



**ASSOCIATION OF ENVIRONMENTAL & ENGINEERING GEOLOGISTS
Southern California Section**

"Connecting Professionals, Practice, and the Public."

NEWSLETTER – November 2008

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Visit the Southern California Section Website: www.aegsc.org

Newsletter Editor – Steve Varnell, svarnell@fugro.com, 805-650-7000

Meeting Date: *Tuesday, November 11th*****

***** Location: Victorio's Ristorante: 10901 Victory Blvd. North Hollywood, CA 91606.**

Time: 6:00 p.m.-Social Hour; 7:00 p.m.-Dinner; 7:45 p.m.-Presentation

Cost: \$30 per person with reservations, \$35 without reservations, \$15 with a valid Student ID. House beverages are included in the \$30 fee. No charge for parking.

Reservations: Please e-mail Peter Thams at thams.peter@gmail.com

Speaker: Dr. Phil Hogan, P.G., C.E.G., Principal Marine Engineering Geologist, Fugro West, Inc.

Topic: "Geohazard Challenges of the Woodside OceanWay LNG Development, Offshore Southern California"

Abstract:

Coauthors: Andy Lane, Jim Hooper, Aaron Broughton, and Brian Romans

Geotechnical data and high resolution seismic data collected for Woodside's OceanWay LNG project allow an improved understanding of the tectonic and sedimentary processes in Santa Monica Bay. Primary geohazards of concern include high seismicity, active faults, and turbidity currents.

A broad zone of deformation exists from the shelfbreak down to the base of slope at the northeast margin of Santa Monica Basin. The Palos Verdes fault zone on Santa Monica Shelf exhibits transtensional structures, including numerous left-stepping en echelon horsts and grabens. Farther north, the main trace of the Palos Verdes fault bends towards the west, more closely paralleling the structural grain of the Transverse Ranges to the north. The San Pedro Basin fault exhibits transpressional features, including surface fault rupture and growth folding affecting late Quaternary strata. Active faults crossing the proposed pipeline route present a ground rupture hazard on the continental slope.

Active sedimentary processes and high sediment accumulation rates are documented on Hueneme Submarine Fan in Santa Monica Basin. High-resolution seismic lines across DSDP borehole 1015 provide a well-dated chronostratigraphic record. Turbidity currents in Santa Monica Basin are sand-dominated, and have increased in frequency in the Late Holocene. Five thin (<8 cm thick) turbidites have been documented in the basin in the last 500 years. Numerous thicker turbidites are present, with a recurrence interval of about 330 years over the past 7 ka. The amount of sediment per event increases markedly starting around 2 ka, and may be related to an increase in seismicity in the LA Basin vicinity, increased El Nino Southern Oscillation (ENSO) frequency, or other factors. Approximately 3 kyBP the sediment accumulation rate in the basin increased from 1.1 m/ka to 2.5 m/ka, concurrently with the increase in the average sand thickness/bed.

The potential exists for seismicity, surface fault rupture, and turbidity currents to affect the proposed pipeline within the lifetime of the project. These geohazards will be mitigated through appropriate geohazards analyses, risk studies, and engineering design of the OceanWay facilities, allowing safe and secure importation of natural gas to the West Coast of the USA.

Speaker:

Dr. Hogan has 20+-years of experience specializing in marine geohazard surveys for coastal and offshore infrastructure and energy projects. Dr. Hogan played a key role in interpretation and integration of marine geophysical, geotechnical, and geologic data for the Woodside OceanWay Secure Energy LNG project. Since 2004 he has been a Principal Marine Engineering Geologist with Fugro West, following his more-than-15 year career with Dames & Moore/URS. He has performed geologic reconnaissance and geohazard evaluations in a variety of tectonic and sedimentary environments worldwide.

Dr. Hogan has a strong background in seismic hazards evaluation, structural geology, sedimentology, engineering geology, Quaternary geology, geochronology, geomorphology, and stratigraphy. Dr. Hogan has a broad-based knowledge of all aspects of geology, while specializing in offshore geohazard studies, seismic hazard analysis, and marine geology. He has participated in high-resolution geophysical mapping surveys of modern marine continental shelf and slope areas in central and southern California, Australia, Turkmenistan, Beaufort Sea (Alaska), Hawaii, Spain, Trinidad, Papua New Guinea, Sakhalin Island, Japan, Philippines, Indonesia, Bulgaria, Canada, and Abu Dhabi. Dr. Hogan has carried out investigations of landslide hazards, debris flows, turbidity currents, liquefaction potential, basin analysis, water resource evaluation, surface fault rupture displacement, seismic source

characterization, coastal erosion potential, and shallow and deepwater marine foundation engineering conditions.

