080.34

Only significant outgoing was insurance renewal payment of \$3,158.41

Signature: 
Ron Colman, IAH National Treasurer

Date: 26 Oct 2016

National Conferences and Events



Date	Location	Register
18 October	Melbourne	NCGRT
20 October	Hobart	NCGRT
26 October	Perth	NCGRT
03 November	Brisbane	NCGRT
10 November	Canberra	NCGRT
10 November	Sydney	NCGRT
30 November	Adelaide	NCGRT
01 December	Darwin	NCGRT

Event dates and registration information for the 2016 IAH/NCGRT Distinguished Lecture can be found on the NCGRT website.

The regulation of groundwater extraction has shifted dramatically through an intense era of intense water reforms spanning three decades. A key outstanding issue is controlling withdrawals with an eye to their cumulative impacts on groundwater resources and dependent systems. Such control is complicated not just by the incremental additive effects of many small withdrawals, but also by interactive and synergistic effects. This complexity is intensified further by data paucity, potentially significant time lags, and simultaneous background changes to natural systems, such as those caused by climate change.

Much of the attention to regulating cumulative impacts has focused on ensuring that traditionally unregulated types of groundwater withdrawals are controlled or at least monitored, and on special-purpose regulation of clusters of withdrawal activities, as in coal seam gas extraction. This talk suggests that a broader view is necessary and possible, inspired by national, state and interstate water law and policy, as well as comparative overseas experience. This broader view would encompass a wide and diverse set of regulatory and non-regulatory mechanisms for dealing with cumulative impacts, where those impacts are understood to include a broad scope of impacting activities and complex, interconnected receptor systems.



Join us for the 2017 biennial Australasian Groundwater Conference.

The theme for the conference program will be **Groundwater Futures: Science to Practice**.

An exciting three-day event is being planned that will enable delegates to examine the multi-dimensional challenges affecting the sustainable development of the regions groundwater resources.

Engaging panels, informative presentations, exhibitions and networking opportunities will engage the over 300 delegates from Australasia's groundwater research, industry, and management and policy organisations.

2017 AGC Abstract themes:

- Emerging Groundwater Initiatives
- Groundwater Science and Future Innovations
- Interdisciplinary Groundwater Problems
- Groundwater Resources and Climate Change
- Energy and Groundwater
- Groundwater Quality and Human Health

Abstracts will open 1 November 2016 and close 1 March 2017.

Keynote, plenary presentations and panel sessions will include climate change and groundwater resource challenges, energy futures, social license to operate and future directions and innovation in groundwater.

Stay tuned for the launch of the AGC2017 website.

From the Branches

New South Wales

IAH NEW SOUTH WALES BRANCH

2016 Committee:

Chair	Katarina David	(UNSW)
Presentations Secretary and External Communications	Graham Hawkes	(AECOM)
Treasurer	Tingting Liu	(Hydrosimulations)
Secretary	Sean Cassidy	(EMM)
Student and Young Professional Coordinator	Dr Anna Greve	(Eco Logical Australia)
Meeting Facilitator and Internal Communications	Sean Daykin	(WSP Parsons Brinckerhoff)
Newsletter Champion	Dr Ben Rotter	(Mott MacDonald)
NSW Sponsorship Champion	Jason Carr	(Jacobs)
Web Champion	Doug Anderson	(Water Research Laboratory, UNSW)
International Sponsorship Champion	Dr Jay Punthakey	(Ecoseal)
University Liaison	Dr Bill Milne-Home	(UTS)
Members Champion	Ellen Kwantes	(WSP Parsons Brinckerhoff)
National Vice President	Dr Lange Jorstad	(Geosyntec)
International Vice President - Australasia	Dr Wendy Timms	(UNSW)
Committee Support	Mark Peterson	(ANSTO)

Local News

Our regular branch meetings continue to be held at the office of WSP Parsons Brinckerhoff (WSP) located in the Sydney CBD. Thank you to WSP for supplying the convenient central venue, first class facilities, and food and drinks.

IAH NSW branch provides events that span all stages of a career in hydrogeology. Our Student Night event provides a platform for students, and our Young Professional Award recognises young professionals. For mid to late career hydrogeologists, a forum is provided for technical presentations. Highly experienced professionals join our panel

during Elders Night, with esteemed NSW hydrogeologists recognised by the receiving of the Woolley Award at or near retirement.

NSW Sponsors

IAH NSW gratefully acknowledges the contributions of its 2015/16 sponsors. Details of sponsors can be found on the website at <http://www.iah.org.au/about/new-south-wales/nsw/-branch-sponsors>.

