



## ASSOCIATION OF ENVIRONMENTAL & ENGINEERING GEOLOGISTS

SOUTHERN CALIFORNIA SECTION, SAN DIEGO CHAPTER

"Serving Professionals in Engineering, Environmental and  
Ground-Water Geology"

### San Diego Chapter, October 2006 Newsletter

**SEPTEMBER MEETING NOTICE: TUESDAY, OCTOBER 17, 19 2006.** Social Period starts at 5:30 PM, talk at 6:00 pm. The meeting will be in the Grand Ballroom at Ninyo & Moore, 5710 Ruffin Road, San Diego, CA. Please contact Lesley Barnes at Tetra Tech (lesley.barnes@ttemi.com) to RSVP. Dinner is buffet-style. Cost is \$20.

Our speaker for Tuesday night is Pat Brooks PG. Pat earned a bachelors degree in Geology from the University of Utah and a masters in Hydrology and Water Resources from the University of Arizona. Pat's has worked with a number of firms in San Diego including Allied Geotechnical Engineers, Woodward-Clyde Consultants, and Kleinfelder. He is past president of San Diego Association of Geologists and Aqualink Water Systems. Pat is currently employed by Naval Facilities Engineering Command, where he manages the environmental cleanup of Hunters Point Shipyard in San Francisco. Pat will discuss some innovative technologies used to clean up Hunter's Point Shipyard in San Francisco, California.

Hunters Point Shipyard has been operational for over 100 years either as a private or Naval shipyard. It was also home to the Naval Radiological Defense Laboratory. The shipyard includes about 450 acres of land and 400 acres in San Francisco Bay. The annual cleanup budget, at \$50M to \$70M, offers many opportunities for environmental consultants. The Navy has successfully used the following innovative technologies to help solve some of the shipyard's environmental problems.

**Zero-valent Iron Injection:** The Navy used a high-pressure injection tool to deliver powdered iron directly to contaminated groundwater. As the iron oxidizes, it creates an optimal environment for de-chlorination of solvent contamination. The technology successfully and rapidly (rapid for a geologist) destroyed chlorinated solvents. The goal is to continue treatment until only harmless byproducts remain. Case histories from two sites will be presented.

**Mechanochemical Destruction of PCBs:** The Navy teamed with the New Zealand Department of Environment to operate a small scale treatment system that destroyed PCBs at room temperature. PCBs are one of the most persistent and stable of all environmental contaminants, and their presence at the shipyard is widespread. Mechanochemical reactions offer hope that room temperature destruction of PCBs will be economically viable.

**Detoxification of Bay Sediments:** The Navy teamed with Stanford University to evaluate mixing activated carbon with contaminated by sediments to limit the bioavailability of PCBs in the environment. Two delivery systems were used to emplace the activated carbon. The pilot study



AEG SAN DIEGO CHAPTER, AUGUST 2006 NEWSLETTER  
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monitored the uptake of PCBs in clams in treated and untreated plots of sediment. Pilot study results demonstrate that the technology is very effective at reducing bioavailability of PCBs in the short term. Long term effectiveness continues to be evaluated.

**SUMMARY OF AUGUST'S MEETING (Notes by Lee Vanderhurst, Secretary)**

September's meeting featured a spirited discussion of southern California tectonics by Dr. Thomas Rockwell. First we looked at the Agua Blanca-Rose Canyon-Newport Inglewood connection through time. Dating of large events suggests that there is a northward migration of major earthquakes (where are the Minutemen when you need them?). Again, looking at the big picture, there appears to be a relationship between large earthquakes in the Los Angeles basin and the Mojave Desert. A period of quiescence in one province appears to mark a period of activity in the other. Dr. Rockwell's recommendation? If you live in 29 Palms, its time to move west, young man...Finally, Tom revealed plans for putting us out of business with the new and improved, space-age digitron. Mum's the word however, you had to be there.

On another note, the membership voted overwhelmingly to elect Mr. Steve Bradley as your new President and Mr. W. Lee Vanderhurst as your ongoing Newsletter Editor. We are currently looking for someone to volunteer for the Treasurer's position. We can only offer a fair amount of verbal abuse but you do get to balance the checkbook!

**UPCOMING SAN DIEGO AEG MEETINGS:**

**November 14, 2006:** Topic and location to be announced.

FYI, we are always in need of interesting talks in the environmental and engineering geology arenas. Please send your ideas in to [steve.bradley@ttemi.com](mailto:steve.bradley@ttemi.com) .

