



ASSOCIATION OF ENVIRONMENTAL & ENGINEERING GEOLOGISTS
Southern California Section
"Connecting Professionals, Practice, and the Public."

NEWSLETTER – June 2010

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Upcoming AEG Meeting Date: *Tuesday, June 8, 2010*****

Meeting Location: Steven's Steakhouse

5332 Stevens Place, Commerce, CA 90040

Meeting Time: 6pm Social Hour, 7pm Dinner, 7:45pm Presentation

Cost: \$30 per person with reservations, \$35 without reservations, \$15 with a valid Student ID.

Reservations: Please call or email Dave Perry at dlperry@mactec.com or call 323-889-5326

Speaker: Jeffrey Keaton and Richard J. Roth, Jr.

Topic: An Insurance Perspective of Landslide Inventory Maps and a Simple Engineering Geological Approach Useful for Insuring Landslides

****** Greetings, AEG members! This month we have two seasoned practitioners making a presentation on a cutting edge topic, plus new info from our Chair regarding the BGG. See you in Commerce! ******

Chair's Column

By Peter Thams

Our April and May meetings were held at Fox Sports Grill in Westlake Village, which has turned out to be nice venue with good food and modern equipment. Just plug the laptop into the wall-mounted receptacles and the presentation is displayed at both ends of the room – no projector/screen/cable to lug around. We'll be back at Steven's in Commerce for our next meeting and in July we will return to Victorio's in North Hollywood to accommodate membership from other areas. I expect to keep this rotation going for the rest of the year, and possibly get down to Orange County for the joint meeting with South Coast Geological Society. I hope everyone will try to attend a meeting in their area and we will try to get our meeting notices out in time for you to plan ahead. It's been a busy first quarter (plus) and there's a lot to discuss. I'll try to bring you up to date on issues related to the BGG/BPELS, and the mid-year Board of Director's meeting I attended in St. Louis at the beginning of May.

Midyear Board of Directors Meeting in St. Louis: I haven't received the minutes summary from the meeting and intend to address issues discussed more completely in an upcoming newsletter. The main topic and action item was sponsorship for the annual meeting in Charleston, South Carolina, and at the section level for dinner meetings, student participation, etc. The annual meeting has been very successful over the past few years and has really helped to keep the national organization, as well as the hosting sections, operating in the black. Sponsorship and advertising have fallen off along with everything else under the bleak economic conditions - hopefully this will be turning around soon - and we'd like to revive these as sources of revenue. Realizing that the annual meeting in Charleston isn't going to generate much local interest, except with larger, national service providers, there are advertising opportunities that could benefit most suppliers you deal with on a regular basis. AEG will be launching a revamped website soon which will improve visibility to advertisers (we currently get 20,000 hits per week), we have six issues of the AEG News, monthly newsletters from the section and from the Inland Empire Chapter, and access to membership at monthly meetings. Sponsorship is currently an underutilized resource and we need someone to coordinate this effort. I'm looking for volunteers to Chair and help form a sponsorship committee to pursue this. I have sponsorship packages for the annual meeting that I can email to anyone interested, but we also need to come up with some ideas for local participation. Anyone? Please contact me at thams.peter@gmail.com if you would like to help.

California Association of Professional Geologists (CAPG, Inc.): As you may recall CAPG, Inc. was formed to respond to assembly bill AB 4x 20, which eliminated the Board for Geologists. Efforts to fight this bill were mounted through legislature, and through the court with petitions for an injunction and declaratory relief on constitutional grounds. As most of you are aware, the injunction wasn't granted and the BGG was disbanded and staff reassigned. That left the petition for declaratory relief and a writ of mandate to reinstate the BGG if the petition prevailed. This petition has been dismissed by CAPG, Inc., with prejudice (can't re-file the petition), in a settlement with the Attorney General's office.

The decision to dismiss the lawsuit was made based on two considerations (1) CAPG, Inc. does not have the resources to continue and is not likely to raise them, and (2) the path to reestablishing the BGG is likely shorter through legislature than through the court at this point. Even if the BGG was reestablished by the court it still must be maintained by legislature through the Sunset Review process. Whether or not the lawsuit would have succeeded is anyone's guess, there were rulings by the court that were not favorable to CAPG, Inc., but they were appealable and the court did allow CAPG, Inc. the option to amend the complaint. Some have questioned whether or not it was worthwhile to file the suit or if filing the suit put the profession in a negative light. We have learned that not only is this standard operating procedure, but that no one gets anything in Sacramento without fighting for it. This is the process and doing nothing gets you nothing. The lawsuit raised awareness of the issue and gave us leverage to at least be heard and taken seriously by BPELS and legislature. From our meetings, interactions and conversations with various legislators and staff (both republicans and democrats), and with others in power (see previous columns about AB1431) we have learned that support for the BGG is nearly unanimous and non-partisan. And that by standing up for what's right in a thoughtful and cognizant manner, and by not doing what we're told when what we are told to do is clearly wrong, we've earned the respect of those who matter and even from those who would rather that we go away.