Our Gold Sponsors are AECOM, Coffey, Eco Logical Australia, EMM Consulting Pty Limited, Earth Science Information Systems, Geosyntec, Jacobs, NSW Department of Primary Industries Water, NSW Environment Protection Authority, Parsons Brinckerhoff, WSP, and University of NSW Water Research Laboratory.

Our Silver Sponsors are Douglas Partners, C. M. Jewell & Associates, Ecoseal, Kalf and Associates, and Hydrosimulations.

Recent Events

13 September 2016 – Water Supply and Management at Zagora, Andros Island, Greece during the 9th and 8th Centuries BC – Michael J. Knight

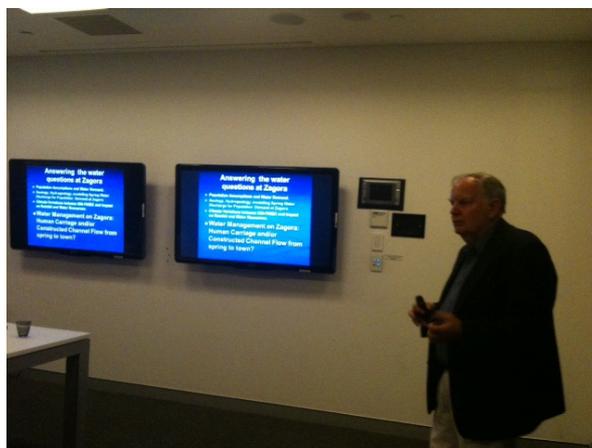
On the Greek island of Andros lies Zagora, an ancient town that was populated by about 1000 to 1500 people during the 9th and 8th Centuries BC. By 700 BC, Zagora suddenly depopulated. At its peak, the settlement needed about 7500 litres/day of water to be sustainable and this cannot be achieved under the current climate.

A team of archaeologists from Sydney University are excavating the site and Prof Knight is working with them to address three fundamental water survival questions at Zagora:

- What water did they use between 900 and 700 BC?
- How did they obtain it each day?
- Was the availability of water, or lack of it, a factor in the demise of Zagora by 700 BC?

Prof Knight explained that the research challenge was to answer these questions with minimal hydrogeological data available. Knowledge about how other civilisations used groundwater before and after the Zagora occupation has helped guide the research.

Prof Michael J. Knight is Emeritus Professor of Hydrogeology at the University of Technology, Sydney.



Prof Knight Presenting

9 August 2016 – 2016 Darcy Lecture: Seeing Things Differently - Rethinking the Relationship Between Data, Models, and Decision-Making – Dr Ty Ferré

Practicing hydrogeologists construct detailed numerical models to predict the responses of hydrologic systems to natural and applied stresses. These predictions form the basis for decisions that must balance optimal use of resources and ecosystem support. These decisions typically involve multiple interested parties with strongly differing priorities for water allocation. Despite the importance that stakeholders place on water resources, budgets for hydrogeologic studies are often limited. As a result, the hydrologic models used for decision support are severely data limited. This requires improved methods to identify the optimal set of observations to collect and to use model predictions to support robust decision-making under considerable uncertainty.

Dr Ferré built on the basic concepts of decision science to present concepts and recent developments in optimal design of hydrogeologic monitoring networks. He discussed how hydrogeologic models can be used for decision support under uncertainty. He also showed that focusing hydrologic analysis on the specific, practical problems of interest can guide optimal measurement selection, advance hydrologic science, and improve the integration of science into economic and policy decisions.

Dr Ty Ferré is Professor of Hydrology and Atmospheric Sciences at The University of Arizona.

12 July 2016 – Hydrogeochemical and ecological processes in the hyporheic zone and the response to groundwater drawdown – Dr Helen Rutledge

This research has been carried out as part of a larger project, which focusses on addressing ecohydrological research questions in relation to coal seam gas extraction and coal mining for the Federal Department of Environment, Office of Water Science.

One aspect of this project is hyporheic exchange and biogeochemical processes, which includes organic carbon cycling, nutrient cycling, redox biogeochemical and microbial processes and the effect on ecological conditions for hyporheos and stygofauna.

This presentation focussed on one of the study sites at Maules Creek, NSW, and the organic matter content and redox chemistry in the hyporheic zone of this groundwater fed stream. Perennial hyporheic flow is supported by localised inputs of regional groundwater, which is oxygenated and low in organic matter. Inputs of oxygenated groundwater influence the redox chemistry and organic matter processing in upwelling hyporheic zones, which in turn influences stream ecology including the habitat for hyporheic fauna. Thus, activities causing drawdown in groundwater fed streams may impact redox chemistry, organic matter processing and stream ecology.

