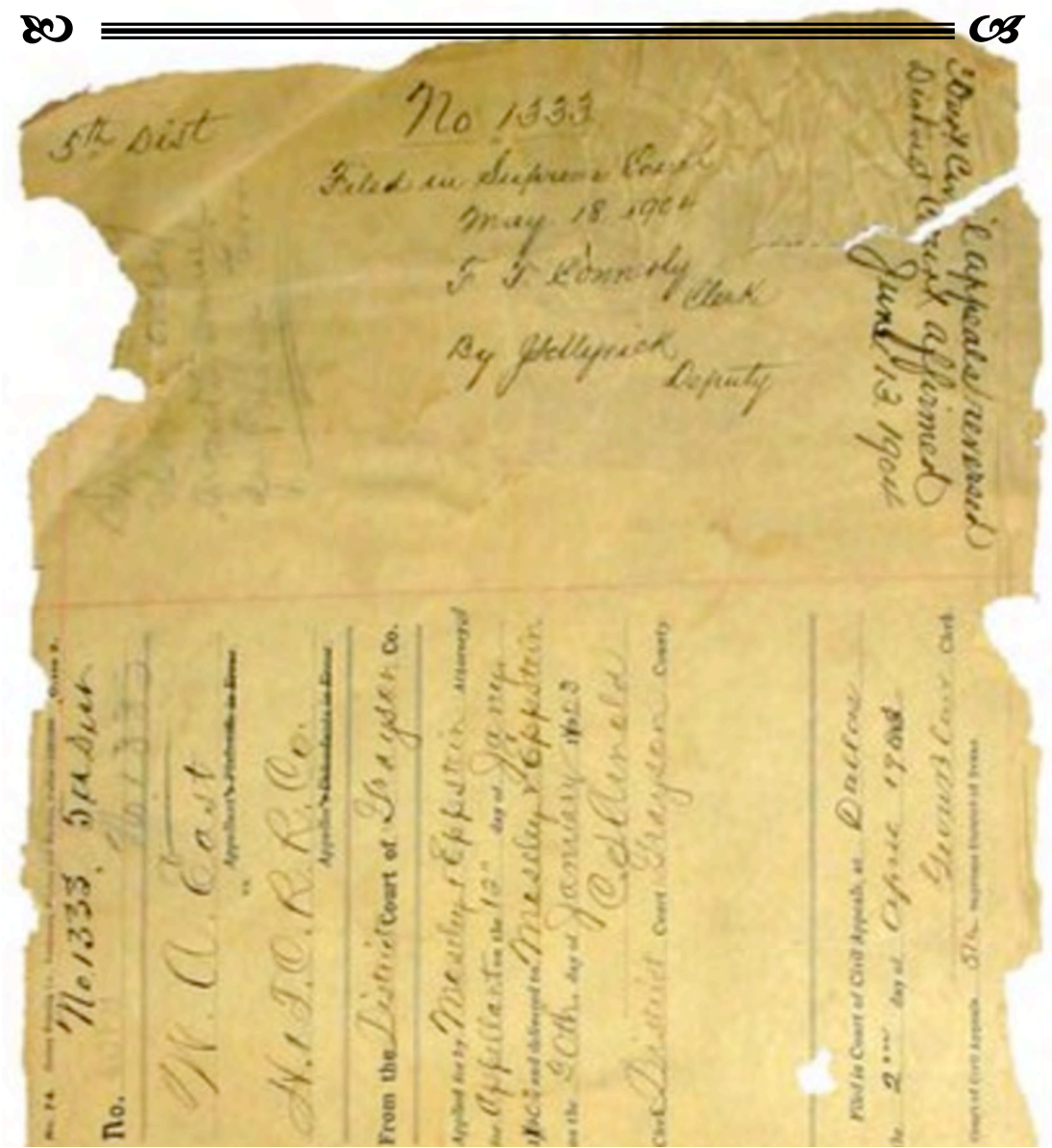


International Association of Hydrogeologists
U.S. National Chapter
Spring 2016 Newsletter
 Editor: Suzanne Pierce



Cover Photo Caption: Digital image from the landmark case establishing the Rule of Capture in Texas from the Texas State Archives in Austin, Texas of the Appeal to the Court of Civil Appeals, 5th Supreme Judicial District filed on April 2, 1903.