We're very appreciative of the efforts of our attorneys Mary Deustch and Kim Taylor, who took on a big challenge on a shoestring budget, and performed professionally throughout. Kim argued brilliantly in court lending credibility to the petition and earning the respect of both the Attorney General's office and the court. In fact, the Superior Court judge commented that interesting issues had been raised, which was echoed by the Attorney General's office in a communication to Kim and Mary. It was likely Kim's effort in court that convinced the Attorney General's office to settle without pursuing costs from CAPG, Inc. We owe Mary and Kim many thanks.

We also want to thank all of those who contributed monetarily to the effort, supplied declarations, and showed up at hearings. We wish we had been more successful in the initial stages and had been able to continue to the actual trial phase. We will continue to work with the legislature toward reinstating an independent BGG and toward facilitating BPELS' effective administration of the Geologist and Geophysicist Act.

Working with BPELS and Assembly Bill AB1431: Efforts to get representation for geologists and geophysicists on BPELS have been disappointing as reported in previous columns. Without rehashing the entire process, there are still no licensees or even geologists on staff at BPELS and the prospect of getting even one geologist on the Board through AB1431 appears doubtful, since it increases the size of the Board by two and may face a veto from the Governor. There is, however, some good news. At the last BPELS meeting, the board voted to form a Technical Advisory Committee (TAC) dedicated to geologic matters and selected two members, Eldon Gath and Hugh Robertson, from the Southern California Section to serve. Although, as of the last time I spoke with these gentlemen neither had been officially notified of their appointments and scheduled meetings have yet to be announced. BPELS is also soliciting resumes for subject matter experts to assist with exam development. Those interested are encouraged to submit applications. Additional information can be found at <http://www.geology.ca.gov/licensees/smeswanted.shtml>. It's encouraging that input from

the geologic community is being sought for these committees, but it is still disappointing that committees with volunteers vetted by the former BGG were not utilized for these purposes.

AEG will continue to monitor developments at BPELS and will comment to the Board and Executive Officer Dave Brown as deficiencies are identified or operational improvements can be made. One thing that comes to mind is the recently released *Guide to Engineering and Land Surveying for City and County Officials* (http://www.pels.ca.gov/pubs/local_officials_guide.pdf), an informative publication which details the responsibilities of building officials with respect to the Professional Engineers Act. This publication was likely in the works prior to the elimination of the BGG, and is likely the reason for the geologists and geophysicists were not included. Similar guidance with respect to the Geologists and Geophysicists Act is desperately needed for reference at the local and state level. A letter requesting an update to the publication to include geologists and geophysicists, or a separate publication addressing the geoscience practice acts, be prepared is being drafted and will be sent to Dave Brown and the Board soon.

State Mining and Geology Board (SMGB): Questions continue to be raised regarding the potential for the State Mining and Geology Board to assume the responsibilities of implementing the Geologists and Geophysicists Act. It has been noted that AEG has historically opposed merging the BGG with SMGB on the grounds of creating a potential conflict of interest between enforcement responsibilities and revenue generation for the State. Some have opined that AEG's opposition to such a merger and a resolution adopted by BGG are responsible for the elimination of the BGG. What we've been told is that opposition to a merger between BGG and SMGB from others had more to do with transferring the Geologists and Geophysicists Fund from the Department of Consumer Affairs (DCA) to the Department of Conservation (DOC) than anything else.

Regardless of what actually triggered the elimination of the BGG, the debate that needs to be taking place really goes back to the potential conflict of interest. Should the agency responsible for generating revenue for the State by granting permits for mineral exploitation also be in charge of enforcing professional behavior with regard to public safety? An easy parallel to consider is the Minerals Management Service, which has been in the news for the last couple of years, and particularly so in the last few weeks. I continue to believe that regulation of licensure belongs under the DCA and that we should continue efforts to reestablish the BGG under DCA or to get appropriate representation at BPELS.

