

June 2015 Meeting Announcement

“USING DISPARATE, PROCESS-ORIENTED DATA TO SOLVE HYDROLOGIC PROBLEMS”

Dr. John Izbicki



Wednesday, June 17, 2015

Location

Pinnacle Peaks in Colton

(Meeting Cost \$25 with RSVP; Students \$10 with proof of student ID; \$30 without RSVP)

See meeting details on pages 3 - 7

RSVP to aeginland@gmail.com by **5:00pm, Monday June 15, 2015**

INSIDE

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If you've been following the AEG Inland Empire Chapter lately, April through early May have been busy, not only for the Officers but for our members, as well. Late April was our annual joint organization meeting with SME and IGS where Kay Pitts of Aera Energy LLC gave a very interesting presentation on petroleum geology in southern California. The Cal State San Bernardino Geology Department came through again in providing an excellent speaker and venue for this annual event. The three organizations are already tossing around ideas for next year's event. Regardless, you won't be disappointed.

On May 2nd, we held our no-fee field trip into the Cajon Pass area. I've never been involved in putting together a field trip for an organization, so the experience was both apprehensive and rewarding. Apprehensive because I wasn't sure I was making the right decisions for those items assigned to me and rewarding when it turned out that we managed to have all the right pieces in all the right places. AEG needs to thank Bob Reynolds for providing a large amount of geologic and logistical information that we could build on. AEG Inland Empire Chapter could not have pulled off the field trip without the tireless efforts of Dr. Don Buchanan of San Bernardino Valley College. I lost track of how many times he ran the field trip route checking and re-checking sites, mileage, and minor details. There was a point where it seemed that we received almost daily e-mails with new and different ideas for the field trip. And of course, the field trip wouldn't have happened without our field trip leaders, Dr. Buchanan, Dr. Todd Heibel and Dr. Britt Leatham, all of San Bernardino Valley College. I was not able to attend the field trip but, I have seen some excellent pictures and received nothing but positive feedback. And, I'm glad nobody's car got towed from our designated parking area. Believe it or not, this was one of the biggest question marks all the way up to the day before the field trip.

At the end of May, AEG Inland Empire Chapter presented our Short Course, "The Many Facets of Geologic Risk" on Saturday, May 30th at the Elks Lodge in San Bernardino. Topics covered a broad scope of risk ranging from licensure, liability and contracts, liability and homeowners insurance, uncertainty in site investigations, and risks associated with surface fault rupture. The course was convened by Kerry Cato of Cato Geoscience in Temecula and Jeff Fitzsimmons of John R. Byerly, Inc., in Bloomington.

As we move out of May and into June (already), we present the David Keith Todd Distinguished Lecturer, Dr. John Izbicki, Research Hydrologist with the U.S. Geological Survey. The title of his talk is "Using Disparate, Process-Oriented Data to Solve Hydrologic Problems. Dr. Izbicki received his Ph. D. in Soil Physics in 2000 from UC Riverside and he has been working in hydrology for over 30 years.

One final note on our field trip. We would like to thank Dr. Donald Buchanan, Dr. Todd Heibel, and Dr. Britt Leatham for all of their efforts put into making our Spring 2013 Field Trip, "An Uplifting Experience: The Cajon Valley: 70Ma of Textbook Geology," a success! We would also like to thank Dr. Robert Reynolds for his contributions and Dr. Norman Meek for his guest appearance. We had over 20 participants including students, educators, and professionals. We covered nearly 80 miles, had 10 scheduled stops, and a few unscheduled as well, during the course of the day. All in attendance appeared to have enjoyed the outing. We look forward to seeing you at either or both of our upcoming events.

Best regards,

Greg Johnson, Chair
AEG Inland Empire Chapter

Note from the Editor

Students!!! If you attend the meeting, you can email me your resume after the meeting and it will be included in the next months newsletter.

Members, if you have any announcements, please email me the information by the 25th of the month. Otherwise the information will be put into the following month's newsletter. Thank you, and I look forward to seeing you at the next event.