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IAH/US NATIONAL CHAPTER: EXECUTIVE COMMITTEE 2012-2015

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A Note From The Chair

Greetings! 2016 is shaping up to be an exciting year for the IAH US National Chapter. Vicki Kretsinger, Suzanne Pierce, and Kevin Blatt (our webmaster) are currently in the process of redesigning (and modernizing) our web page, including links with social media (blogs and twitter) to get time-critical information out to our membership faster than is possible through the newsletter. Another effort we are quite excited about is the formation of a US National Chapter (USNC) of the Early Career Hydrogeologists Network (ECHN) – this has been extremely popular with our younger European members for creating networking and social opportunities. A Canadian ECHN was recently formed and we hope to get a USNC going by the end of this year. If you are or know of an early-career hydrogeologist who would benefit from this, please have them contact Jim LaMoreaux (JLamoreaux@pela.com) or Dave Kremer (dave.kremer@unlv.edu).

We recently selected ten student members to sponsor as IAH members for 2016, an effort led by Devin Galloway. This award is for a one-year free membership to graduate students in the field of hydrogeology. The nomination period for 2017 sponsored student memberships will take place this coming fall. If you are in academia, please consider nominating any graduate students who might benefit from this opportunity. We also are currently sponsoring nine Developing Country members (for a 5-year term each) from Bolivia, Costa Rica, Honduras, Iraq, Mexico, Peru, and Ukraine. If any of you will be working in these countries, these could be helpful contacts; please let me know if you would like their email addresses.

Another recent effort was the creation of a USNC International Service Award; Mike Campana, our first recipient, was honored with this award at the 2015 Geological Society of America (GSA) meeting Hydrogeology Division Luncheon in Baltimore. This award, which will be presented to an IAH or GSA member at each annual GSA meeting, is a great opportunity for recognizing the international efforts of our peers. The next award will be presented at the 2016 Annual GSA meeting in Denver September 25-29. Nominations should be submitted directly to Andy Manning (amanning@usgs.gov) by August 1st (see related article about the 2016 IAH USNC International Service Award).

Our association with GSA continues to strengthen. In addition to being one of over 40 IAH National Chapters (<https://iah.org/groups/national-chapters>), our USNC is incorporated in the State of Colorado as a non-profit 501 (c)(3) under the umbrella of GSA. During this past year's GSA meeting, several of us met with Vicki McConnell, the new Executive Director of GSA. Consistent with Jack Hess's (GSA's past Executive Director) commitment to IAH, she is very supportive of our IAH-GSA relationship and interested in the opportunities to further develop synergies between the two organizations.



The next IAH Congress will take place in Montpellier, France (<http://www.60iah2016.org/en/>). This is a very special event, as it is celebrating the 60th anniversary of IAH. Thus, the theme is “Groundwater and society: 60 years of IAH”. Related to this, Willie Struckmeier (past IAH International President) is leading an effort to compile stories and photos of IAH members and chapters for this anniversary celebration. If you have any materials to contribute, please submit them to either him (willistr@online.de) or John Chilton (jchilton@iah.org).

Special thanks and appreciation to Suzanne Pierce for doing such a great job with this issue of our newsletter! Please continue to support these efforts by submitting articles for our fall 2016 issue (submission deadline of August 1st).

This is the final year of our current USNC Board (2012-2016). I want to express my deep appreciation for all the hard work of our Directors. We will be holding online elections for new Directors this coming summer, prior to the IAH Congress in Montpellier in September. USNC members will be notified via email at least 30 days prior to the final day of voting. Although our three-person Nominating Committee will be nominating candidates to fill these vacancies, voting members may elect Directors who are not included on the list submitted by the Committee.

Our next USNC Board Meeting will be at the 2016 NGWA Groundwater Summit in Denver, Colorado. We will meet in the Curtis Room of the Westin Downtown Denver hotel from 5:45 – 7:00 pm on Tuesday April 26th. All are welcome and we look forward to seeing you there!

Vic Heilweil, Chair – IAH-USNC
Email: heilweil@usgs.gov



Note from the Vice President for North America

Happy Spring to all, hope this note finds you well. From the international scene, nominations for IAH Council positions closed at the end of March. Elections for these board positions will be held electronically in the coming months with a full slate of candidates lined up. IAH International Council positions are four-year terms including the Vice President for North America. The new elected V.P. will assume full responsibilities at the September meeting in Montpellier, France. Duties of Council Members include being Trustees of the IAH registered charity, active participation in guiding the future of IAH, and coordination of activities between national chapters, commissions and networks.