Lobbying and Legislative Efforts to Reestablish BGG: Part of the problem with getting appropriate representation on BPELS has been resistance and opposition from lobbyists for the engineering profession, who are very effective. It isn't necessarily that engineers oppose geologic practice, overlapping practice issues notwithstanding, it's more that they are protecting their own interests. Opposition has been based on increasing the size of BPELS that is felt will attract unwanted attention during upcoming sunset review proceedings, reducing representation of engineers on BPELS (some of which has been shown to be redundant), and the perception that BPELS' responsibility for implementing the Geologists and Geophysicist Act is only temporary. The same groups that have opposed the various mitigations proposed to address the inadequacies of AB4x20 have stated that they would support the reinstatement of the BGG.

Other problems, which are more to the point, are the relative lack of lobbying on behalf of the geoscience professions and the lack of understanding of geology and geophysics as applied sciences, rather than academic pursuits to be utilized on an "as needed" basis, where the need is not clearly defined or fully grasped. The shortcomings of AEG's lobbying efforts to date, and those of the profession as a whole, are really the most important lessons learned from this recent experience. We are going to have to step up our efforts on this front if we have any hope of reestablishing the BGG, which our experience over the last year indicates is the path of least resistance.

As previously reported, over the past nine months AEG has met with several legislators in both the Senate and the Assembly to discuss reestablishing the BGG. On the whole the reception has been favorable and timing appears to be the biggest issue. In a meeting with Senator Wyland in February, he indicated a willingness to author and carry this legislation, but not until the next session when a more receptive governor will be in office. So the plan is to revisit the issue this fall in hopes of having a sponsored bill ready for the legislative session beginning next January.

In the meantime we need to make some choices and decisions on our lobbying efforts. First of all, we have been informed by Judy Wolen, our current lobbyist, that the retainer we are paying only covers a maintenance level of service and that level of service will not be adequate to cover the legislative effort needed to reestablish the BGG. We haven't discussed additional fees with Judy, but it will likely be more than double what is being paid at this time. Secondly, and although we have been provided with invaluable service from Judy for several years without which the Board may have been eliminated years ago, relationships Judy has with other clients and professions that have previously not been an issue are becoming potential conflicts of interest that neither AEG or Judy is comfortable with. We have identified another firm that currently represents other geoscience organizations with whom we have common, albeit not identical, interests. We will need to decide to move forward with Judy or retain another lobbyist by this fall.

As it stands right now, lobbying fees are shared relatively equally among the three California sections and are paid solely from section dues. Historically, the section dues have been sufficient to cover lobbying costs with a surplus for other expenses. This is no longer the case. A recent decline in membership has reduced the section income to approximately the level of our retainer. We have to consider raising section dues to \$75/yr to maintain the needed exposure for the profession in Sacramento, or even \$100/yr temporarily to meet the challenge coming this fall and next year. Other professions are fighting very hard to maintain their standing and we need to do the same. Remember that licensure is considered the number one priority for the California sections of AEG and for the national organization. We are seeking participation from national, but we need to do as much as we can on our own.

An Insurance Perspective of Landslide Inventory Maps and a Simple Engineering Geological Approach Useful for Insuring Landslides

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Landslide damage is excluded from essentially all types of private property insurance. This lack of availability of insurance coverage for landslide risk probably results from a combination of factors, such as insurance companies not being able to develop accurate models of landslide hazard (location, magnitude and frequency of occurrence) or extent of damage to buildings sitting on landslides that move (potential loss). Landslide maps, to actually portray hazard, must show the probability of landslides occurring in a given area within a time interval or with a specific frequency. Maps showing the locations of old landslides may document past instability and thereby be used to imply potential future instability. However, without the magnitude and frequency components, inventory maps are not hazard maps. Landslide inventory maps that incorporate probabilities of processes that can trigger movements, such as rainfall thresholds or levels of earthquake shaking, imply frequency but omitting magnitude. Furthermore, not all storms or earthquakes trigger slope movements, and a factor-of-safety approach defines even the slightest amount of movement as 'failure'.

