



# AEG SACRAMENTO

## Monthly Bulletin and Meeting Announcement

### *Sunny Weather ahead...*

It finally stopped raining! And it was just in time for our **Drilling and Sampling Technologies 2006 Workshop** to be a tremendous success! We had a great day out there! Be sure to read Eric Chase's board message this month for more details from that event.

Well Spring may have finally arrived here in Sacramento, but the days are warming up fast and we've got some sunny weather ahead! The outlook for AEG Sacramento Section is looking sunny too, as we've got some great speakers lined up for the coming months and we continue to be financially strong, so we can continue our funding of student scholarships and member benefit events.

Memorial Day is coming up! One day after Memorial Day is our next section meeting. We've got a good speaker lined up and we're even having our meeting right here in Sacramento this month! Dr. Wempe from Schlumberger Water Services is coming to present the latest info on high resolution borehole geophysics and its application in artificial recharge projects. So don't forget to come on out and join your friends and colleagues for another great night of food, fun and information you can use!

---

**Section Meeting Date: May 30, 2006**

**Meeting Location:** **Sacramento Brewing Co.**, 7811 Madison Ave, Citrus Heights. Directions: Take I-80 or Business 80 east, Exit Madison Ave. Make a U-turn at Sunrise and a right turn at Village Way...then look for the big Egyptian tomb.

**Meeting Schedule:**

- 5:30 - 6:30 Sign-In & Social Hour
- 6:30 - 7:30 Dinner & Announcements
- 7:30 - 8:15 Speaker Talk & Slide Show
- 8:15 - 8:30 Questions & Answers

## *High Resolution Borehole Geophysics Applied to Artificial Recharge Projects*

Wendy Wempe, Senior Hydrogeologist, Schlumberger Water Services

### **Abstract:**

Sustainable water management relies on the ability to store water during low water-yield time periods. A viable alternative to storing water in costly surface water reservoirs where evaporation rates can be astonishingly high is the storage of water in aquifers using artificial recharge. Artificial recharge of aquifers is currently being used in at least 32 states in the U.S. and at least 26 countries worldwide. The dominant mechanisms for recharging an aquifer are the use of injection wells and infiltration basins.

A key component to any artificial recharge project is detailed characterization of the hydrogeology. Important information to be understood during the characterization phase is (1) the storage capacity of the aquifer, (2) where within the aquifer the recharged water will be stored, (3) what the groundwater flow rates are in the aquifer, and (4) the interaction of the recharged water with the native water and the aquifer matrix.

Advanced geophysical technology that has traditionally been used by the petroleum industry provides some of the best available technology for characterizing the subsurface in great detail. This presentation will demonstrate the use of high-resolution geophysical logging technology to help characterize aquifer recharge sites in California and elsewhere.

---

### **Wendy Wempe, PhD, Senior Hydrogeologist Schlumberger Water Services**

Wendy Wempe joined Schlumberger Water Services in Sacramento as a Senior Hydrogeologist in 2006. Her primary background is in characterizing aquifer systems using geophysical data. Wempe received a B.S. in Earth Sciences from University of California, Santa Cruz in 1994, and a Ph.D. in Geophysics from Stanford University in 2000, where she developed new theory for constraining aquifer transport properties using geophysical data. Afterwards, she worked as a research associate at the Cooperative Institute for Research in Environmental Sciences in Boulder, continuing the development of a new technology that identifies changes in fluid saturation and granular wettability using seismic attenuation data. Later, she developed and co-taught "Groundwater Law and Hydrology", an advanced law seminar at the University of Colorado, Boulder. The development of this course led her to providing introductory hydrogeology public short courses and in-house training programs to water lawyers, policy-makers, and resource managers through a retired consulting company she created called Hydro Info.



