

ASSOCIATION OF ENVIRONMENTAL & ENGINEERING GEOLOGISTS

SOUTHERN CALIFORNIA SECTION, SAN DIEGO CHAPTER

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

San Diego Chapter, February 2006 Newsletter

FEBRUARY MEETING NOTICE: TUESDAY, FEBRUARY 21, 2006 AT 5:30 PM

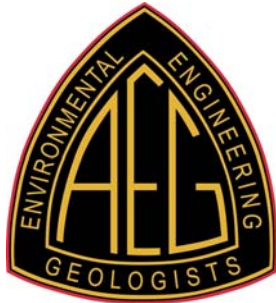
February's meeting be highlighted by a presentation from Mr. Werner Landry, with the City of San Diego Planning and Development Services. **Werner will update us on the status of the proposed Technical Guidelines for Fault Rupture Hazard Investigations.** Werner is also looking at updating the City's guidelines for geotechnical studies in general and may have some information on that as well.

The meeting will be held at the offices of Ninyo & Moore, 5710 Ruffin Road, San Diego. We will be back to the "el cheapo" meal of pasta, bread, and salad. RSVPs are requested (actually required!). Please contact Jonathan Goodmacher (jgoodmacher@ninyoandmoore.com) to RSVP.

SUMMARY OF JANUARY'S MEETING (Notes by Jonathan Goodmacher, President)

January's meeting was very well attended (approximately 40 persons in attendance). January's meeting focused on an issue that affects professionals in both the environmental and geotechnical fields: The topic was groundwater dewatering with an emphasis on working in Downtown San Diego. The presentation was by Sandi Marshall of Pure Effect, a groundwater dewatering subcontractor. She spoke of several current projects that Pure Effect is involved with in the downtown area. These included the Diamond View Tower, Hard Rock Hotel, and Bosa's Legends and Electra developments. They will also be involved with the Breeza, Sapphire Tower, and Cosmopolitan Square developments.

According to Sandi dewatering flow rates have ranged from 50 to 800 gpm and site pre-construction workup, filtration and treatment varied. Her firm's services include the technical design, production and fabrication for the treatment of contaminated water, air and vapor in various applications and markets throughout California and beyond. She spoke of the process involved in getting a NPDES permit and warned of the lengthy time periods often involved in



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moving these projects forward. Sandi has made herself available as a resource for dewatering questions in the downtown San Diego and other areas. You may contact her at smarshall@pureeffect.com

UPCOMING SAN DIEGO AEG MEETINGS:

March 22, 2006: We will be having a combined meeting with the ASCE Geotechnical Group. Dr. Timothy Stark will present on "Impact of Cut and Fill Operations on Hillside Development." Please see below under Upcoming Seminars for a description of Dr. Stark's background.

April 2006: We are looking for a topic of interest to the community. Please contact Jonathan Goodmacher (jgoodmacher@ninyoandmoore.com) if you have a good suggestion.

UPCOMING MEETINGS OF AFFILIATED GROUPS:

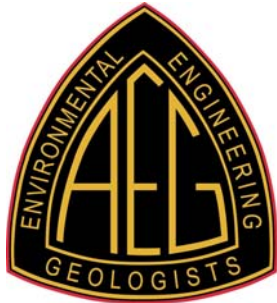
ASCE-Geotechnical Group: Their February 16 meeting will feature Dr. John Nelson from the University of Colorado. Dr. Nelson will be speaking on the topic of expansive soils. Contact James Stiadly for further information (jlstiadly@g2dresources.com).

San Diego Association of Geologists (SDAG): Their February 15 meeting will be a talk on the Geology of the Picacho Area by Doug Stephenson of Petra Geotechnical. Contact Scott Snyder of Ninyo & Moore for further information (ssnyder@ninyoandmoore.com).

UPCOMING SAN DIEGO AREA SEMINARS/PRESENTATIONS

ONE DAY SEMINAR: "Analysis of Landslides: Shear Strengths, Testing, and Stability Methods" by Dr. Timothy D. Stark, P.E.