Landslide inventory maps showing boundaries of past landslides are analogous to maps of automobile-accident locations: X marks the spot of the accident, but without additional details (e.g., characteristics of vehicles and drivers) such maps cannot be used by insurance actuaries to define risks or set prices for automobile insurance policies. Reliable landslide inventory maps would be useful for defining areas free of past landslides or unstable slopes where insurance companies could offer landslide coverage as part of general all-peril policies. In other landslide areas, whether insurance would be offered would depend on the magnitude and frequency components of landslide hazard maps. Landslide inventory maps also may have insurance value to private and public agency owners of buried utilities (e.g., water and sewer) that could initiate landslides or exacerbate damage if they leaked. Surveillance and maintenance activities could be conducted more frequently in areas shown on inventory maps to have landslides. Emergency management agencies may plan for improved disaster response in known landslide areas thereby potentially reducing some risks.

Early seismic hazard maps consisted of zones (0-3) based on incidence of damaging earthquakes. Modern seismic hazard maps display continuous contours of basic ground motion associated with an annual probability of exceedance ($p=0.0021$). Supplementary geologic data are used to account for site conditions, enabling the insurance industry to develop loss models needed to offer earthquake insurance. A significant step toward insuring landslides would be hazard maps similar to the early seismic hazard maps. The 2008 Joint Technical Committee

(JTC-1) guidelines were developed for comprehensive landslide susceptibility, hazard, and risk zoning for land use planning and disaster management. Possible use of the guidelines for insurance needs is implied simply by the availability of hazard and risk maps. Areas without histories of slope movements and without topography, geology, or geomorphology conducive to slope movements might be Zone 0 ($p < 0.01$). Areas with histories of slope movements might be Zone 3 ($p > 0.01$). Zone 1 would be areas hilly areas where no landslides have occurred and none are expected based on geotechnical study ($p < 0.01$). Zone 2 would be hilly areas where no landslides have occurred but slope-movement susceptibility is real based on geology or geomorphology ($p \approx 0.01$). Geoprofessionals with qualifications listed in the JTC-1 guidelines should be able to perform this simple landslide hazard zonation. Private insurers might offer policies for properties in Zones 0 and 1 but not in Zone 2 unless damage mitigation measures were implemented and maintained, and then only for certain types of construction and uses. Policies would not be offered for property in Zone 3 without comprehensive geotechnical analysis and hazard and risk mitigation. The success of earthquake insurance suggests that improvements will be made in simple landslide loss models once landslide insurance becomes a viable product for private insurers.

Jeffrey R. Keaton is a Senior Principal Engineering Geologist and Vice President in the Los Angeles office of MACTEC Engineering and Consulting, Inc. He has a BS degree in Geological Engineering from the University of Arizona (1971), a MS degree in Engineering (Geotechnical) from the University of California, Los Angeles (1972), and a PhD degree in Geology from Texas A&M University (1988). He is registered as a Professional Engineer and as a Professional Geologist several states.

Keaton has been employed by consulting firms for nearly 40 years (MACTEC since July 2005, AMEC Earth & Environmental from 1988-2005, and Dames & Moore from 1970-1988). He specializes in quantifying hazardous natural processes for siting and design of all types of facilities in all geologic environments. He has remained active in professional societies throughout his career, serving as Chair of the Engineering Geology Division of GSA, President of AEG, chair of two committees and a section at Transportation Research Board. Currently, he is a member of the Technical Coordination Council of the Geo-Institute of ASCE, chair of IAEG Commission No 1, *Engineering Geological Characterisation and Visualisation*, and a member of the Engineering Accreditation Commission of ABET, Inc.

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Chapter Meetings

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For the latest information and updates, please visit <http://www.aegsc.org/chapters/inlandempire/>

Central Coast:

For the latest information and updates, please visit <http://www.aegsc.org/chapters/centralcoast/>

San Diego:

For the latest information and updates, please visit <http://www.aegsc.org/chapters/extremesocal/>

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Company name, address and contact information are presented in AEG News and section receives 10% of donation. A national donation does not yield a line in our local section newsletter.

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Many of our members use this index to find colleagues to assist with projects or to recommend their services to others. Don't miss your chance to be included in the *2010 Annual Report and Directory*. Reservations are due by December 31 to secure your listing.

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You can order online at

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or call Cathy Wilson at 303-757-2926.

* The deadline for submitting an advertisement for next month's newsletter is June 26.

YEAR 2010 CONTRIBUTORS NEEDED

Contributions from corporations and individual members are greatly appreciated. Contributors will be listed in our newsletter throughout the year and can post their logo or business card in the newsletter if so desired. Please mail contributions made out to **AEG** to our section treasurer, Dave Perry.