Dr. Hogan grew up on the Palos Verdes Peninsula, and has an in-depth understanding of both the onshore and offshore geology of this area. He received his undergraduate degree in geology from Princeton University, and both his M.S. and Ph.D. degrees from the University of Southern California. Dr. Hogan's undergraduate thesis focused on geologic structure and uplift rates of the Palos Verdes Peninsula, while his M.S. work addressed mass movement processes in the California Continental Borderland and Santa Maria Basin. Dr. Hogan worked in the SW Pyrenees for his doctoral studies, deciphering the timing and rates of tectonic and sedimentary processes through application of magnetostratigraphic age dating techniques to foreland basin deposits.

Chair Column

Roz Munro

The ballot for officers for 2008-2009 was sent in a separate email from national. The deadline is Mon. Nov. 10. Please take the time to vote. The position of Vice Chair is open. If you are interested in filling that position, write yourself in. Or if you know someone who would be interested, get in touch with them and offer to write their name in. (We won't seat anyone who doesn't want to fill the position.)

We're meeting next week at Victorio's where I plan on passing the gavel to the new Chair. I look forward to seeing everyone there.

Announcement

Charles Nestle

The 2008 County of Los Angeles Building Code (Title 26) was expected to be available in technical book stores around the end of March. The new code may also be accessed at either of the following links: <http://www.bpcnet.com/codes/lacounty/> or <http://ordlink.com/codes/lacounty/index.htm>. Click on: "Title 26. Building Code."

Public Service Announcement

Charles Nestle

ZIP-A-DIPs Are Still Available!

How many of you have given up trying to find replacement for your faded and warped Zip-A-Dips? Zip-A-Dips are available from Don and Jeannine Lamar, who have lived in retirement in Reno for the past six years. Jeannine said that they don't plan on having any more made when they exhaust the present supply of Zip-A-Dips. She said, "It sure is nice to know that some geologists are still using ZADs."

Order your Zip-A-Dip by phone: (775) 322-5344. The price for 1 is \$4.00, or order 2-10 for \$3.50 ea., 11-49 for 3.00 ea., and 50+ for \$2.50 ea.

***Friends of the Pleistocene
Final Announcement - 2008 Pacific Cell Fieldtrip***

November 14-16, 2008

Organizers and Leaders: Tom Rockwell, Mike Oskin, Kim Le, Becky Dorsey, Susanne Janecke, Warren Sharp, Kate Fletcher, Lewis Owen, Caitlin Lippincott, Eldon Gath and George Jefferson

Focus: Cross-correlation of Quaternary dating techniques, slip rates, and tectonic models in the western Salton Trough

Register now at the official 2008 FOP website:

<http://www-rohan.sdsu.edu/~fop/>

Registration closes shortly!

To guarantee your T-shirt selection, register immediately! Details of the trip will be sent directly to your designated e-mail address

The cost of the trip will be \$35, which includes all camping-related fees (porta-potty rentals, other), copious amounts of beer and wine for Thursday, Friday and Saturday evenings, and an all-new 2008 FOP T-shirt.

We will be camping at Yaqui Wells in the Anza-Borrego State Park, and several of the stops will involve long and (hopefully) hot hikes, so please plan accordingly. A 4x4 high-clearance vehicle is strongly encouraged for Friday's plans. Car-pooling, both to the campground and along the trip, will also be strongly encouraged.

Day 1: Friday - The southern Clark strand of the San Jacinto fault. Will start off with a long and rigorous hike to examine spectacular offsets along the fault in Rockhouse Canyon, so Friday is not for the weak-kneed. But if you make it, you will be subjected to fault-zone geomorphology that will stick you in the eye. In the afternoon, we will visit the southern Santa Rosa slip rate site and discuss rates based on various dating techniques, dissipation of slip to the south, discussions on lifetime slip-rates versus their latest Quaternary slip rates. Have slip rates varied due to changing fault structure? ...and other controversial topics.

Day 2: Saturday - Evolution of the San Jacinto Fault. We will examine the evidence for the Early Quaternary age of the San Jacinto fault zone. Implications of fault arrays in mud-rich basins for paleoseismic studies. Crossing active faults- what is the evidence and how do they do this? Implications of ramps and flats on strike-slip faults. Fault youth and fault maturity: is this a useful model?

Day 3: Sunday - The Elsinore Fault, Lake Cahuilla history, Fish Creek basin stratigraphy. Continued discussions on derivation of slip rates based on various dating techniques, including cosmogenic ¹⁰Be, U-series, OSL, soils. Dating soils via U-series on pedogenic carbonate. Dating Lake Cahuilla shoreline deposits with Optically-stimulated luminescence - how close do you get with OSL? The implications of clast provenance and fan morphology combined with various dating techniques in estimating slip rates.