Dr Helen Rutledge is a Post Doctoral Fellow of the Connected Waters Initiative in the Faculty of Science, Water Research Lab, NSW.

Upcoming Events

11 October 2016 – Student Night

This event will feature presentations from four PhD students. The following students will discuss their research on the following topics:

- Chris Doran, University of Wollongong
Land use and its relationship to riparian zone organic carbon storage on the Upper Hunter River
- Fazina Kater, University of Sydney
Towards a numerical approach to identify Hydrogeological Landscape Units
- Sinxay Vongphachanh, University of Technology Sydney
Surface water and groundwater interactions in Southern Laos
- Serena Yeung, University of Sydney
Submarine landslides offshore Yamba, Australia: An analysis of their timing velocities and possible causes

The NSW IAH Young Professional Award recognises technical achievement and broader professional development achieved by a professional with up to five years post graduate experience in groundwater related work.

The winner of the award will be announced at the Student Night.

2 November 2016 – Regional IAH NSW meeting, Albury

Further details to be announced.

10 November 2016 – NCGRT Distinguished Lecturer: Regulating the cumulative impacts of groundwater withdrawals - Australia and further afield – Dr Rebecca Nelson

The regulation of groundwater extraction has shifted dramatically through an intense era of intense water reforms spanning three decades. A key outstanding issue is controlling withdrawals with an eye to their cumulative impacts on groundwater resources and dependent systems. Such control is complicated not just by the incremental additive effects of many small withdrawals, but also by interactive and synergistic effects. This complexity is intensified further by data paucity, potentially significant time lags, and simultaneous background changes to natural systems, such as those caused by climate change.

Much of the attention to regulating cumulative impacts has focused on ensuring that traditionally unregulated types of groundwater withdrawals are controlled or at least monitored, and on special-purpose regulation of clusters of withdrawal activities, as in coal seam gas extraction. This talk suggests that a broader view is necessary and possible, inspired by national, state and interstate water law and policy, as well as comparative overseas experience. This broader view would encompass a wide and diverse set of regulatory and non-regulatory mechanisms for dealing with cumulative impacts, where those impacts are understood to include a broad scope of impacting activities and complex, interconnected receptor systems.

Dr Nelson is a Senior Lecturer, Melbourne Law School, University of Melbourne, Fellow (Non-Resident) of the Woods Institute for the Environment at Stanford University, and practising lawyer and policy consultant.

6 December 2016 – Trivia Night

A fun night of trivia questions with a hydrogeological orientation. Further details to be announced.

Other News

Student Support

NSW IAH members met with students from University of NSW, University of Sydney, University of Technology Sydney, and University of Wollongong following the August 2016 presentation.

NSW IAH's potential support for students was discussed, including opportunities for internship/mentoring and careers information.



NSW Committee Members, Ellen Kwantes and Anna Greve, with university students

IAH NSW on LinkedIn

IAH NSW has gained a presence on professional social media site, LinkedIn.

The page will provide events newsletters and advertisements for hydrogeology positions in the industry.

Australian Capital Territory

IAH AUSTRALIAN CAPITAL TERRITORY BRANCH

2016 Committee:

Chair	Lucy Lytton	(Geoscience Australia)
Vice-Chair / Secretary	Scott Lawson	(Department of the Environment)
Treasurer	Anne Reisz	(Department of the Environment)
Events Committee	Tim Evans	
	Tim Ransley	(Geoscience Australia)
	Chris Harris-Pascal	
	Peter Hyde	
Communications Champion	Stephen Hostetler	(Murray Darling Basin Authority) (Geoscience Australia)
Membership Champion	Tim Evans	(Geoscience Australia)

Local News

2016 – Darcy Lecture: Seeing things differently: rethinking the relationship between data, models and decision-making, Dr Ty Ferré, 11 August 2016

The IAH ACT Branch was pleased to once again host the Darcy Lecture. We had a great turnout of 50 people at the Harold Raggatt Theatre at Geoscience Australia. But the highlight of the day was experiencing a well presented and stimulating seminar that generated a high level of interest for question time. Following the seminar a large group of us joined Ty for a very enjoyable dinner. We can't wait for next year!