Dave Kreamer
Email: dave.kreamer@unlv.edu



Treasurer's Report – *Vicki Kretsinger Grabert*

2016 U.S. National Chapter (USNC) Memberships

As of Spring 2016, the USNC has about 240 USNC members, including 23 honorary members and 26 sponsored members. The USNC is sponsoring 9 developing country and 10 student members.



If you have not yet renewed, please do so soon or you will miss out on member benefits, especially the *Hydrogeology Journal*. Renew online or send checks to:

**Vicki Kretsinger Grabert
USNC Treasurer
500 First Street
Woodland, CA, 95695**

2016 USNC Financial Status

Regarding our general funds, we currently have about \$14,000 in our JPMorgan Chase checking account and about \$34,000 in our Vanguard Mutual Fund Account (Total Stock Market Index Fund). Separately, the USNC has about \$21,000 in its Endowment Fund, split evenly between two Vanguard Funds (STAR and Extended Market Index). Last year, we reached our goal of establishing an Endowment Fund total of at least \$23,300. We will continue to add additional contributions and let these funds grow. The USNC Endowment Fund is for purposes such as sponsoring students and developing country memberships, supporting national chapters in developing countries, and promoting international activities that further the advancement and application of hydrogeology, including research, education, outreach, and training. The US National Chapter's Finance Committee, in coordination with the Executive Committee, will be identifying specific ways to begin using these funds for their intended purposes.

Sponsorships

Please consider sending sponsor funds to the USNC. Your funds help support the IAH USNC Endowment Fund and will expedite the timeframe within which funds will be actively used to support students and developing country members.



Updates on IAH USNC Activities and Projects of Interest

IAH USNC International Service Award – *Andy Manning*

TIME TO SUBMIT 2016 NOMINATIONS: AUGUST 1ST

The IAH USNC seeks to recognize the efforts of hydrogeologists based in the United States who have shown an outstanding commitment to assisting the international community with groundwater-related needs.

Criteria: The award will be presented to one individual each year who has performed exceptional work in assisting those outside of the US (particularly in developing countries) with developing, managing, or protecting groundwater resources for public and/or ecosystem benefit.

Presentation: An engraved plaque will be presented at the Geological Society of America's Annual Meeting at the Hydrogeology Division Luncheon.

Selection Process: Candidates must be nominated by at least one hydrogeologist other than themselves who is a member of either IAH or GSA. 2016 Nominations should be sent to the IAH US National Chapter's GSA liaison Andy Manning (amanning@usgs.gov) by August 1st, 2016. *Please see our website for further details!*



Voting Opens for the Coolest Paper Competition – *Viviana Re and Jim LaMoreaux*

Calling on early career hydrogeologists to participate! The Early Career Hydrogeologists' Network (ECHN) of the International Association of Hydrogeologists (IAH) announced the new edition of the IAH-ECHN 'Coolest Paper' of the Year Award!

The purpose of the competition is to engage the early career hydrogeology community and encourage discussion of new and exciting hydrogeology research. It is being run entirely online, with crowd-sourced nominations and voting. With the IAH-ECHN 'Coolest Paper' of 2015 Award all early career hydrogeologists are encouraged to participate and vote for the most inspiring and relevant paper of 2015. The voted paper can be from any peer-reviewed journal and by any author.

The only criterion: the paper must focus on hydrogeology and you need to be an early career hydrogeologist (hydrogeology student or in the first 10 years of professional work) to vote. Once nominations have closed, we will open voting to decide on the most amazing, inspirational, engaging and coolest hydrogeology paper of 2015. In addition to being widely recognized as an inspiring author, the winner will receive a year's free membership of IAH and an IAH book prize of his or her choice. The winning author will be awarded at the 2016 IAH Congress in Montpellier, France, where he/she will also be invited to deliver an oral presentation. As an added bonus, when YOU nominate a paper YOU will be added into a prize draw to WIN a book of your choice from the IAH book series! More information at: <https://echn.iah.org/coolest-paper-of-2015-award>

Meet the New 2016 IAH-USNC Sponsored Graduate Student Members – *Devin Galloway*



The IAH U.S. National Chapter (USNC) strives to sponsor one-year, graduate student memberships annually through general funds and through generous individual contributions of our members. This year we are sponsoring ten students, who were nominated by their faculty advisors or professors. The students represent a diverse, ambitious and accomplished group of graduate students with strong international hydrogeology interests. If you are interested in sponsoring (\$39–52/yr) or nominating a student for sponsorship, please contact the IAH-USNC Membership Liaison (Devin Galloway, dlgallow@usgs.gov, 916-801-2040).