Desmond Chung
AEG_IE Newsletter Editor

USING DISPARATE, PROCESS-ORIENTED DATA TO SOLVE HYDROLOGIC PROBLEMS

INTRODUCTION

Groundwater hydrologists have traditionally incorporated data from a wide range of disciplines into their work, often skillfully integrating geology, chemistry, physics, and other disciplines to solve hydrologic problems. Information from each discipline has strengths and limitations; collaboration between scientists having different skill sets can help interpret the disparate data sets developed by scientists from diverse backgrounds. These data sets are often process-oriented, and may incorporate results from laboratory and field-scale experiments, or integrate high-frequency data collected across a range of physical and temporal scales. As such, process-oriented data may differ greatly in scale and scope from more traditional hydrologic data collected in response to regulatory-driven mandates. For the purposes of this presentation, the specifics of groundwater source, movement, and age; trace-element occurrence, mobility, and pathways to wells; and anthropogenic contaminant movement through, and reaction within, the unsaturated and saturated zones (for example) are less important than the process-oriented approach used to understand and address these issues. The goal of process-oriented work and collaboration is to produce “more-correct” interpretations, in support of traditional field-data and model analyses, than is possible for individuals having limited perspectives and skill sets working alone or in “bureaucratic silos”. Over the years, large societally-important problems have traditionally driven basic, multidisciplinary, process-oriented research. Successful solutions to these large problems have often required the creation of diverse data sets and a high degree of collaborative interpretation by numerous researchers. For local-scale agencies responsible for addressing smaller-scale hydrologic problems, scientific collaboration is expensive, and process-oriented work often appears excessively detailed or unnecessary. Why not simply respond solely to regulatory-driven mandates by just measuring water levels or only reporting data on regulated contaminants? However, as even small-scale hydrologic problems have become increasingly complex and as regulatory demands increase, the challenge is to apply the optimal mix of innovative and basic science, collaboration, and communication to solve those problems.

SPEAKER

Dr. John Izbicki has worked for the U.S. Geological Survey for more than 30 years in Maryland, Massachusetts, and California. In 2000, while working for the USGS, he obtained his Ph.D. in Soil Physics from University of California, Riverside. Within California, Dr. Izbicki’s studies have focused on understanding the physical hydrology of coastal and desert aquifer systems primarily through the application of chemical and isotopic tracers. Recent work includes studies of managed aquifer recharge, trace-element occurrence and management in aquifers, submarine groundwater discharge, and bacterial source identification in urban streams and near-shore ocean water. Dr. Izbicki has several patents, published more than 100 U.S. Geological Survey reports and journal articles, and worked with the International Atomic Energy Agency and the Indian Government.

The David Keith Todd Distinguished Lectures are supported by GRA, sponsor contributions, speakers organizations and hosting academic institutions. Opportunities for 2015 Lecture Series sponsorship exist; please contact [loboyle \(at\) geosyntec.com](mailto:loboyle@geosyntec.com) for further information.

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The AEG Inland Empire Chapter Newsletter is a monthly publication of the Inland Empire Chapter of the Southern California Section, Association of Environmental and Engineering Geologists. For more information visit the Chapter website: <http://www.aegsc.org/chapters/inlandempire>.

Submittals: Deadline, 25th of the month. Employment notices, job position announcements, and advertisements can be posted for a minimal fee. Newsletter circulation exceeds 300 people in greater inland areas of Southern California, and elsewhere.

E-Mail Address changes:

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AEG-IE JUNE Short Course Details

Date & TimeWednesday, June 17, 2015.

Social hour 5:30 to 6:30,

Dinner 6:30 to 7:15

Announcements 7:15 to 7:30

Talk and Q&A 7:30 to 8:30

Location

Pinnacle Peak

2533 La Cadena Drive South

Colton, CA 92324

Cost

\$25 with RSVP

\$10 per student with RSVP and proof of valid student ID

\$30 for walk-ins without RSVP

RSVP**aeginland@gmail.com Deadline is Monday June 15, 2015.**Individuals who RSVP but do not attend may be charged if the final attendance does not meet the restaurant guarantee.

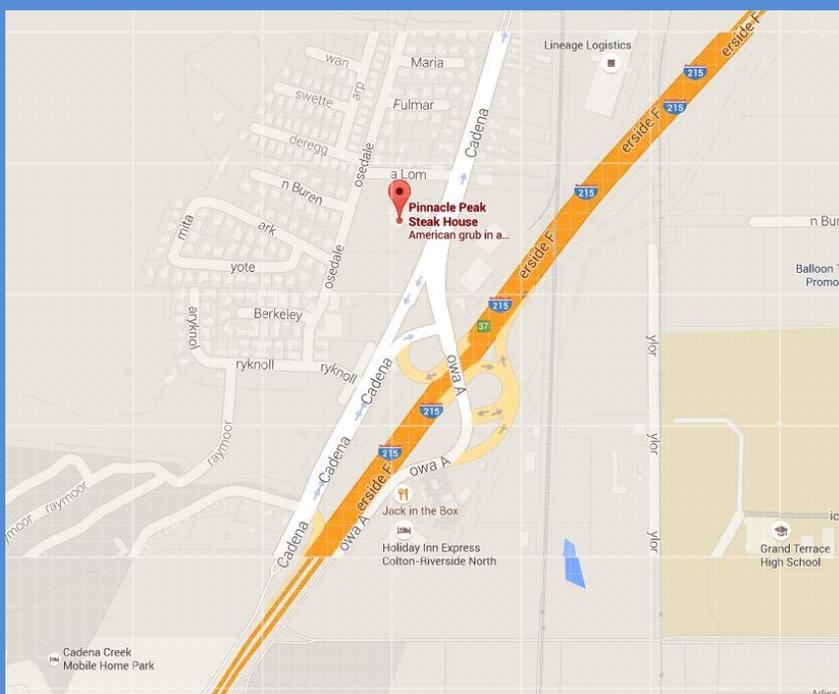
DIRECTIONS TO THE JUNE MEETING LOCATION

Directions: From I-215 Heading South:

1. Exit Barton Road and merge onto La Crosse Ave
2. Turn Right onto Barton Road
3. Turn slight Left onto La Cadena Drive South
4. Destination on right. (2533 La Cadena Drive South).

