

AEG SAN JOAQUIN VALLEY CHAPTER

OCTOBER 2012

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Hello to all of the new and returning members of the San Joaquin Valley AEG Chapter. Welcome to the new year of AEG meetings, I hope everyone had a wonderful summer. This year the officers have decided to maximize the number of speakers by planning monthly meetings. We even have plans for a field trip or two if we can generate enough interest. We are fortunate to live in California, so there is no reason we should not be taking advantage of all the amazing geology within less than a day's drive. So, if you are interested in a field trip, please speak up at the next meeting. We are happy to hear suggestions from people who are willing to attend or even better, lead the next field trip. We would like to thank all of last year's speakers and especially Dr. John Wakabayashi for pinch hitting at our last meeting and schooling us on Franciscan Geology. As for this year, we are already booked through December and we have some very exciting speakers lined up. At the moment, we are open to suggestions for next year, but act fast if you have someone in mind because we are in the process of filling in winter and spring 2013 dates shortly. Our next meeting will be at the Elbow Room on October 18th featuring Dr. Roy Shlemon. After that, we will return to our usual place, the Old Spaghetti Factory on November 15 with Bruce Hilton speaking. Mr. Hilton is Chief Engineering Geologist at Kleinfelder and last year's AEG president. We will end the year a week earlier than normal on December 13th with Dr. Greg Stock, Yosemite's Park Geologist, so that we can avoid conflict with everyone's holiday schedule.

Chris Bowie

A Proposed Mid-Holocene Age Definition for Hazardous Faults in California

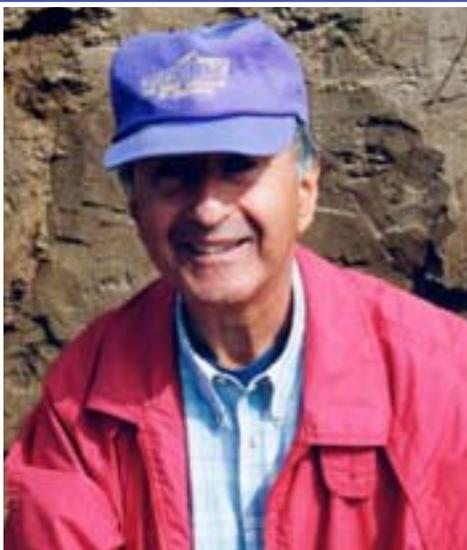
Roy Shlemon

10-18-2012

A Technical Advisory Committee (TAC) for the State Mining and Geology Board reviewed “lessons learned” since passage of the Alquist-Priolo (AP) Act in 1972. The aim was to recommend changes for improving regulations and geologic practice concerning public health, safety and welfare as potentially impacted by surface-fault rupture. An “active fault” was initially defined as surface or near-surface rupture within about the past 10 ka. This deterministic number evolved to ~11.5 ka (Pleistocene-Holocene transition) and now, locally, to ~13 ka when expressed in calibrated radiocarbon years. Based on 40-yr experience since 1972, the inflammatory term “active fault” should be replaced by “hazardous” and “non-hazardous” fault, respectively; thus taking advantage of new, cost-effective and practical engineering design that can readily mitigate many “non-hazardous” faults.

After discussion with many practicing geologists and following a three-day, AEG-sponsored “Specialty Conference” (2010), several TAC members recommended that: (1) the potential for direct, fault-induced ground rupture be compared with recurrence and risk considered acceptable for mitigation of other natural hazards; (2) ideally, no specific deterministic number should define a hazardous fault, which may be practically mitigated based on site-specific investigation, professional judgment, cost, available technology and societal constraints; and (3) owing to some regulators and consultants “need” for deterministic numbers, the existing active-fault definition be realistically changed from ~11.5 ka to a mid-Holocene (~4-6 ka range), a non-specific interval that can be periodically revised with technological advances in the geologic and engineering sciences.

The proposed “mid-Holocene” age-range recognizes site-specific uncertainties, and closes the gap between the present 11.5 ka, active-fault criterion and the typical ~100 to 500-yr recurrence of other natural hazards typically mitigated by engineering design. Change in public policy and related regulation does not come easily, and ultimately may be detrimental to the economic livelihood of some geologists. Regardless, despite inherent uncertainties in all our work and conclusions, for the public good, as practicing geologists we should learn from new science, experience and common sense, and hence adjust our regulations accordingly. Are we brave enough to do it?



Roy Shlemon

Roy J. Shlemon received a BA in geology from Fresno State College in 1958, a MS from the University of Wyoming in 1959, and a Ph.D. from the University of California at Berkeley in 1968. Formerly on the faculty of the University of California at Davis and the Louisiana State University (Baton Rouge), for the past ~45 years, Dr. Shlemon has provided consulting services primarily focusing on applications of Quaternary geology, soil stratigraphy and geomorphology to engineering practice.

Dr. Shlemon currently maintains Research Associate and Senior Fellow appointments at the University of California, Davis, and serves on the Foundations of UC Davis, the University of Wyoming and various professional society organizations. He is also the proud recipient of the Fresno State Alumni “Top Dog Award;” and is an Honorary Member of the AEG, the AIPG and several other national, regional and local organizations.



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April 2012 AEG Meeting RSVP Sheet

Fax or E-mail to the address below:

To: Richard Fink
Fax: 559.442.5081

E-mail: rfink@kleinfelder.com

From:

E-mail:

Subject: October AEG San Joaquin Valley Chapter Meeting

Date: October 18, 2012

Place: Elbow Room (Located on Shaw & Palm in the Fig Garden Shopping Center)

Time: 6:00 - 7:00 PM - Sign in & Social hour
7:00 - 7:30 PM - Dinner & Announcements
7:30 - 8:30 PM - AEG meeting & Speaker presentation
8:30 - 9:00 PM - Questions & Answers

On the Menu: Choice of:

Cost (circle one): \$10 for students \$25 for non-students



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Gold - \$500/year

Speak at one meeting for 10 minutes to describe company
Set up a booth at one meeting
One-half page advertising area in 2012 – 2013 newsletters

For more information contact our Treasurer, Richard Fink, at rfink@kleinfelder.com

Calendar of Events

November 15, 2012

Bruce Hilton

Topic: Martis Creek Dam – The Discovery of a New Capable Fault in Tahoe Basin

December 13, 2012

Greg Stock

Topic: TBA