Mahawa-Essa Mabossani Akara, M.S. Candidate (Hydrogeology), Department of Geography-Geology, Illinois State University (Nominated by: Dr. Eric W. Peterson, Professor, Department of Geography-Geology, Illinois State University). makara1@ilstu.edu; <http://geo.illinoisstate.edu/hydrogeology/students/>

Mahawa-Essa earned a B.S. in Geosciences from the University of Lome (Togo). He worked for five years with a water-supply drilling company in Togo. As a Fulbright grantee, Mahawa-Essa's thesis research at ISU concerns the application of seismic refraction methods to determine the effects of tile drainage diversion on the water table in a riparian buffer. He notes that "Being a member of IAH will give me the opportunity to network and share knowledge and experience with other hydrogeologists."

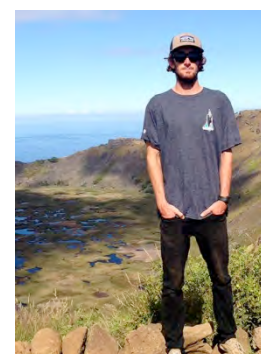


Heidi Babos, Ph.D. Candidate (Earth and Ecosystem Sciences), Department of Earth and Atmospheric Sciences, Institute for Great Lakes Research, Central Michigan University (Nominated by Dr. Wendy Robertson, Assistant Professor, Department of Earth and Atmospheric Sciences, Central Michigan University). babos1hb@cmich.edu; https://www.cmich.edu/colleges/cst/earth_atmos/Pages/Graduate-Students.aspx

Heidi earned a B.S. in Environmental Science with Geology concentration from the University of Mount Union, after which she served as a volunteer for Americorps: Ohio Stream Restore Corps. As part of a watershed organization in Appalachian Ohio, she worked alongside the Ohio Department of Natural Resources, Mineral Resource Management to create and maintain reclamation projects for groundwater and surface water affected by acid mine drainage from abandoned coal mines. Concurrently, she interned with North Point Engineering providing background research and groundwater testing for abandoned landfills. Heidi went on to earn a M.Sc. in Environmental Archaeology from the University of Reading (UK). Currently, she works with Dr. Wendy Robertson and Dr. Anthony Chappaz examining variability of trace metals content in glacial aquifers of Michigan. Heidi is studying trace metal biogeochemistry focusing on Chromium and its chemical speciation in both modern and ancient aquatic systems, and is contributing to the development of a new generation of geochemical proxies.



Matthew Cole, M.S. Candidate (Hydrogeology), Conrey Hydrogeology Program, Department of Geological Sciences, California State University–Long Beach (Nominated by Dr. Matthew W. Becker, Professor, Conrey Endowed Chair–Hydrogeology, Department of Geological Sciences, California State University–Long





mccole72@gmail.com;

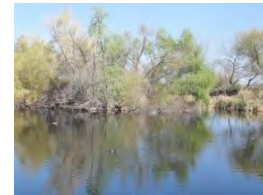
Beach).

<https://web.csulb.edu/depts/geology/hydrogeology/cole.shtml>

Matt grew up in southern California and completed his undergraduate studies at CSU Long Beach. After doing a bit of traveling, he returned to Long Beach to pursue a Master's degree. He is using periodic hydraulic testing in a bedrock fracture network to better understand concepts like flow channelization and short circuiting for application to geothermal energy production. As part of his research Matt has done hydraulic experiments at the Mirror Lake Fractured Research Site, Hubbard Brook Experimental Forest, New Hampshire and at the Ploemeur Fractured Rock site in Brittany, France. When he's not studying, he's probably off camping, backpacking, or surfing somewhere.