The San Diego ASCE-Geotechnical Group has arranged for this one-day seminar by Dr. Timothy Stark, Ph.D. P.E., Professor of Civil Engineering, University of Illinois. We have arranged to co-sponsor this seminar and attendance by interested geologists is encouraged. Dr. Stark has been



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teaching and conducting research on static and seismic slope stability analyses and soil shear strengths for landslides since 1986. His research has led to a better understanding of design shear strength values, shear strength test procedures, and 2-D and 3-D stability analyses for landslides. Dr. Stark has received a number of awards for his teaching and research activities. A flyer describing the one-day seminar is attached to this newsletter.

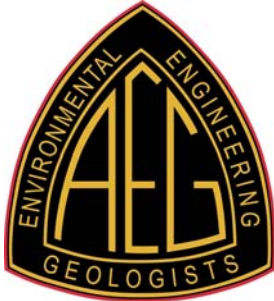
SAN DIEGO COUNTY DEPARTMENT OF ENVIRONMENTAL HEALTH (DEH) SITE ASSESSMENT AND MITIGATION (SAM) UPDATE: February 22, 2006 8:00 am to 12:00 pm, Marina Village Conference Center Captain's Room, 1936 Quivira Way, San Diego, CA 92109. Kevin Heaton of the DEH has indicated that a talk on Permitting and Permit Waivers for Borings and Groundwater Monitoring Wells will be on the SAM update forum agenda. The full agenda is not available at this time. However, in the future for further information please go to: http://www.co.san-diego.ca.us/deh/lwq/sam/update_agenda.html#forum_2006.

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
- San Diego State University, Geology Department <http://www.geology.sdsu.edu>



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EMPLOYMENT

As a service to our members, AEG San Diego welcomes job postings - either for open positions or jobs wanted. Please contact Jonathan Goodmacher (jgoodmacher@ninyoandmoore.com) for information on advertising in this newsletter. The cost for an ad is \$25 per month. As an incentive your ad posted in the San Diego Chapter Newsletter is included in the version of the newsletter posted on the Southern California Section website. A check for \$25 made out to the San Diego AEG should also be mailed to Steve Bradley, AEG San Diego Treasurer, Tetra Tech EMI, 1230 Columbia St., Ste. 1000, San Diego, CA 92101.



TerraPacific Consultants, Inc. is a San Diego based geotechnical consulting firm working on projects throughout the southwest. We concentrate on forensic engineering, evaluations for new commercial/industrial/custom residential construction, as well as, oversight during foundation repairs. We are seeking motivated engineers and geologists who are interested in finding solutions to challenging geotechnical problems.

Field work and out of town travel will be required on a regular basis throughout California, Nevada, New Mexico, Arizona, and Hawaii. All positions demand an organized self-starter with "hands-on" management ability.

We are looking for an honest, hard working, technically minded professional to perform subsurface investigations, collect field data, perform geotechnical analysis, and write reports. Construction inspections will also be required. Qualified candidates should possess good communication skills. Field work and out of town travel will be required on regular basis. Position demands a motivated, organized, self-starter with the ability to get things done in a timely manner. We offer the ability to learn and grow your career by working with seasoned professionals. Please visit our web site at www.terrapac.net.

Senior Geotechnical Engineer

Position responsibilities include project management, collecting field data, analysis, report writing, and client communication. Oversight of construction inspections will also be required. Qualified candidates must be a licensed G.E., have a minimum of 8 years experience and good communication skills. At least 2 years experience in geotechnical forensic investigations is preferred. Experience in testifying is a plus.



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Project Geotechnical Engineer/Geologist

Position responsibilities include project management, collecting field data, analysis, report writing, and client communication. Oversight of construction inspections will also be required. Qualified candidates must be a licensed PE (GE is a plus), PG or CEG, have a minimum of 5 years experience and good communication skills. At least 2 years experience in geotechnical forensic investigations is preferred.

Staff Geologist/Engineer

We are looking for an honest, hard working, technically minded graduate to perform subsurface investigations, collect field data, perform geotechnical analysis, and write reports. Construction inspections will also be required. Qualified candidates should possess good communication skills. Some experience in geotechnical investigations is preferred but recent graduates will be considered. Field work and out of town travel will be required on regular basis. Position demands a motivated, organized, self-starter with the ability to get things done in a timely manner.

