Spring Already!

For those of us with seasonal allergies, I think we can all agree that Spring is in full swing for 2008! It has been a busy first few months of this year for us and we certainly hope that all our members of the AEG Sacramento Section are off to an equally busy and successful start! Despite your busy Spring schedules and allergy woes, you should be sure to take time to attend this month’s meeting for AEG. This month we are very pleased to have our very own Byron Anderson presenting a case study discussing the engineering challenges of residential development on former mine lands in the Mother Lode. So be sure to take your allergy medications and block out a few hours of time in your busy schedules to join your friends and colleagues at the April AEG meeting and continue 2008 with another great speaker brought to you by AEG Sacramento!

Section Meeting Date: Tuesday, April 29, 2008

Meeting Location: Sudwerks in Davis, 2001 Second Street, adjacent to I-80: get off at Richards, turn right, right on 5th, then right on L St ;left on Second St to Sudwerks, under the Pole Line Rd bridge superstructure fronting I-80 Fwy.

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
Gold Mine to Golden Years: Developing a Senior Residential Community on One of California’s Oldest Gold Mines

Byron C. Anderson, Senior Engineering Geologist
Kleinfelder, Inc.
Sacramento, California

Abstract:
Easily developable land is quickly diminishing in California. In response to this shrinking pool of readily available and economical land, developers are looking to new areas in California for development opportunities. The result is expanding growth in steeper terrain, difficult and complex subsurface conditions, and previously used land. Construction in these conditions can result in unanticipated, extensive, and costly mitigations, with additional inherited risks to both the client and the consultant.

This presentation provides a case history of a geologic and geotechnical investigation performed for a 72 acre, 113 lot senior living community that encompassed all three of these challenges. The project is located on one of California’s first gold mines, located in the Mother Lode Gold Region of California. This historic mine was worked by underground and hydraulic mining methods resulting in thousands of feet of underground workings and cliffs up to 100 feet high. The mine workings beneath the planned development created ground subsidence issues for the proposed structures, roadways, and utilities. In addition to this issue, the proximity of proposed residential lots to the hydraulic cliffs required the design of unconventional rock catchment systems. Earthwork performed to mitigate these mine hazards revealed fascinating and historical mine features and exposed an ancient river system with extreme topographic relief. The success of this project depended heavily on constant communication with the client to help them understand the risks and continually changing subsurface conditions, as well as direct observation and in-grade geologic mapping of these conditions during the mitigation process.

Byron Anderson has 14 years experience in engineering geology, geoscience, and environmental disciplines practiced throughout California. He has worked with Kleinfelder since graduating from Sonoma State in 1994. He worked in their Santa Rosa office for almost 7 years where he worked on some of the largest and deadliest landslides in California’s recent history, and numerous active fault investigations. In Sacramento as the office’s Senior Engineering Geologist Mr. Anderson’s responsibilities include project management, technical lead and support, and quality control of geologically sensitive projects. Highlights during his period in Sacramento have included geomorphic and subsurface evaluations for many of the region’s levee systems, the Kaweah Spillway Dam project, the Folsom Dam Modification project (including the ongoing Folsom Dam Spillway project), and the Sacramento River Sewer Tunnel Undercrossing project.

In addition to the landslide and active fault investigations, Mr. Anderson has worked on rock and soil slope stability studies, geologic hazards assessments, hydrogeologic studies, geomorphology studies, mine remediation/reclamation investigations, and site environmental impact, feasibility and design studies.
Chairman’s Message

by

John Pfeiffer

Greetings AEG Sacramento members,

The Spring weather brings a busy time for many of us and AEG is no exception. Since I last prepared a Message from the Board, for the February newsletter, there has been a lot happening on several fronts. The three California AEG sections worked with our lobbyist, Judy Wolen, to help secure revision of a bill (AB 1869) that proposed elimination of the Board of Geologists and Geophysists (BGG) among others. AEG Sacramento’s first field trip of 2008 took place: a Sutter Buttes Geology hike led by CSUS professor Brian Hausback, and we held our short course Advanced Rock Slope Stability Analysis: Numerical Methods.