Directions: From I-215 Heading North:

1. Exit South Iowa Avenue.
2. Turn Right onto South Iowa Avenue
3. Continue onto La Cadena Drive South
4. Make a U-Turn at West La Loma Street
5. Destination on right. (2533 La Cadena Drive South).



OTHER MEETINGS

AEG-Southern California Section: June Meeting TBD.

For more information visit: <http://www.aegsc.org/>

AEG-Inland Empire Section: July Meeting TBD.

For more information visit: <http://www.aegsc.org/chapters/inlandempire/>

ASCE: (Orange County Branch). June 19, 2015 (Friday). Golf Tournament. & June 18, 2015 Topic: **“Environmental Programs Panel (OCTA, TCA, and OCPW”**.

For more info visit: <http://www.asceoc.org/upcoming-events>.

ASCE: (San Bernardino-Riverside County Branch). June 24, 2015 (Wednesday). Topic: **“Annual Awards Banquet”**. For more info visit: http://www.asce-sbriv.org/asce_new/calendar.html.

ASCE: (San Diego County Branch). TBD For more info visit: <http://www.asce-sd.org/>

EERI: (San Diego). TBD For more info, visit: <http://sandiego.eeri.org/>

GRA: See Website for Meetings. For more info, visit www.grac.org/

IGS: July Meeting TBD For more info visit: <http://www.inlandgeo.org/>

LA Basin: June Meeting TBD For more info visit: <http://www.labgs.org/>

SCGS: July 6, 2015 (Monday) Meeting TBD. For more info visit: <http://www.scgs.org/>.

SME: June Meeting TBD For more info visit: <http://www.smenet.org/SouthernCalifornia/>

SDAG: July 15, 2015 (Wednesday). Topic: **“TBD”**

Speaker: **Diana Lindsay** For more info visit: <http://www.sandiegogeologists.org/index.html>

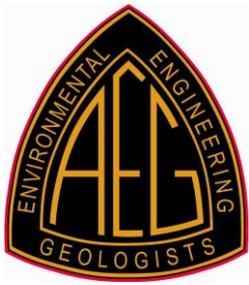
ANNOUNCEMENTS

ANNOUNCEMENTS & OTHER MEETINGS

2015 membership dues: If you have not renewed your AEG membership for 2014 please take a moment to do so. Membership can be renewed easily and securely at www.aegweb.org. We thank you if you have already renewed your membership for 2015.

Part-time faculty position available: CSU San Bernardino, Department of Geological Sciences

We seek an instructor to teach a large-enrollment (280 students) general education course on Energy during Spring quarter 2016 (April 4 - June 17). It is currently scheduled to be offered on TTh 10 am to noon, but it might be possible to offer it as an evening class. Because of the large enrollment, it carries a workload credit of 6 weighted teaching units (instead of the normal 4 units), to allow for time spent helping students outside of class. If interested, please contact Sally McGill at 909-537-5347 or smcgill@csusb.edu.



AEG MEMBER BENEFITS

- You find value in our **conferences** - both [Annual Meetings and Specialty Conferences](#) - and in the **technical knowledge** and **continuing education** you [receive at these meetings](#).
- You appreciate **networking opportunities** in local settings, at [Section meetings](#), and at national conferences. With over **3,000 members**, AEG [provides you with access to a wide network of Environmental and Engineering geology professionals](#).
- You love our **publications** - the [AEG NEWS, the Environmental & Engineering Geoscience Journal, and the AEG Insider](#) - with their [relevant geoscience information, updates on AEG activities, and engaging scientific interest stories](#).

With benefits like these, of course you want to be part of AEG! And we encourage you to spread the word - talk to your co-workers, classmates, and friends about AEG and all it has to offer.

Remember:

- Student Membership is FREE
- Graduating students receive their first year of full membership for FREE as our Graduation Gift to you (Contact aeg@aegweb.org to receive your gift)

- New Membership is just \$95 (First Year of Membership only)

- If you have - thank you! Full members receive discounted registration for [Annual Meetings and Specialty Conferences](#)

If you have any questions regarding your membership status or would like to [Join or Renew today](#), please call AEG Headquarters at 303-757-2926 or email AEG@aegweb.org.