The right, qualified, independent and hard-working individual will be offered an excellent salary (commensurate with their experience), profit sharing/401K plan; company sponsored insurance program, and bonuses. If you are interested in pursuing quality in your life and your career please submit a resume and cover letter to: TerraPacific Consultants, Inc., 12245 World Trade Drive, Suite G, San Diego, CA 92128; or by fax to 858-521-1199; or by e-mail to jimg@terrapac.net.



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HARGIS + ASSOCIATES, INC.



HYDROGEOLOGY • ENGINEERING

Mission City Corporate Center

2365 Northside Drive, Suite C-100

San Diego, CA 92108

Hargis + Associates, Inc., a San Diego based consulting firm specializing in **hydrogeology and engineering** currently has opportunities in our San Diego, California office. We are currently looking to fill the following positions:

Staff Engineer: Candidate would have a B.S. Degree in Chemical, Civil, or Mechanical Engineering, EIT Certification and/or a Masters Degree is a plus. Only entry level candidates will be considered. Candidate should possess strong writing and presentation skills. Position will be based in San Diego, California, and will require some travel and field work. OSHA 40-hour training preferred, but not mandatory.

Project Hydrogeologist: Candidate would have a B.S. Degree in Geology, and 5 to 7 years relevant experience, including experience with sampling, well installation, work plan and report preparation, project management, cost estimating and scheduling. California Professional Geologist (PG), or ability to obtain within one year preferred. Masters degree or computer groundwater modeling experience is a plus. Candidate should possess strong organizational, writing and presentation skills. Position will be based in San Diego, and will require some travel and field work. OSHA 40-hour training required.

Hargis + Associates offer competitive salaries and benefits, and a challenging work atmosphere. Hargis + Associates is an Equal Opportunity Employer. To learn more about Hargis + Associates, please visit our website at: www.hargis.com.

No phone calls please. Qualified candidates should send resumes, along with a cover letter summarizing experience and salary requirements to:

Hargis + Associates, Inc.
Attention: Phil Rosenberg
2365 Northside Drive, Suite C-100
San Diego, CA 92108



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Ninyo & Moore has openings in the geotechnical division of our San Diego, California office for project-level soil engineers and geologists. Candidates should possess a Bachelor's degree (Master's a plus) in engineering and/or geology and have a minimum of three years experience. Professional registration is a plus. Must be able to effectively work in a cooperative, team-oriented environment. The candidate should possess good computer skills (e.g., Word, Excel, etc.), have excellent verbal and written communication skills, and be energetic.

Ninyo & Moore is an equal opportunity employer and offers excellent benefits and a rewarding professional environment. Compensation is competitive and commensurate with experience. Please respond to nmcareers@ninyoandmoore.com

CHAPTER CONTACT INFORMATION

President	Jonathan Goodmacher	Ninyo & Moore	858.576.1000	jgoodmacher@ninyoandmoore.com
Secretary	Jacques Lord	Shaw Environmental	(619) 398-3220	jlord@onesullivan.com
Treasurer	Steve Bradley	Tetra Tech EMI	619.321.6717	steve.bradley@ttemi.com

Analysis of Landslides: Shear Strengths, Testing, and Stability Methods

Three ways to register:

1. Call: (1) 217-840-8263

2. E-mail information required below to:
starkconsultants@sbcglobal.net

3. Mail completed form to:
Stark Consultants, Inc.
P.O. Box 133
Urbana, IL 61803-0133 USA

Enrollment is limited to 45 people to facilitate discussion so please register early. Registration deadline is 3 March 2006. Full payment of \$350 must accompany registration.

Name

Title

Company

Address

City/State/Zip

Phone

E-mail

Method of Payment

Check enclosed (make check payable to Stark Consultants, Inc.)