Earlier this month, Judy Wolen informed us that Assembly Bill 1869 (Anderson) was coming up for review in the Assembly Business and Professions Committee and included provisions for elimination of the BGG. AB 1869 declared the intent of the Legislature to effect the changes proposed by the California Performance Review regarding elimination and consolidation of various State boards and commissions, including the BGG and the Seismic Safety Commission. We (AEG Sacramento), along with the San Francisco and Southern California sections, submitted a joint letter opposing the bill and outlining the functions and importance of the BGG. There was considerable opposition from others, as well, including the California Council of Geoscience Organizations. Judy Wolen attended the committee hearing and also spoke directly with the bill’s author, Assemblyman Joel Anderson. She reported great success in addressing our concerns (i.e., maintaining the BGG). Assemblyman Anderson was appreciative to be informed of the BGG’s importance, expressed willingness to revise the bill, and told her that his intent with the bill was to address boards/commissions that were minimally active or otherwise not particularly functional. We will continue to watch AB 1869, among others, as it evolves. I wish to acknowledge the tremendous benefit AEG gains from Judy Wolen’s work. She has worked on (California) AEG’s behalf for many years and continues to provide important service to us.

We were booked to capacity for the Sutter Buttes Geology hike on Sunday, March 30. From a vantage point off Pass Road, at the south side of the Buttes, Brian Hausback gave an overview of the geology and key landmarks while enduring a bone-chilling wind. Conditions improved markedly as we proceeded to the interior of the Sutter Buttes, where we explored outcrops indicative of the andesitic and rhyolitic eruptive history, and caught glimpses of valley deposits like the Ione Fm. through which they pushed. We greatly appreciate Brian and Marcy Hausback providing a day of their time to make the trip possible. It also should be noted that access to the private lands that make up the Sutter Buttes is provided by the Middle Mountain Foundation (http://www.middlemountain.org). This was a great opportunity to explore the Buttes and we hope to repeat it in the future.

This past week, 33 people attended our short course Advanced Rock Slope Stability Analysis: Numerical Methods. The course, taught by Dr. Erik Eberhardt (UBC) with assistance from Brendan Fischer (Kleinfelder), was very well-received as participants split their time between presentations and hands-on tutorials with a variety of software. I particularly appreciated Dr. Eberhardt’s frequent emphasis on the use of numerical methods as an aid to the thinking and evaluation process, not a tool for developing specific answers. Thanks go out to Pat Jenks for a great job of organizing this course, and to the corporate sponsors Wallace-Kuhl & Associates and AIS Construction for their support.

Looking ahead, there is still much activity on the AEG calendar. The upcoming Shlemon Conference: The Geological Assessment of Naturally Occurring Hazardous Substances is June 4-6, 2008 in Folsom. The organizers, David Bieber, David Sederquist, and Jim Brake are still accepting abstracts through the end of this month. Preparations continue for AEG’s 2009 Annual Meeting in South Lake Tahoe; those wishing to get involved with the Annual
Meeting preparations are encouraged to contact Bruce Hilton. Your AEG Sacramento Board is working to fill in our 2008 meeting calendar with more great speakers, field trips, and other events too.

As always, your input, assistance, and participation in AEG Sacramento section activities is welcomed, encouraged, and valued.

I hope to see you at the April meeting!

John Pfeiffer
Chairman, AEG Sacramento section

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**Job Announcements**

Just a quick reminder to all you job seekers out there that there are job openings posted on the AEG Sacramento website. We get new positions posted each month, so if you’re out there looking for a new opportunity, be sure to check out the Job Openings page on our Member Services menu!

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**Attention All Members!**

The Sacramento Section of AEG has copies of past field trips and seminar publications available for purchase on our website! These valuable publications are available in very limited supply, so be sure to get your copy today by visiting our website at [www.aegsacto.org/members/publications](http://www.aegsacto.org/members/publications). Don’t miss out!

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**WE WANT YOU!**

For those of you who may not have heard, we have open positions on the AEG Sacramento Executive Board that are just waiting for the right individual (this means you) to come and join us in making AEG even better! Our section’s success is due entirely to the participation and efforts of its members as we continue our founder’s legacy of excellence, activism, and service to our profession. So if you’ve ever thought to yourself “...wouldn’t it be great if we did (insert your super idea here) as a trip/meeting/event for AEG”, then it is time to step up and make it happen! Come talk to John and/or Nate at the next meeting to see how you can take a more active role in the continued success of our section!
Sacramento Section News Flash!

Schlemon Specialty Conference
The Geological Assessment of Naturally Occurring Hazardous Substances

June 4 – 6, 2008
Folsom, California, USA

Conference Organizers:
David W. Bieber, Geocon Consultants, Inc, Rancho Cordova, CA, bieber@geoconinc.com
David Sederquist, Youngdahl Consulting Group, Inc., El Dorado Hills, CA, dcs@youngdahl.net
Jim Brake, Geocon Consultants, Inc, Rancho Cordova, CA, brake@geoconinc.com

Schlemon Conferences are sponsored by the AEG Foundation and the Associationof Environmental & Engineering Geologists, and follow procedures typical of the Geological Society of America Penrose Conferences and the American Geophysical Union Chapman Conferences. The conferences are intended to promote and disseminate practice and research results, and to foster the improvement and understanding of applied geology.