Victoria

IAH VICTORIA BRANCH

2016 Committee

Chair	Alan Wade	(Aquade)
Vice-Chair	Ben Hall	(Eartheon)
Secretary	Tara Smith	(Jacobs)
Treasurer	Anthony Brinkley	(Jacobs)
Events Committee	Katy Kijek	(Port of Melbourne Authority)
Communications Champion	Heath Pawley	(Golder Associates)
Membership Champion	Alexis Valenza	(Valenza Engineering)
	Matt Currell	RMIT
	Anne Northway	EPA
General Committee	Riki Gresswell	CDM Smith
	Ben Moore	CFA
	Lynton Bourne	Noel Arnold & Associates
	Mike Hoban	DELWP

Local News

Our regular branch meetings continue to be held alternatively at the Melbourne RMIT City Campus and at Jacobs Melbourne Branch. Thank you to RMIT and Jacobs for supplying the convenient central venues and first class facilities.

Committee Meeting

Our last VIC Chapter IAH committee meeting was held on the 6th October 2016 at the Melbourne RMIT City Campus.

Talks

We had a several talks covering a large range of topics over the 3rd quarter 2016. A few highlights below.

Tuesday 27th September: 2016 IAH PRESENTATION. Sam Sheppard (La Trobe University, Honours in hydrogeology) & Matt Hunt (RMIT University, Masters in hydrogeology)

Matt Hunt: Tidal effects on groundwater and contaminant movement within the Yarra Estuary, Fishermans Bend

Sam Sheppard: The use of Radon to determine ground and surface water interaction in the Birch Creek catchment, VIC.

Tuesday 18th October: 2016 IAH / NCGRT Distinguished Lecture Series: Regulating the cumulative impacts of groundwater withdrawals: Australia and further afield. Dr. Rebecca Nelson, University of Melbourne

Rebecca Nelson is a Fellow of the Stanford Woods Institute for the Environment and a Senior Fellow of the Melbourne Law School, where she teaches water law. Her research focuses on natural resources law and policy in Australia and the United States, with an emphasis on empirical research and practical solutions. From 2010-2014, she led the Comparative Groundwater Law and Policy Program, a collaborative initiative between Water in the West at Stanford University and the United States Studies Centre at the University of Sydney. The Program focused on undertaking empirical research and convening stakeholder workshops to improve groundwater sustainability in the western US and Australia. Dr Nelson formerly worked as a lawyer at the Murray-Darling Basin Authority and in private practice in Australia. In 2014 she was named the Law Council of Australia's Young Environmental Lawyer of the Year for her contribution to water law and environmental law. Dr Nelson also acts as a Director of Bush Heritage Australia (a private conservation organization), and an independent water lawyer and policy consultant. She holds a Doctor of the Science of Law from Stanford University, where her dissertation focused on empirically assessing regulatory arrangements for protecting surface water and ecosystems from the impacts of pumping groundwater. She also holds a Masters in law (Stanford) and Bachelor of Engineering (Environmental) and Bachelor of Laws (University of Melbourne).

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Great attendance, and a great thank you to Jacobs for the drinks.

Coming Talks

The following talk will be given in November 2016. Stay tune on the IAH VIC portal <https://www.iah.org.au/events/victoria/>

[Seeing things differently: rethinking the relationship between Data and Models](#)

Tues 8th November, 5:30 for a 6pm start

Hydrogeology of Lake Tutchewop in north Victoria

RMIT City Campus, Building 56 (at 115 Queensberry Street Carlton), Level 3, Theatre 93

Victorian Government to Permanently Ban Unconventional Gas.

The Victorian State Government yesterday announced plans to table draft legislation later this year which seeks to permanently ban coal seam gas and fracking and extend the moratorium on onshore conventional gas exploration to 2020. This is in response to the Victorian Parliamentary Inquiry into unconventional gas completed last year to which IAH Victoria made a detailed submission.

<https://www.premier.vic.gov.au/victoria-bans-fracking-to-protect-farmers/>

Senior Lecturer in Hydrogeology & Environmental Engineering at RMIT and IAH Victoria committee member Dr Matt Currell, was on 3AW yesterday afternoon discussing the Vic Gov's ban on fracking and onshore gas. If you missed it you can listen at the link below (skip to 40:00).

<http://www.3aw.com.au/news/3aw-drive-tom-elliott-podcasts-20141218-129tb3.html>

43rd IAH International Congress “Groundwater and society: 60 years of IAH”

Vice-Chair Committee member Ben Hall (Eartheon) attended the 43rd IAH International Congress, and at the same time celebrate the existence of 60 years of IAH, in Montpellier, France, from 25th to 29th September 2016.