Patrick Dean, M.S. Candidate (Hydrogeology), Department of Hydrology and Water Resources, University of Arizona (Nominated by Dr. Ty Ferre, Professor, Department of Hydrology and Water Resources, University of Arizona). patrickdean@email.arizona.edu; <http://www.hwr.arizona.edu/users/patrickdean>

Patrick has worked as a teacher in several countries in Africa and is interested in continuing international work as a hydrologist. He is working on improved interpretation of deep temperature signals to infer recharge in seasonally variable climates.



Chloé Fandel, M.S. Candidate (Hydrogeology), Department of Hydrology and Water Resources, University of Arizona (Nominated by Dr. Ty Ferre, Professor, Department of Hydrology and Water Resources, University of Arizona). cfandel@email.arizona.edu; <http://www.hwr.arizona.edu/users/cfandel>

Chloé is interested in working across disciplines to study riparian ecosystem resilience, the effects of climate change on groundwater systems in arid regions, and localized water management policy. She is being co-advised by Prof. Christopher Scott through an NSF Coupled Natural-Human Systems grant, and by Prof. Ty Ferré. She also enjoys leading field trips with the University of Arizona SkySchool into the mountains around Tucson, to teach middle and high-school students about water. A dual French-American citizen, her previous work includes studying karstic aquifers in the south of France and surveying springs for the U.S. Forest Service in the Cascades. She completed her undergraduate degree in Geological Sciences at Brown University in 2012. Currently, she is working on the quantitative coupling of stakeholder valuation with predictive uncertainty of the responses of hydrologic systems to management efforts.



Michael Grzybowski, M.S. Candidate (Hydrogeology), Department of Geology and Environmental Geosciences, Northern Illinois University (Nominated by Dr. Melissa Lenczewski, Associate Professor, Department of Geology and Environmental Geosciences, Northern Illinois University). z1778733@students.niu.edu

Michael earned a B.S. in Environmental Science with a Water Resources concentration from Oklahoma State University. He attended the





University of the Philippines–Los Baños for his semester abroad, and interned at the Environmental Forestry Programs Office in the College of Forestry and Natural Resources where he helped survey, monitor, and characterize watersheds on the island of Luzon. Currently, Michael is a Graduate Assistant in the Department of Geology and Environmental Geosciences and is organizing a project to: 1) Study the groundwater dynamics of southern Mandalay, Myanmar using open-source software; and 2) Conduct an educational workshop at Yadanabon University (Myanmar) in applied hydrogeology. His goal as a hydrogeologist is to work in the developing world on groundwater issues.

Madison Larkin, M.S. Candidate (Hydrogeology), Department of Geoscience, University of Wisconsin-Madison (Nominated by Dr. Jean M. Bahr, Professor, Department of Hydrology and Water Resources, University of Wisconsin-Madison). mlarkin2@wisc.edu; <http://geoscience.wisc.edu/geoscience/people/student/?id=1285>

Madison earned a B.S. degree in Geology from Miami University, with a minor in global environmental sustainability. Her interest in studying contaminant hydrogeology on an international scale was sparked while studying abroad for a semester at the University of Cape Town, and through an undergraduate research trip to Zambia where she conducted research on Lusaka’s groundwater system. She is extremely passionate about expanding her knowledge of the proper use, protection, and care for groundwater at a global scale, while networking with other hydrogeologists from around the world who share a dedication to the protection of the world’s precious water resources. Madison looks forward to IAH membership to help supply her with a wealth of knowledge on global hydrogeology, particularly through networking, education and professional development.





Katherine Markovich, Ph.D. Candidate (Hydrologic Sciences), Department of Land, Air and Water Resources, University of California–Davis (Nominated by Dr. Graham Fogg, Professor, Hydrologic Sciences Group, Department of Land, Air and Water Resources, University of California–Davis). khmarkovich@ucdavis.edu; <https://gradstudies.ucdavis.edu/news/katie-markovich>

Katie earned a B.S. in Geology at the University of Texas at Austin, and spent a year in Cambodia as a Fulbright Fellow (2012-13) working on land-use change impacts to water quality in a rural area close to the Mekong Delta. She was involved as a volunteer with Well Aware, a hydrophilanthropy group that provides water solutions for schools and orphanages, and worked in Kenya to help develop sustainable water supplies for water-stressed communities. Currently, Katie is actively engaged in international research examining the role of mountain groundwater on watershed response to climate change and drought in both the northern Sierra Nevada and in the Andes of Chile. She successfully proposed and was awarded a National Science Foundation Graduate Student Fellowship, and is actively engaged with hydrology professors at Universidad de Concepción, Chile, in a collaborative effort on California and Chile mountain hydrology. Katie is an outdoor enthusiast and enjoys bicycling, hiking and visiting the ‘indoor wall’ at Rocknasium in Davis.