# A Message from Your Board

by  
Eric Chase

Spring is here at last, and with it the level of activity surrounding me and our Section increases daily. Your Executive Board has been quite busy over the past several weeks preparing for and conducting the Spring Workshop, Drilling and Sampling Technologies 2006. On April 28th, an absolutely gorgeous spring day, nearly 70 people and 17 vendors convened at the Wildlands Fire Training and Conference Center at McClellan Business Park for this workshop. Not only did the vendors have on display an impressive array of drill rigs of all kinds, along with support vehicles, downhole instrumentation, and tools, they also made a series of technical presentations that ran in three meeting rooms throughout the day. A number of vendor exhibit booths were also present with technical literature and expertise on hand. Attendees were unanimous in their praise of the workshop, and many of the vendors asked me and your other Executive Board members if we were going to repeat this workshop next year. Based on the revenues generated by the event, which will be put to very good use (stay tuned for upcoming field trip announcements, scholarship awards, etc.) perhaps more importantly because of the positive feedback we received from the attendees, the answer is most likely yes! I say most likely, in that we will need volunteers from our membership to assist us in order for it to be this successful again. It is most appropriate to recognize the efforts made by your Executive Board in pulling this great success off. They are John Pfeiffer our Vice Chair, Nate Manley our Section Secretary, Chani Liembach our Section Treasurer, Marcia Kiese our Section Legislative Chair, Pat Fischer our Section Membership Chair, and Keith Millard our Section Scholarship Chair. Not only can we look back at the workshop with no small amount of pride, we actually had a lot of fun doing it!

For our May meeting at the Sacramento Brewing Company/Oasis (Sunrise at Madison), our speaker will be Dr. Wendy Wempe of Schlumberger, who will speak on the use of high resolution geophysical techniques for characterization of groundwater basins for use in ground water storage by artificial recharge. This topic is an increasingly critical issue in the American west, where evaporation greatly plagues our surface reservoir storage, and consumptive use is decimating our aquifers year by year, especially in the recent years of drought. We look forward to seeing you at the May meeting! One final note, our June meeting is being postponed until Wednesday, July 12th, so that we can host AEG's President, Dr. Darrel Schmitz of Mississippi State University, who will speak to us about the aftermath of hurricane Katrina. Darrell is an eyewitness to these events, living and working as he does in Biloxi, so don't miss this eye-opening presentation.

## ***Hot Off the Press!***

Commentary on Paul Sweeney and the BGG

By Eric Chase

I attended the March meeting of the Board of Registration for Geologists and Geophysicists (Board), along with a dozen or so colleagues and friends. It should be noted that the Board is in a somewhat decimated state, with only four active members where there should be seven, and with only one technical member where there should be three. The entire agenda for this meeting was one item, a review of the performance of the Executive Officer, Paul Sweeney. In the public comment portion of the meeting there were eleven witnesses who gave testimony regarding the issue. The proceedings were videotaped and audiotaped. Among the statements made by those witnesses were allegations of harassment of Board staff, destruction of public documents, alteration of meeting minutes, drunkenness in the workplace, and other behaviors detrimental to the proper functioning of the board. Some general themes ran through all the statements made to the Board that day. Among these were: 1) that the Executive Officer to the Board should be a licensed professional geologist in California, and 2) there is no trust in the current Executive Officer among licensed professional geologists in California. The lack of trust I refer to arises, in my view, from testimony regarding Mr. Sweeney's protracted attempt to set Board policy, by single-handedly attempting to eliminate the California-specific examination (CSE) from the P.G. license exam process, reportedly using manipulative tactics, quashing debate, skewing results of workshops, and generally misrepresenting the facts, in attempting to trick the Board into supporting his position to eliminate the CSE. These are not my allegations. Testimony on these actions has come from many licensed professionals, and is on the record.

