

ASSOCIATION OF ENGINEERING GEOLOGISTS

SAN FRANCISCO SECTION

NEWSLETTER

"Serving Professionals in Engineering Geology, Environmental Geology and Hydrogeology Since 1957"

March 2001

Meeting Details:

- Tuesday, March 13th
- Sinbad's, San Francisco
- 6:00pm – Cocktail Hour
- 7:00pm – Dinner
- 8:00pm – Program Talk
- \$30 members, students ½ off who call Dr. Williams, 408-924-5050.
- **Reservations due by Friday, March 9th. See back cover for RSVP form.**

Section Officers, 2000-2001

Chair

Jason Preece
Camp, Dresser & McKee, Inc.
925-933-2900
preeceje@cdm.com

Vice-Chair

Charles Kissick
Sigma Prime Geosciences
650-726-7198
sigmaprm@pacbell.net

Treasurer

Corinne Stewart
Pacific Geotechnical
408-629-7801
stewart_corinne@hotmail.com

Secretary

Anne Rosinski
CDMG
415-904-7730
arosinsk@consvr.ca.gov

Committee Chairs

Membership Chair

Chris Hundemer
Upp Geotechnology, Inc.
408-275-1336
rockman8@pacbell.net

Short Course Chair

Ernest Solomon
650-948-3528
esolo@earthlink.net

Field Trip Chair

Drew Kennedy
Gilpin Geosciences
north35west@earthlink.net

MARCH PROGRAM: STUDENT NIGHT (3 Programs)!

Program 1: Mechanical Interaction Between the July 1967 Mudurnu Valley and August 1999 Izmit Earthquakes Using Detailed Fault Mapping and 3-D Boundary Element Modeling by Jordan Muller, Stanford University

The last major rupture prior to the Izmit and Düzce earthquakes in 1999 was the Ms = 7.1 July 22 1967 Mudurnu Valley Earthquake to the southeast. The potential for future failure along the North Anatolian fault zone due to the stress perturbation associated with the 1967 rupture has been modeled by earlier workers. These models, however, did not identify and address several specific problems related to this interaction partly because of the lack of detailed fault configurations and knowledge of the 1999 events.

The unresolved questions we hope to answer are the following: 1) Why did the 1999 rupture not occur along the western continuation of the fault that ruptured in 1967? 2) What would be the consequence if the 1967 rupture continued in the subsurface along the mountain front? 3) What would be the consequence if the 1967 rupture continued along the alignment of local minor failures toward Lake Sapanca reported by earlier workers? We have tested these three scenarios (referred to as Case 1,2,3) using a 3-D boundary element method (Poly3D) to calculate Coulomb stress changes on major faults within the region due to slip associated with the 1967 Mudurnu Valley Earthquake. We find that only one of the three scenarios (Case 3), which assumes that the subsurface rupture of the 1967 Mudurnu Valley Earthquake deviates from the mountain front fault near Karapurcek and continues towards the town of Sapanca (along the alignment of the reported minor surface ruptures), produces enhanced tendency for subsequent right-lateral slip along the 1999 Izmit Earthquake fault segments. In this case, however, the area of greatest increase in right-lateral Coulomb stress is located near Lake Sapanca, nearly 50 kilometers from the reported epicentral region near Gölcük. This result matches well with the seismic inversion analysis of Cemen, et al. (2000) which suggests that there were two subevents of moment release during the Izmit earthquake, the first and larger of which is located near Arifiye, the second and smaller near Gölcük. This study shows that minor changes in fault geometry and slip distribution can have a significant impact on determining which fault strand or segments within a larger fault system may be most susceptible to future failure.

Speaker's Biography

Jordan Muller is a second-year Ph.D. student at Stanford University interested in the role that prior earthquakes and mechanical fault interaction play in triggering earthquakes. Mr. Muller's research will be applied to predicting seismic hazards, particularly along the North Anatolian fault in northwestern Turkey. In 1999, he received a M.S. in geology and geophysics from the University of Hawaii where my thesis research focused on the mechanics of landslide rupture surface growth and the propagation of buoyant magma beneath volcanoes. Mr. Muller received a B.A. in geology from Franklin and Marshall College in Lancaster, Pennsylvania in 1996. His undergraduate research investigated faulting and deformation at the northern termination of the San Andreas fault near Point Delgada, California. He is interested in geologic hazard mitigation and the consulting industry and has worked with Woodward-Clyde in Honolulu, HI and Cotton, Shires, and Associates in Los Gatos, CA.