Charles Joseph Paradis, Ph.D. Candidate (Geology), Department of Earth and Planetary Sciences, University of Tennessee (Nominated by Dr. Larry McKay, Professor and Chair, Department of Earth and Planetary Sciences, University of Tennessee). cparadis@vols.utk.edu; <http://web.eps.utk.edu/graduate/gradstudents.php>

Charlie earned a B.A. in Geology from the University of California–Berkeley (2007), and an M.S. in Hydrology from the University of California–Davis (2013). His master’s research examined anaerobic pathways for biodegradation of petroleum hydrocarbons in aquifers. Charlie is currently a Graduate Research Assistant, and his research focuses on aquifer contamination issues related to changes in microbial community structure and function. Charlie’s doctoral studies examine the impact of repeated exposures of organic contaminants on biodegradation rates and mechanisms in an unconfined aquifer.



Melissa Thaw, Ph.D. Candidate (Environmental Systems), Environmental Systems Graduate Program, University of California–Merced (Nominated by Dr. Martha Conklin, Professor, School of Engineering and member of the Environmental Systems Graduate Group, University of California–Merced). mthaw@ucmerced.edu

Melissa earned a B.A. in East Asian Studies from Lewis and Clark College (2004) and a M.S. in Water Resources Management from the University of Nevada–Las Vegas (2013). She participated in the National Science Foundation East Asia and Pacific Summer Institute in 2012, where she was introduced to hydrology research in China. At UC–Merced, where Melissa’s research focus is on mountain and isotope hydrology, she is affiliated with the Sierra Nevada Research Institute and Southern Sierra Critical Zone Observatory. As she builds her knowledge and skill set in hydrogeology she would like to continue to pursue international research opportunities related to global water issues.



Member News and Notes



Short Courses: Solving Groundwater Problems Using Stepwise Modeling Approach

– *Dan Kelleher*

Midwest Geosciences and course instructors, Dr. Henk Haitjema and Dr. Randy Hunt, offer two courses that will present a spectrum of tools ranging from quantitative assessment to building easy-to-use groundwater models. The goal is to support well-informed decision making and efficiently solving groundwater problems. Participants will learn how to create, apply and review groundwater problems for case studies in California and beyond. Course topics will touch on contamination, El Niño, Management, Drought, Flooding, and Depletion among others. Learn more and register at: www.midwestgeo.com

Course One: May 3, 2016 – Quantitative Approaches and Solutions to Today’s Groundwater Problems (\$199 when registering for both Courses One and Two; early rate before April 27th \$499; professional rate \$599)

Course Two: May 4 & 5, 2016 – Groundwater Management Using Models – A Hands-on Course with Workshops (\$649 when registering for both Courses One and Two; early rate before April 27th \$849; professional rate \$1180)

Solving Groundwater Problems
Using a Stepwise Modeling Approach

May 3, 2016: Quantitative Approaches and Solutions to Today's Groundwater Problems

May 4 & 5, 2016: Groundwater Management Using Models - A Hands-On Course with Workshops

Breakout Session: Models for Groundwater Sustainability Plans by Dr. Tim Ross, California Dept of Water Resources

University of California Los Angeles
UCLA Ackerman Union

Contamination, Drought, El Niño, Flooding, Management, Depletion

In addition, a **breakout session** will be presented by Dr. Tim Ross from the California Department of Water Resources on the use of Models for Groundwater Sustainability Plans.