Abstract book can be downloaded here:

http://www.60iah2016.org/en/programme/final-programme?journee=&heure_debut=&salle=&text=hall&programme-submit=Search

Certification

The Victorian Certification Sub-committee is looking into certification processes around the world. Alan Wade, committee Chair has made contact with the NGWA to get some understanding of the “Certified Ground Water Professional” (CGWP) scheme in place in the USA.

Stay tuned!

Western Australia

No update available in this edition.

South Australia

No update available in this edition.

Northern Territory

IAH NORTHERN TERRITORY BRANCH

2016 Committee:

Chair	Melissa Woltmann
Vice-Chair	Joanna Ellis
Secretary	Steve Tickell
Treasurer	Quinton Bruwer

Recent Events

Mataranka Field Trip 15–17 July

Steve Tickell lead a field trip to examine the various springs and tufa deposits in the Mataranka area.

Berry Springs Day trip 28 August

Darwin members hosted a local day trip to Berry Springs and Territory Wildlife Park for new members and Darcy Lecturer Ty Ferre. Steve Tickell led the tour to look at the spring at the big fig tree, the spring fed tributary coming out of the Wildlife Park and the main swimming hole. We also visited the Wildlife Park, inspecting the spring area with its spectacular monsoon rainforest.



Day trip to Berry Springs Nature Park

Darcy Lecture and Seminar 29 August

The Darcy Lecture and Seminar held at Charles Darwin University was well attended. In addition to Ty's Lecture, there were two other presentations. Scott Lawson from Power and Water presented on participatory mapping on Milingimbi Island to assist in developing the conceptual model. This project is one part of the recently funded 2015 ARC Linkage Program project at Milingimbi.

Clement Duvert from CDU presented on his research aimed at quantifying the export of inorganic and organic carbon from tropical savanna soils to rivers via the groundwater baseflow.

Upcoming Events

Distinguished Lecture and IAH NT Branch AGM

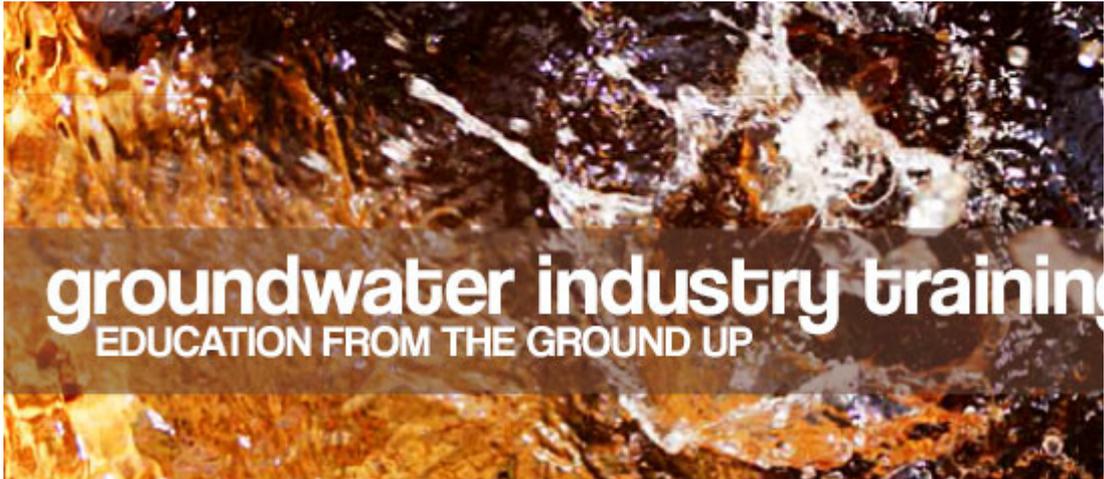
The AGM will be held at 2pm on 1 December 2016 in the Conference Room Level 1 Goyder Bldg Palmerston. This will be followed by the Distinguished Lecturer Rebecca Nelson at 2:30pm.

Tasmania

No update available in this edition.

Queensland

No update available in this edition.



For upcoming courses, see <http://www.groundwater.com.au/events/training>

IAH Publications

Discounted IAH publications in the 'International Contributions to Hydrogeology' and the 'Selected Papers' series can be ordered by Australian IAH members directly from Macmillan Publishers Australia in Victoria.

customer.service@macmillan.com.au or orders@macmillan.com.au

Remember to quote your IAH Membership Number, which entitles you to a substantial discount. If you don't know your IAH membership number contact the Secretariat at: joel-p@groundwater.com.au