Committee Chairs

CCGO Liaison

Betsy Mathieson
Exponent Failure Analysis
emathieson@exponent.com

Legislative Chair

Michael Linden
ENGEIO Incorporated
mlinden@engeio.com

Publications Chair

Patrick Drumm
Geolith, Inc.
pldrumm@geolith.com

Awards Chair

Keil Albert
Geoconsultants, Inc.
kalbert@ix.netcom.com

Past Chair

Gary Pischke
Earth Systems Consultants

Newsletter Editor

Gretchen Mora
aegnews@visto.com

The AEG San Francisco Section Newsletter is a monthly publication of the San Francisco Section of the Association of Engineering Geologists.

Submittals:

Deadline is the 20th of each month for the following issue. Contact Gretchen Mora by email (aegnews@visto.com) for submittal. All submittals are subject to editing for space. Job ads are free if brief.

Address changes: Please submit to Section Secretary, Anne Rosinski at 415-904-7730.

Advertisements:

The newsletter's circulation is about 360 within northern California. Use these low rates to expand your market:

	Monthly
Business card	\$ 15
1/4 page	\$ 30
1/2 page	\$ 60

Sponsorship:

Become a Section Corporate Sponsor! Donate to the Section and receive free advertisement each month, recognition for your donation at Section Meetings, and more! For more info on Section Sponsorship, Contact Jason Preece.

Program 2: Numerical simulation of large fast moving landslides by David M. Doolin, University of California, Berkeley

Large, fast moving landslides, while geologically common, occur infrequently at human time scales. These events often cause large economic damages and much human suffering. Because it is not feasible to simulate millions to hundreds of millions of cubic meters of rock moving at possibly tens of meters per second, and analytic solutions do not exist, numerical simulation offers the possibility of quantitative study of an otherwise intractable problem. Simulating these events using discontinuous deformation analysis will be discussed along with the methodology being developed to assess the accuracy of the simulations.

Speaker's Biography

Mr. Doolin earned his BS in Geology and MS in Civil Engineering at the University of Tennessee, Knoxville. He is currently a PhD candidate in Civil Engineering at the University of California, Berkeley. His research topic concerns numerical simulation of large fast moving landslides.

Program 3: Geomorphic Study of Searsville Lake Watershed, Portola Valley, California by Caroline Frey, San Jose State University

Since its construction in 1892, Searsville Lake has experienced a rapid filling by alluvium. This study, based on a geomorphic map of erosional and depositional features along the tributaries to Searsville Lake, provides a better knowledge of the geomorphology and geomorphic processes active in this watershed.

The input of the geomorphic map into a Geographic Information System (GIS) software showed the importance of geology and slope in determining erosional and depositional patterns within Searsville Lake watershed.

In a further step, GIS was used to classify reach types based on sediment production and storage within the channels. This reach map shows that 54% of the reaches produce significant amounts of sediment. A correlation of the reach map with a geologic map and a map of major landslides suggests that the San Lorenzo formation, the Lambert shale and large hillslope movements are major factors in determining sediment production of a reach.

Speaker's Biography

Caroline Frey grew up in Switzerland where she received her MA in Geography from the University of Lausanne in 1997. Her thesis work took her to Niger in western Africa where she studied the impacts of a nonprofit organization on the agricultural and social environments. After graduating she came to California where she volunteered at the U.S. Geological Survey in the Water Resources Department in Menlo Park for a year. In 1998 she went back to school to obtain a MS in Geology from San Jose State University. Since January of this year she is working for Cotton Shires and Associates in Los Gatos.

NEW! MicroPurge® basics equipment has all the engineering breakthroughs to make ground water sampling easier!



Low-Flow sampling provides **greater accuracy** and **lower cost** than traditional ground water monitoring methods. QED innovations make sampling faster and easier.

- **Simple flow rate control** — with quick, easy up/down arrow keys.
- **Stabilization alert** — PurgeScan™ technology gives OK to sample.
- **Automatic drawdown control** — prevents excessive well drawdown.
- **Revolutionary Sample Pack** — backpack controller with built-in gas supply.



For your FREE booklet: Low-Flow Purging Procedures with MicroPurge Basics

CHAIR'S MESSAGE

Dear Fellow AEG San Francisco Section Members,

This month I struggle with what to say. I want to be upbeat as always, however, I feel being upbeat would be somewhat misleading. Whereas I don't want to discourage our membership with a bunch of bad news because tough times are ahead of us, I also don't want to give the impression that things are rosy and there is nothing to worry about. Without being forthright with information, whether good or bad, I'm merely operating in a vacuum and will drive the Association into oblivion.

Some of my past messages have touched on some issues our Section is struggling with - financial troubles, declining membership, not providing adequate service - to name a few. I guess I hoped I could just ignore these problems and they would go away. However, they keep coming back to haunt us.