**MEETINGS OF AFFILIATED GROUPS AND SAN DIEGO AREA  
SEMINARS/PRESENTATIONS/EDUCATIONAL OPPORTUNITIES**

The Inland Empire Chapter of the Southern California Section of AEEG will present "Rock Slope Stability Analyses-A Case Study" and "Three Dimensional Rock Mass Fracture Geometry and Fluid Flow modeling for a tunnel site in California" by Dr. Pinnaduwa H.S.W. Kulatilake on Wednesday October 18, 2006.

REG REVIEW and the Association of Environmental and Engineering Geologists are pleased to announce the reinstatement of Exam Review Courses for the Certification Exams for Engineering Geology (CEG) and Hydrogeology (CHG). These courses will be held in Sacramento on November 4, 2006 and Santa Ana on November 5, 2006. The morning class from 8am to noon is devoted to the CEG and the afternoon class from 1pm to 5pm is for the CHG. The Courses individually are \$245 for AEG members, \$260 for nonmembers. If you take both together the total cost is \$485 for AEG members, \$500 for nonmembers. Preregistration deadline for the CEG and CHG courses is October 13, 2006. The courses are taught by Patti Sutch, California RG 3949, CEG1641, and CHG 25, and Lisa Dirth, California RG 3951, CEG 1240, and North Carolina RG by ASBOG exam. For specific information and registering visit <http://regreview.com>. or e-mail



AEG SAN DIEGO CHAPTER, AUGUST 2006 NEWSLETTER  
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- [regreview@aol.com](mailto:regreview@aol.com), mailing address - 37 Rosewell Road, Bedford, NH 03110, telephone - East Coast call Lisa Dirth at 603-472-3050, (fax) 603-471-1969. West Coast (evenings) Patti Sutch at 916-456-4870.

### **NEWS FROM THE BOARD FOR GEOLOGISTS AND GEOPHYSICISTS**

On Friday, September 29, Governor Schwarzenegger signed into law SB 1476 (Figueroa) that continues the Board for Geologists and Geophysicists. Section 7810 of the Business and Professions Code is amended to read: "This section shall become inoperative on July 1, 2009, and, as of January 1, 2010, is repealed, unless a later enacted statute, that becomes operative on or before January 1, 2010, deletes or extends the dates on which it becomes inoperative and is repealed." This means that the next round of sunset review hearings by the Joint Committee on Boards, Commissions and Consumer Protection should begin in the fall of 2008.

The State Board for Geologists and Geophysicists is proposing to change the Code of Professional Conduct. Presented below are web links to the notices regarding the proposed changes and the language of the proposed changes.

[Notice of Regulatory Changes](#);

[Initial Statement of Reasons](#)

[Proposed Language](#)

### **MISSION STATEMENT**

The San Diego Chapter of the AEG subscribes to the national AEG's mission statement. The Association of Environmental & Engineering Geologists (AEG) contributes to its members' professional success and the public welfare by providing leadership, advocacy, and applied research in environmental and engineering geology.

### **AEG AND USEFUL LOCAL LINKS**

- Southern California Section AEG: <http://www.aegsc.org/>
- National AEG: <http://www.aegweb.org/>
- San Diego Association of Geologists <http://www.sandiegogeologists.org>
- American Society of Civil Engineers, San Diego Geotechnical Group [http://www.asce-sd.org/groups\\_geotech.asp](http://www.asce-sd.org/groups_geotech.asp)
- San Diego State University, Geology Department <http://www.geology.sdsu.edu>

### **EMPLOYMENT**

As a service to our members, AEG San Diego welcomes job postings - either for open positions or jobs wanted. Please contact Lee Vanderhurst ([lvanderhurst@geotechnicsinc.com](mailto:lvanderhurst@geotechnicsinc.com)) for information on advertising in this newsletter. The cost for an ad is \$25 per month.



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**CHAPTER CONTACT INFORMATION**

President	Steve Bradley	Ninyo & Moore	858.576.1000	steve.bradley@ttemi.com
Treasurer	R.M. Nixon			No, wait a minute. He resigned!
Newsletter Editor	Lee Vanderhurst	Geotechnics, Inc.	858.536.1000	<a href="mailto:lvanderhurst@geotechnicsinc.com">lvanderhurst@geotechnicsinc.com</a>

If you are not receiving a newsletter, please contact Lee Vanderhurst at [lvanderhurst@geotechnicsinc.com](mailto:lvanderhurst@geotechnicsinc.com) .