Chapter Meetings

Inland Empire:

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/>

National Business Donation

- **Platinum** - \$1,000
- **Gold** - \$500
- **Silver** - \$250

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.

Company & Employment Advertising Newsletter (includes SoCal website posting)

	<u>Month</u>	<u>Year</u>
▪ Business Card	\$10	\$100
▪ ¼ Page	\$20	\$200
▪ ⅓ Page	\$30	\$300
▪ ½ Page	\$35	\$350
▪ Full Page	\$50	\$500

SoCal website posting only

\$20/month

* The deadline for submitting an advertisement for next month's newsletter is Friday, November 28th.

YEAR 2009 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, Peter Thams.

2009 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



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LGC Valley, Inc.

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Please look to our website for the latest opportunities. All inquiries will be held in the utmost confidence. We look forward to hearing from you.

**CITY OF LOS ANGELES
Employment Opportunity**

ENGINEERING GEOLOGY ASSOCIATE

ANNUAL SALARY

\$63,329 to \$78,697; \$70,804 to \$87,988; \$78,863 to \$97,990; and \$85,712 to \$106,488

The salary in the Department of Water and Power is \$67,484 to \$83,833; \$80,241 to \$99,681; \$87,027 to \$108,095; and \$93,500 to \$116,176.

DUTIES

An Engineering Geologist Associate performs professional engineering geological investigations and studies in connection with the design and construction of tracts, dams, reservoirs, tank sites, buildings, streets and highways, tunnels, electric power generating plants, transmission towers, distributing stations and other structures; makes precise geological maps; classifies rock and soil samples; and investigates water-bearing strata and geothermal prospects, geologic hazards, and technical aspects of legal questions.

REQUIREMENT

Graduation from a recognized four-year college or university with a degree in geology or engineering geology.

WHERE TO APPLY

Applications WILL ONLY BE ACCEPTED ON-LINE at https://personline.lacity.org/job_app/. For a complete position description, please visit http://personline.lacity.org/job_list/alljobs.htm

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Company Profile

Since 1986, clients have turned to Ninyo & Moore for complex geotechnical and environmental challenges. As a leading geotechnical and environmental sciences engineering and consulting firm, Ninyo & Moore provides specialized services including evaluations for airports, bridges, commercial developments, dams, educational facilities, harbor and offshore structures, highways and roadways, hospitals, industrial developments, landfills, light rail transit lines, pipelines, power stations, railroads, residential developments, reservoirs and tanks, transmission lines, tunnels, water and wastewater treatment plants to clients in both the public and private sectors. With offices in Colorado, California, Nevada, Arizona, and Texas, the firm is fully committed to being responsive, cost-efficient, and thorough in meeting its clients' project needs and objectives.



Available Positions:

- ✓ **CENTENNIAL:** Chief Geotechnical Engineer, Construction Field Technicians & Inspectors, and Project Engineer/Geologist.
- ✓ **IRVINE:** Asbestos & Lead Professional, Project Manager, Project Engineer, Senior Environmental Engineer, Senior Staff Environmental Scientist, and Staff Environmental Scientist.
- ✓ **LAS VEGAS:** Asbestos & Lead Professional, Construction Field Technicians, and Geotechnical Engineer.
- ✓ **OAKLAND:** Field Special Inspector, Project Environmental Geologist, Scientist or Engineer, Project Geotechnical Engineer, Senior Environmental Engineer and Senior Geotechnical Engineer.
- ✓ **PHOENIX:** Construction Field & Laboratory Technician, Geotechnical Engineer/Engineering Geologist, Laboratory Manager-Construction Materials Testing Department, Project Engineer/Geologist, Project Environmental Scientist, Project Manager-Construction Materials Testing, Senior Environmental Professionals, Senior Staff Environmental Scientist, and Technical Assistant.
- ✓ **SAN DIEGO:** Asbestos and Lead Environmental Professional, Project Engineer/Geologist, Project Geologist/Environmental Scientist, Senior Geotechnical Engineer, and Staff Engineer.
- ✓ **ALL OFFICES:** Environmental Engineer/Scientist-Air Quality Specialist, Practice Builder for Mining & Petroleum Industry Work



Successful candidates should have a BS or MS degree for staff-level positions and five years or more of experience for project to senior-level positions. The candidates should be detailed oriented and have excellent verbal and written communication skills. Professional Engineer (PE) and/or Professional Geologist (PG) registrations are preferred for project or senior positions.

Ninyo & Moore offers excellent benefits and great opportunities for professional growth. Please visit our website for complete and detailed job descriptions and to submit your resume in confidence at www.ninyoandmoore.com/careers.html or mail to our corporate office at 5710 Ruffin Road, San Diego, CA 92123, Attention: Human Resources. EOE

www.ninyoandmoore.com

Ninyo & Moore is an equal opportunity employer.

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