Headquarters has given us the inventory of this year's enrolled members. The numbers are discouraging. Thus far, our membership count is only 236. For comparison purposes, last year's total ultimately reached about 325 and this was only after a laborious campaign drive was put on by Headquarters last Summer to call people and remind/encourage them to renew their membership. Chris Hundemer, our Membership Chair, has posted two lists in this month's newsletter regarding membership renewal. Please take the time to read them. The importance of maintaining strength in membership cannot be overstressed as my next paragraph will illustrate.

As I have mentioned before, our Section is currently experiencing a treasury crisis comparable to our nation's state of economy. I don't know how much money you all have lost in your retirement accounts due to the stock market's present volatility (depressing isn't it), but our Section's account balance is showing an equal amount of red. This is primarily due to the decline in our membership. Bottom line is, those who have not yet renewed their membership this year will not be receiving next month's newsletter. There simply isn't enough money in our account to continue mailing out 300+ newsletters each month. We will also stop mailing newsletters to the local schools, other sections, other associations, and certain other governmental agencies. If these people are reading them, are interested in them, or are otherwise using the newsletters for whatever, they can now download them from our website. Since we can not function with a deficit, next to go will be one of the following: our membership to CCGO, our state lobbyist, our sponsoring of student dinners, our financial contributions to publications, our support for sending a representative to the bi-annual Association board meetings, etc., etc., etc. This is serious, folks!

What can we do? Sure, we can raise money from other sources, and we are doing that. The problem is there are only a handful of us doing work to raise this money. Ernie, our Short Courses Chair, is making some with his efforts to organize and put on short courses. Gretchen, our Newsletter Editor/Webmaster, made a nice chunk of change selling T-shirts with the AEG logo. Bob Tepel and the whole Annual Meeting Committee brought in surplus funds through an enormous amount of effort in making the meeting profitable, which should bring

our Section some rewards. I'm hoping for a robust field trip season to bring in some spare dough. Finally, I managed to wrangle one of my favorite vendors into being a meeting sponsor, which brought in some buck-a-roos, and was a win-win situation by opening up a advertising avenue while presenting some useful product information to our meeting attendees. Come on people, can't you spend a few moments calling your favorite connects and offering them the opportunity to sponsor a meeting?

Encourage a co-worker to join AEG. Tell them their first year Section dues are covered by us and that's a deal. Otherwise, please get involved by joining one of our outstanding committees. We have six - Awards, Field Trips, Legislation, Membership, Publications, and Short Courses - and they all have Chairs! Also, if you are interested in being either the Newsletter Editor or Webmaster next year, get in touch with Gretchen or me soon. I'm sure the positions will fill up quickly.

On a lighter note, please welcome Pat Drumm as our new Publications Committee Chair! Look for his posts on the status of the millennium edition of Engineering Geology Practice in Northern California and other reviews/recommendations on newly-released publications.

Call me, email me, come talk to me, I need your feedback! Until next month, and I promise I'll go lighter,

JASON PREECE, San Francisco Section Chair

MARCH SECTION MEETING DETAILS

The March Section Meeting is our Annual Student Night. We have 3 presenters from Bay Area Universities. The meeting location is at Sinbad's Restaurant, just south of the Ferry Building on Embarcadero in San Francisco. **Please make your reservations by Friday, March 9th! See the back cover for the RSVP form.**

FEBRUARY SECTION MEETING NOTES

The February meeting started with a short presentation by Thomas Judy, a representative of QED Environmental Systems, Inc. (<http://www.qedenv.com>). This company, which provides a wide range of groundwater sampling and remediation equipment, is our first section meeting sponsor.

The February meeting was also a joint meeting with the American Institute of Professional Geologists (AIPG). The primary speaker for the evening was Stephen Testa, of Testa Environmental Corporation. Mr. Testa is a former National President of AIPG, and earned his BS and MS degrees from CSU Northridge, in 1976, and 1978 respectively. His career has focused on environmental and engineering geology, and over the years he has published over 100 papers and 11 books on related subjects.