# GEOTECHNICAL ENGINEERING DIVISION



## 2006-2007 SURVEY AND MEMBERSHIP FORM ASCE GEOTECHNICAL ENGINEERING DIVISION

Please complete the following Survey and Membership Form **(both pages)** and return it with your annual dues\* (\$25.00 regular members, \$10.00 student members) to:

Emil Rudolph  
Ninyo & Moore Consulting  
5710 Ruffin Road  
San Diego, California 92123  
(858) 576-1000

Membership Dues includes one free drink courtesy of CONTECH Construction Products
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\* Please make checks payable to: **ASCE Geotechnical Engineering Division**  
(your membership includes **one free drink** at each dinner)

List two topics pertaining to geotechnical engineering and/or projects of interest you would most like to have discussed at our meetings.

1.  
\_\_\_\_\_  
\_\_\_\_\_

2.  
\_\_\_\_\_  
\_\_\_\_\_

List a place or area where you would like to have a monthly meeting.

1.  
\_\_\_\_\_

List a name of a potential speaker for a monthly meeting.

Name: \_\_\_\_\_ Telephone: \_\_\_\_\_

Company: \_\_\_\_\_ Topic: \_\_\_\_\_



# GEOTECHNICAL ENGINEERING DIVISION



## MEMBERSHIP INFORMATION

NAME:

\_\_\_\_\_

HOME ADDRESS:

\_\_\_\_\_

CITY: \_\_\_\_\_ ZIP CODE: \_\_\_\_\_

HOME PHONE \_\_\_\_\_

BUSINESS NAME:

\_\_\_\_\_

STREET:

\_\_\_\_\_

CITY: \_\_\_\_\_ ZIP CODE: \_\_\_\_\_

BUSINESS PHONE: \_\_\_\_\_

E-MAIL ADDRESS: \_\_\_\_\_

PREFERRED MAILING ADDRESS:

HOME: \_\_\_\_\_

BUSINESS: \_\_\_\_\_



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# Southern Anza-Borrego Desert and Coyote Mountains, California

**October 28 and 29, 2006**

The geology of Anza-Borrego Desert State Park and the surrounding area attracts geologists from around the world. The trip includes an optional Friday afternoon (noon to 4pm) hike to explore the four mysteries of the Domelands which includes the enigmatic "flamingo nests." Optional Friday night camping will be at Agua Caliente County Park, with an optional evening hike to a detachment fault from the campground. The trip will begin on Saturday morning (8:30am) at the Carrizo Badlands Overlook on Highway S-2 in Anza-Borrego Park. We will explore the faulting and structural complexity of the northwestern Coyote Mountains as we descend Canyon Sin Nombre from the Overlook. We'll hike about a mile up a little known side canyon to see stratigraphic evidence of coincidental volcanic activity during the deposition of the Split Mountain formation, structural evidence of the Coyote Mountains uplift, and subsequent Mio-Pliocene basin evolution. We will return to the campsite at Agua Caliente for a catered dinner. The Agua Caliente hot springs await us in the evening, followed by the traditional evening program under the stars. After an early Sunday morning meal we will leave camp to explore the lava beds of Volcanic Hills, and the terrace cavelets and mesa conglomerates. After a short hike we will top off the trip with a sack lunch while discussing the geologic memories of the weekend and allowing you an early return home.

Trip Cost includes meals and liquids Saturday morning thru Sunday lunch, publication, camping fees, and trip logo hat. Carpooling and 4WD are necessary. Please bring your own water, camp and hiking gear, and FRS radios.

For more trip information: Dave Bloom at 619-571-3470, email: vp@sandiegogeologists.org

**Register early - Field Trip details will be emailed to participants, so please list your preferred email address.**

.....cut here and mail info with money.....

**SDAG TRIP October 28<sup>th</sup> and 29<sup>th</sup>; Saturday & Sunday = \$110.00**

*Registration required by October 15<sup>th</sup> (Limited to 75)*

Check here if camping Friday night: October 27<sup>th</sup> optional Friday night at Agua Caliente Park.

**NAME:** \_\_\_\_\_

**ADDRESS:** \_\_\_\_\_

**EMAIL:** \_\_\_\_\_ **PHONE:** \_\_\_\_\_

**I will be Carpooling with:** \_\_\_\_\_

**Mail this form and your Check payable to SDAG to:**

Sarah Gray, Marine and Environmental Studies Department,  
University of San Diego, 5998 Alcalá Park, San Diego, CA 92110