Where did the Board get the idea that the Executive Officer, who is not a geologist, licensed or otherwise, had standing to even enter a discussion of the merits of the CSE? Not only did the Board give that standing to the Executive Officer, it relied entirely on the Executive Officer to be the arbiter of debate on the issue. Until the March meeting, all commentary on the issue (letters, e-mails, etc.) was run through the Executive Officer before going to the Board, allowing him to edit that commentary to his liking. No checks and balances were in place. Thus, the Board had a badly distorted picture of the issue, and thus the Board made the ill-advised decision to rescind the CSE, effectively eliminating protection of the public which only a robust and rigorous examination process can provide. Even more sadly, despite the appearance of eleven witnesses, all licensed professionals, who unanimously did not support, for various reasons, the continuation of Mr. Sweeney's employment as the Executive Officer, the Board voted to retain his services.

This was, in my opinion, an egregious error in judgment by the Board, a decision which places the Board's trust in Mr. Sweeney, and does not appropriately serve the public interest. In response to this action, several of my most eminent colleagues and friends in our profession have since made application through the Governor's office for a technical seat on the Board. The aim is to strengthen the Board, to provide better oversight of the actions of the Executive Officer, and to help the Board serve more effectively the interests of the people of California, namely protecting public safety. I fully support replacing the current Executive Officer with a knowledgeable and hopefully objective licensed Professional Geologist in the very near future.

# March 2006 AEG Meeting Facsimile Transmittal Sheet

(or e-mail to the address below)

To: Lisa Breckenridge (Wallace-Kuhl & Associates, Inc.)  
email: [LBreckenridge@wallace-kuhl.com](mailto:LBreckenridge@wallace-kuhl.com)  
Phone: (916) 372-1434  
Fax: (916) 290-5429 From: \_\_\_\_\_

**Or You Can Sign Up Online at: [www.aegsacto.org](http://www.aegsacto.org)**

**Subject: May 2006 AEG Sacramento Section Meeting**

**Date: May 30th, 2006**

**Place: Sacramento Brewing Company**  
7811 Madison Ave, Citrus Heights, CA  
(For directions, see page 1)

**Time: 5:30 - 6:30 PM - Sign In and Social Hour**  
**6:30 - 7:30 PM - Dinner & Announcements**  
**7:30 - 8:15 PM - Speaker Talk and Slide Show**  
**8:15 - 8:30 PM - Questions and Answers**

## On the Menu:

	Members (w/RSVP) / Non-members & walk ins
<i>Vegetarian Lasagna</i>	\$18.00 / \$20.00
<i>Champagne Chicken</i>	\$23.00 / \$25.00
<i>Steak and Shrimp</i>	\$28.00 / \$30.00
<i>Honey Pecan Salmon</i>	\$28.00 / \$30.00

Notes: All Students with RSVP Eat For Free!  
Student Walk-ins: \$10.00  
Alcoholic beverages are available for those 21 and over on a cash basis.

**Special thanks to Youngdahl Consulting Group, Inc.,  
for their contribution to support student attendance  
at the May AEG Meeting!**



# ***AEG Sacramento 2006 Calendar of Events***

January 31st	Dr. Lisa Hammersley, Sacramento State University The Clear Lake Volcanic Field
February 28th	Jim Flores and David Siederquist NOA: The latest update and a demonstration of PLM
March 28th	David Bieber and Bob Anderson "An Engineering Geological Tourist's Introduction to South Africa's Geohazards"
April 25th	Ross Guenther Reopening of the Idaho-Maryland Mine, Grass Valley, CA
April 28th	Drilling and Sampling Technologies 2006 Workshop
May 30th	Dr. Wendy Wempe, Schlumberger Use of Geophysical Techniques in Gound Water Basin Characterization and Monitoring
June	No Meeting
July 12th	AEG President Dr. Darrel Schmitz
August 29th	TBA
September	No Meeting
October 24th	3rd Annual Student Night Speaker TBA
Oct. 30 - Nov. 4	AEG 2006 National Meeting; Boston, MA "NORTHEAST ENGINEERING GEOLOGY: FROM TILL TO FILL"
November	Thanksgiving Holiday, No meeting
December	Joint AEG-GRA Holiday Meeting Speaker and Date TBA