The third Schlemon Conference will include keynote presentations by invited experts, volunteered poster presentations by conference attendees, a field excursion, and ample time for informal conversations.

Naturally occurring hazardous geologic substances include arsenic, mercury, uranium and other heavy metals, radon, and asbestos. The conference will focus on the geologic assessment of these substances including the strategies for sampling and problems with the current analytical methods. However, we will also discuss the interactions between the geologic community and the risk assessment and toxicology communities with regards to the collection of data and interprofessional communication. The conference will emphasize those principles common to the investigation of naturally occurring hazardous geologic substances in general, using the substances listed as examples. Topics covered will also include those characteristics and concerns unique to the assessment of naturally occurring particulates, heavy metals, and gases. Examples will be presented from throughout the United States, as well as from other countries. Key-note presenters have been selected based on topic and diversity of experience, and additional presenters will be selected to enhance the conference content.

The field trip held in conjunction with the conference will visit the Motherlode region of the central Sierras in El Dorado and Amador Counties to view and discuss exposures of asbestos-bearing rock; view areas where elevated metals including arsenic, nickel and chromium occur, including the site of a United States Environmental Protection Agency arsenic cleanup action; and visit an area where naturally occurring radon gas associated with regional granitic rocks occur. Sites visited will include areas of historic mining where we will discuss the role of mining in providing a preferential exposure pathway.

Two days of technical sessions are planned. Each session will include invited keynote speakers who will be followed by brief oral abstracts and poster presentations contributed by conference participants. The one-day field excursion will be conducted on the second day of the conference.

Small specialty conferences such as this one depend on volunteered presentations and active participants! All attendees are strongly encouraged to contribute to the program by offering a poster presentation.

Conference attendance will be limited to 75 participants. The registration fee of $325 U.S. will cover technical sessions on Wednesday, June 4, and Friday, June 6, the field trip on Thursday, June 5, lunches on Wednesday and Thursday, and a dinner on Thursday. Participants will be responsible for transportation to Folsom, California; transportation from the airport to the hotel; and lodging costs. The conference hotel, Lake Natoma Inn, is in the historic mining town of Folsom, California, located adjacent to the foothills of the Sierra Nevada, and is within convenient walking distance of historic downtown Folsom.

For detailed information and the application form, visit www.aegweb.org or contact the conference organizers by e-mail.
April 2008 AEG Meeting
Facsimile Transmittal Sheet
(or e-mail to the address below)

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

Or You Can Sign Up Online at:  www.aegsacto.org

Subject: February AEG Sacramento Section Meeting
Date:  April 29th, 2008
Place:  Sudwerks in Davis
   (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 - 8:30 PM - Speaker Talk and Slide Show
       8:30 - 8:45 PM - Questions and Answers

On the Menu:  Chicken Marsala
               Vegetable Lasagna
               Vegetables
               Mashed Potatoes
               Garden Salad

   Cost: $28 member (w/ RSVP) $30 nonmember and walk-ins

Notes:  First 5 Students (w/RSVP) Eat For Free!
        Additional Student RSVPs: $10.00   Student Walk-ins: $15.00
        Alcoholic beverages are available for those 21 and over on a cash basis.
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| January 29th       | Jim Wood, Golden Bear Ceramics Company  
Geology & Engineering Issues of the Upper Member Ione Formation |
| February 27th (Wed.) | Dr. John Clague, AEG 2008 Jahns Lecturer  
Formation and Failure of Natural Dams |
| March 18th         | J. David Rogers, Missouri University of Science & Technology  
Site Characterization and Failure Modes in the Landmark Paterno vs. California Flood Case |
| April 17th-18th    | Advanced Rock Slope Stability Short Course |
| April 29th         | Byron Anderson, Kleinfelder Inc.  
Gold Mine to Golden Years: Developing a Senior Residential Community on One of California’s Oldest Gold Mines |
| May 27th           | TBA |
| June 24th          | Dorian Kuper, AEG National President  
TBA |
| July               | No Meeting |
| August 26th        | TBA |
| September 15th-20th | AEG National Meeting,  
New Orleans, Louisiana |
| October 28th       | AEG’s Annual Student Night at CSUS  
TBA |
| November          | No Meeting |
| December          | AEG/GRA Annual Joint Holiday Meeting  
TBA |