2010 MEMBERSHIP RENEWAL

For those of you who have not yet renewed **(the deadline was November 1)**, are unsure about your membership status, or did not receive your membership dues statement, please contact AEG Headquarters at www.aegweb.org. You can renew your membership online. Please update your membership if you wish to continue to receive future issues of the newsletter.

*****NOTICE: Proposed New AEG Publication*****

WHO'S WHO in SO CALIFORNIA ENGINEERING GEOLOGY
The Evolution of Engineering Geology in Southern California

Have you ever wondered "Whatever happened to___?" or "I've heard of ___, who is he?"

The undersigned have decided to try to prepare an internet publication with the above title, which will include biographies of engineering geologists in southern California. We would like you to share your biography (autobiography) with other EGs. If you have worked on an interesting project, others would like to know about it.

If we limit each autobiography to 3 pages of text, plus photos, this publication would be more than 1,000 pages long. Therefore, we plan to utilize a proposed new AEG Foundation internet website, where there is no limit to total pages, and we can use color photos. Also, this new website will be available for no-charge access, worldwide, thus spreading the word on the history and evolution of engineering geology, and southern California's immense contribution.

We suggest (not require) three criteria for inclusion: 1. That you are a CA licensed CEG; 2. That you are now or once were a member of AEG; 3. That you have enough years of professional experience to relate one or more significant projects you have worked on. We believe there are more than 250 such EGs in southern California. This will be an evolving internet site where new autobiographies can be added.

We will also include Memorial biographies of past notable geologists in southern California. So far, we have identified 30, including John Buwalda, Ian Campbell, Tom Dibblee, Rollin Eckis, Perry Ehlig, Richard Jahns, John Mann, F.L. Ransome, Charles Richter, Dottie & Marty Stout, Gene Waggoner. Biographies of 14 of these notable geologists were published for the recent AEG Annual Meeting, in "History of the Association's First 50 Years," available from AEG HQ, contact Julie Keaton or Becky Roland.

Here is a CHECKLIST FOR YOUR AUTOBIOGRAPHY:

Complete NAME, address, phone, email; BIRTH DATE and place; UNIVERSITY(s) attended, major(s), degree(s), year(s); MILITARY service; FIRMS/AGENCIES you worked for; up to 3 significant PROJECTS you worked on; possibly relate a serious or humorous INCIDENT; a MENTOR you may wish to acknowledge; professional SOCIETIES, HONORS, AWARDS; HOBBIES; up to 5 PUBLICATIONS; PHOTOS of yourself and of projects (scanned images preferred).

So, if you wish to be included in this new internet publication, prepare your autobiography and email it with photos to: allen@hatheway.net and in the Subject box, type: So. Cal. Geologist. Or mail it to Allen Hatheway, 10256 Stoltz Dr., Rolla, MO 65401. Please, no more than 3 pages of text, single-spaced, Times New Roman, 12 pt.

Please pass this notice on to those you may know who no longer get this Newsletter.

In the spirit of camaraderie, we thank you,

Richard Proctor
 Allen Hatheway
 David Rogers
 Larry Cann
 Bob Lynn

EMPLOYMENT OPPORTUNITIES & ADVERTISING

The California Geological Survey is hiring engineering geologists.


CGS needs to recruit and hire new engineering geologists to maintain staffing levels as staff retires or moves on. This may not be the obvious time to look for a job with the state, but CGS gets most of its funding through special funds and contracts, not the general fund. When CGS needs to hire, an announcement is posted on the State Personnel Board's "VPOS" web site (<http://jobs.spb.ca.gov/wvpos>). Searching for "Engineering Geologist" there will find the positions that the State is now accepting applications for. Those currently include a position in CGS's Geologic Mapping Program. That position is listed as within the Department of Conservation. See the web page for the full job description and application instructions. Please note that to be hired by the state, a candidate must pass and place in the highest three ranks on a civil service exam. The Engineering Geologist exam, jointly developed by the Department of Conservation and the Department of Water Resources, is an online qualifications appraisal. It is possible to take the exam at the same time you send in an application, but both steps are required. The online application and "supplemental questionnaire" (exam) are at this web page.

<http://jobs.ca.gov/CASPB/sup/BulPreview.asp?R1=095699&R2=00103756&R3=9PB02>

http://jobs.spb.ca.gov/wvpos/more_info.cfm?recno=415797

Chris Wills
Supervising Engineering Geologist
California Geological Survey
801 K St. MS 12-32
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