Position opening at the Florida Geological Survey

The STATE OF FLORIDA, Department of Environmental Protection- Florida Geological Survey is eager to fill an Environmental Consultant - Geochemical/Hydrologic Modeler position in Tallahassee, FL. Applications will be accepted through the end of April. The following link includes a job description and instructions for applying:

<http://publicfiles.dep.state.fl.us/FGS/FGS%5FPublications/FGS%20Library%20Documents/EnvironmentalConsultantJobPostingFla.pdf>



Chancellor Emeritus Lorne Everett receives highest Honor from American Academy of Water Resources



Congratulations to IAH member, Dr. Lorne Everett! He was notified in October by the American Academy of Water Resource Engineers that he will be the 38th recipient of the highest honor bestowed by the Academy. The induction will take place at the 2016 EWRI/ASCE World Water and Environmental Resources Congress in West Palm Beach Florida. The recognition is “...*the Academy’s highest honor, for demonstrating advanced expertise in water resources & environmental engineering, commitment to life-long professional development, significant contributions to the field of professional engineering and service*”. Dr. Everett served as Chancellor of Lakehead University in Ontario, Canada from 2000-2009. In March 2015, the Eminence Committee of the American Academy of Environmental Engineers and Scientists notified Dr. Everett that he was Board Certified in the

specialty of Groundwater and the Subsurface Environment. Lorne has published over 14 books on groundwater, holds several groundwater patents, and published over 150 papers and reports. His book, *Groundwater Monitoring*, was endorsed by EPA as establishing the “State of the Art Used by Industry Today” and was recommended by the World Health Organization for all developing countries. He received the Gold Medal from the Russian Academy, the Gold Medal from the Governor’s General of Canada and the Medal of Excellence from the US Navy. Lorne is a Fellow of: ASCE, AWRA, and ASTM. He is the Chairman of the World Federation of Scientists Panel on Pollution (headquartered at CERN Geneva) and has Chaired WFS meetings in Erice, Italy every August for the past 28 years. In the fall, the WF often meets at the Pontifical Academy of Sciences in the Vatican.

Groundwater News of Interest

UN-Water Decade Ends – *Lenny Konikow*

The UN Water for Life Decade covered 2005-2015 and ended recently. A final report, “A 10 Year Story: The Water for Life Decade, 2005-2015 and Beyond,” reviews what has been achieved, what types of actions have been more effective, and what remains to be accomplished, while acknowledging there were missed opportunities. The report covers three separate themes: (a) Basic water, sanitation and hygiene services, women’s engagement and local water cooperation; (b) Integrated Water Resources Management and Water Cooperation; and (c) global processes and actors. The report can be downloaded from: <http://www.unwaterbestpractices.org/WaterforLifeENG.pdf>

Transient Tweets – *Suzanne Pierce*

Groundwater has been in the news a lot lately, and the twittersphere lights up with updates, news stories, and banter about our favorite subterranean resource. Beyond the traditional main stream media a bevy of interesting groundwater stories can be found in blogs and alternative media sources. Some of the top hashtags related to groundwater stories include: #groundwater, #water, #fracking, #rivers, #jakarta, #china, #cawater, #drought, #bangladesh, #agriculture. And the most influential and engaging contributions are coming from @USGS, @CECHR_UoD, @circleofblue, @petergleick., @groundwaterfdn, @EuroGeosciences, and @Watertrends.

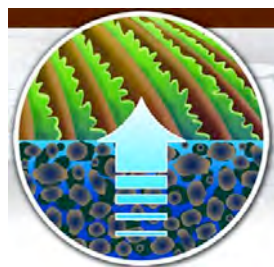


Here are a few links to groundwater headlines and highlights from the last month:

- Science Magazine reports, “A team of researchers from Washington University in St. Louis have helped discover a new chemical method to immobilize uranium in contaminated groundwater, which could lead to more precise and successful water remediation efforts at former nuclear sites.” Read the full article here: <http://scienmag.com/trap-and-neutralize-a-new-way-to-clean-contaminated-groundwater/>
- The Guardian asks “What will happen if big business doesn’t take water seriously?” The article looks to corporate responsibility programs and the role they may play during drought or in driving efficiency improvements for water use and consumption: http://www.theguardian.com/sustainable-business/2016/apr/13/worlds-biggest-companies-water-drought-shortages?CMP=share_btn_tw
- Right Relevance reported that “80% of groundwater in China’s major river basins is ‘unsafe’ for human contact” using government reported data. <http://www.scmp.com/news/china/policies-politics/article/1935314/80-groundwater-chinas-major-river-basins-unsafe-humans>

Upcoming 2015/16 Meetings and Conference Notes

– *Vicki Kretsinger Grabert and Suzanne Pierce*



Toward Sustainable Groundwater in Agriculture 2016 San Francisco, California June 28-30, 2016

Toward Sustainable Groundwater in Agriculture - An International Conference Linking Science and Policy at the interface between groundwater and agriculture, with global perspectives from all continents. This three-day international conference will again bring together leading scientists, policy analysts, policy and decision makers, and agricultural and environmental stakeholder groups to define and highlight the science, challenges, and potential policy solutions in agricultural groundwater resources management and groundwater quality protection that will provide a sustainable future at regional, national, and global scales.