Charge my registration fee to: Visa MasterCard
Card no.: _____

Exp. date: _____

Your Signature: _____

PLACE MAILING LABEL HERE

Analysis of Landslides: Shear Strengths, Testing, and Stability Methods



Presented By:

Timothy D. Stark, Ph.D., P.E.
Professor of Civil Engineering
University of Illinois
Urbana, Illinois

March 22, 2006

Check-in begins: 7:30 a.m.
Course: 8:00 a.m. – 4:00 p.m.

Miramar Officer's Club
Bldg. 4472 Anderson Ave.
Marine Corps Air Station Miramar
858-577-4808

In cooperation with the ASCE
San Diego Geotechnical Group

Course will be held prior to the Geotechnical
Group Dinner Meeting on March 22, 2006

Stark Consultants, Inc.
P.O. Box 133
Urbana, IL 61803-0133 USA

Analysis of Landslides: Shear Strengths, Testing, and Stability Methods

An advanced, discussion-oriented short course on landslide investigations & analyses for engineers and geologists.

Why You Should Attend:

After completing this course, you should:

- Have a knowledge of current geotechnical engineering practices for investigation of landslides and applicable shear strengths, shear strength testing, and static and seismic stability analyses for landslides
- Understand the measurement and selection of the peak, fully softened, and residual shear strengths for use in stability analyses
- Understand the importance and application of a cohesion value in stability analyses
- Become more proficient in reviewing slope stability problems

The **registration fee of \$350** (US currency) covers one full day of instruction, landslide reference materials and short course notes, continental breakfast, refreshments, and luncheon. The short course materials are not available for sale to persons not attending the course. Payment must be sent with the attached registration form.

Cancellation: Advance enrollment is required. If you cannot attend, please notify us immediately. We will try to refund as much of your fee as possible or you may select someone to assume your enrollment position. This is a limited enrollment course and “no-shows” will be charged the full amount of \$350 if they do not cancel before the start of the course.

*Please contact Timothy D. Stark at
217-840-8263 or
starkconsultants@sbcglobal.net
for additional information.*

Preliminary Course Outline

Landslide failure modes

Rotational
Translational
Infinite slope
Debris flow
Mudslide

Landslide limits & cross-sections

Failure surface location
Use of FLAC
Interpretation of slope inclinometers

Stability Methods

Static and seismic slope stability methods
2-D v. 3-D stability analyses for landslides
Importance of cohesion in stability analyses

Types of shear strengths for landslides

Intact peak shear strength
Fully softened shear strength
Residual shear strength
First-time landslides v. ancient landslides
Numerical difference between fully softened and residual strength and relevance to landslides
Existence of cohesion in fully softened and residual strength conditions

Laboratory tests and interpretations

Direct shear
Torsional ring shear
Triaxial compression
Different specimen procedure for fully softened and residual strength
Effect of mode of shear
Effect of sample preparation and ball-milling

Selection of shear strength parameters

Laboratory direct shear, ring shear, and triaxial compression tests
Fully softened shear strength
Residual shear strength
Effect of healing on strength

Preliminary Course Outline

Use of correlations for design

Effect of liquid limit, clay-size fraction, and effective normal stress
Correction factor for not ball-milling sample – liquid limit and clay-size fraction
New fully softened and residual shear strength correlations

Recommendations for landslide analyses

Slope stability methods
Stress-dependent failure envelope
Use of cohesion for fully softened and residual conditions
Remedial measures

Course Instructor:

Timothy D. Stark, P.E., is a Professor of Civil Engineering at the University of Illinois at Urbana-Champaign. Dr. Stark has been teaching and conducting research on static and seismic slope stability analyses and soil shear strengths for landslides since 1986. His research has led to a better understanding of design shear strength values, shear strength test procedures, and 2-D and 3-D stability analyses for landslides. Dr. Stark has received a number of awards for his teaching and research activities including: elected Fellow of ASCE (2005), the R. M. Quigley Award from the Canadian Geotechnical Society (2003), Standards Development Award from the ASTM (2002), Walter L. Huber Research Prize from the ASCE (1999), University Scholar Award from the University of Illinois (1998), Thomas A. Middlebrooks Award from the ASCE (1998), Dow Outstanding New Faculty Award from the American Society for Engineering Education (1994), and the Arthur Casagrande Professional Development Award from the ASCE (1992).