Organized by University of California; <http://ag-groundwater.org/>



43rd IAH Congress, Groundwater and Society: 60 Years of IAH Montpellier, France | September 25-29, 2016

Come join all of IAH for this historic celebration! Early Bird registration closes in June 2016 for the 2016 IAH Congress, see the website for more information: <http://www.60iah2016.org/index.php/en/>



Geological Society of America Annual Meeting:

Denver, Colorado | September 25-28, 2016

If you can't make it to the IAH Congress in Montpellier, then meet with other IAH members and attend the US National Chapter Board Meeting at the GSA Annual Meeting in Denver.

Abstracts are due July 12, 2016, and you can learn more here:

<http://community.geosociety.org/gsa2016/science-careers/sessions>



American Geophysical Union Fall Meeting:

San Francisco, California | December 12-16, 2016

AGU will be hosted once again in San Francisco. Session proposals are welcome through April 20, 2016, with additional dates to be announced: <https://fallmeeting.agu.org/2016/important-dates/>



Groundwater Resources Association of California

The USNC/IAH has been a cooperating organization for a number of Groundwater Resources Association of California (GRA) events. As members of a cooperating organization, IAH members enjoy GRA member rates to attend these events. Learn more about GRA, or the programs in which IAH is participating with GRA as a cooperator, on the GRA web site at <http://www.grac.org>. A few events include:

- Time-Series and Spatial-Data Analysis for Hydrogeologic-Conceptual-Model Development and Hypothesis Testing (webinar, April 27, 2016)
- Using Disparate, Process-Oriented Data to Solve Hydrologic Problems (webinar, May 11, 2016)
- Sustainable Groundwater Management Act Symposium: Developing Groundwater Sustainability Plans for Success, June 8-9, 2016
- GRA's 25th Annual Meeting and Conference, 2016: *Groundwater Supply, Water Quality and Sustainability: The Challenges Ahead*, September 28-29, 2016



The XVI World Water Congress:
Cancun, Mexico | May 29- June 2, 2017

The XVith World Water Congress “Bridging Science and Policy” to be held in Cancun, Mexico, is jointly organized by the International Water Resources Association (IWRA), the National Water Commission of Mexico (CONAGUA) and the National Association of Water and Sanitation Utilities (ANEAS). The International Scientific Committee (ISC), chaired by Dr. Gabriel Eckstein a longstanding member of our US Chapter, welcomes papers for oral and poster sessions related to groundwater, as well as special sessions and side events, that aim to incorporate science and policy themes. Abstracts due September 1, 2016, and side-event proposals are due November 1, 2016. More information can be found at the conference website: <http://www.worldwatercongress.com/>

Contributions Invited for the Fall 2016 Newsletter

Please send contributions to the IAH USNC Newsletter editor, Suzanne Pierce at the following email address sawpierce@gmail.com or via twitter @helpfultangent. **Articles are welcome anytime. Submission before** – August 1, 2016 - are assured inclusion in the next newsletter. Please send feedback or ideas any time, either by email to sawpierce@gmail.com or via Twitter using #IAH #groundwater tags in your tweets.

About the Cover Photo: Stories about groundwater rights, management, and policy issues are frequenting the pages of most newspapers, blog roles, and twitter feeds. The cover photo is a digital image from the Texas State Archives in Austin, Texas of the Appeal to the Court of Civil Appeals, 5th Supreme Judicial District filed on April 2, 1903. This document represents the landmark case that underpins groundwater law and established the *Rule of Capture* as a cornerstone in groundwater law in the state. Today, modern groundwater management combines a complex legal cocktail that invokes rule of capture, groundwater conservation districts, numerical models, and stakeholder involvement among other elements – but it began with one case in one court. (Note: the image came from the cover of the Texas Water Development Board Report #361).

Thank You!