Continued on page 4

Continued from page 3

The subject of Mr. Testa's talk was the life and career of William P. Blake, a pioneer in the early geologic exploration of the state of California. Mr. Blake's accomplishments are numerous, and yet, not widely recognized. His early career was spent working as a geologist on the Pacific Railroad Survey (1853-1854). He correctly predicted the economic potential of the Bodie Mines and oil and gas deposits in the L.A. basin, as well as the potential for large earthquakes throughout the state. In addition, before John Muir's work relating to Yosemite Valley was published, Blake published a paper advocating glaciation as the process, which sculpted the region. Unfortunately, Blake's work was written in French, and therefore, received little notice when published. Mr. Blake's skills also extended beyond the field of geology. He was employed by the precursor of the Smithsonian Institution, and one of the tasks to which he was assigned was to formulate a method for cataloguing every type of data. Among those who participated in the peer review process of the paper Blake wrote in 1873, was Melvil Dewey. In 1876, the report Dewey published on the same subject (the Dewey Decimal System) was the exact same number of pages as the report produced by Blake, and, featured classifications that were virtually identical to those Blake proposed. Blake was not self-aggrandizing however, and never sought recognition for his efforts, or to have any of the many geologic features, which he discovered and mapped throughout his career, named for himself.

ANNE ROSINSKI, Section Secretary

UPCOMING MEETINGS

If you would like to speak at a Section Meeting, or know someone who would be a good speaker, contact Charlie Kissick, Vice-Chair, at 650-726-7198.

CCGO ACTIVITIES

CCGO BOARD MEETINGS: To facilitate communication, we have quarterly board meetings. The meetings move between Los Angeles, San Francisco and Sacramento areas. The following schedule has been established: May 5, 2001 in San Francisco Bay area; August 4, 2001 in Sacramento; and contrary to earlier announcements, the last meeting will be October 27, 2001 in the San Francisco Bay Area.

MARCH 1, 2001: 2ND ANNUAL SACRAMENTO DRIVE-IN
We will meet with a few selected legislators for 15 to 30 minute meetings, as well as the California Division of Mines and Geology and the Executive Director of the BRGG. The meetings were selected due to the interests of the legislators in natural resources and public policy. Call Jim Jacobs (510) 232-2728; ext. 222 to reserve your spot on the CCGO delegation!

APRIL 4, 2001: FUNDRAISER DINNER FOR CCGO

Dr. Kenneth R. Lajoie, U.S.G.S., retired
Topic - The Origin of San Francisco Bay.

During his 30-year career, Dr. Lajoie focused on the environmental

geology of the San Francisco Bay Region, including coastal erosion, earthquake hazards and the mapping of earthquake ground ruptures. The San Francisco Bay, one of the most beautiful places in North America, didn't exist just 10,000 years ago. Lajoie shares his knowledge of the events that have shaped our region's geography and history.

WHEN: Wednesday April 4, 2001

WHAT: Dinner: 7:00 pm, Presentation: 8:00 pm

WHERE: Old Spaghetti Factory – Jack London Square, Oakland

COST: \$25, Reservations will be required.

Questions: Call John Karachewski (925) 424-5063

LEGISLATION: For 2001, The Geologists and Geophysicists Act is being revised. The new legislation when it is introduced will be monitored by CCGO and the outcome must be steered so that laws and regulations reflect sound geologic principles and concepts. We are a small profession, but we need to be united for important legislation that affects all geologists.

MEMBER INPUT: CCGO values your ideas and if one of our topics is appealing to you, please call me at (510) 232-2728; ext. 222 or e-mail me of your interest at augerpro@jps.net. The success of CCGO and our profession is up to you. Please consider making that 2001 pledge to CCGO today.

NOMINATIONS FOR AEG AWARDS OPEN

The Awards Committee is requesting your help in announcing that nominations are now being accepted for 2001. The Awards Committee considers nominations for the following awards (for more complete information, please consult your Directory):

1. Douglas R. Piteau Outstanding Young Member Award – This award is presented to a Member or Associate Member who is age 35 or under, and has excelled in one or more of the following 3 areas: technical accomplishment, service to the Association, and service to the engineering geology profession.
2. Claire P. Holdredge Award – This award is presented for a publication by a Member(s) within the past 5 years that is judged to be an outstanding contribution to the engineering geology profession.
3. Floyd T. Johnson Service Award – This award is presented to a Member for outstanding active and faithful service to the Association over a minimum of 9 years. Contemporary Board members are not eligible until 1 year after leaving office. Nominations must be validated via endorsement by 3 Members having different Section affiliations. This award is not necessarily conferred annually.

The deadline for nominations to be considered for awards in 2001 is March 30, 2001. Please send nominations to Bill Cole, AEG Awards Committee Manager, c/o Cotton, Shires and Associates, Inc., 330 Village Lane, Los Gatos, CA 95030 (or to bcole@cottonshires.com).

SHORT COURSE ON EXPANSIVE SOILS

Our short course chair, Ernie Solomon, has scheduled a short course for AEG members on Expansive Soils to be given by Richard L. Volpe, P.E., G.E. on Saturday March 17, 2001.

SYNOPSIS

This four hour short course is intended as an introduction to engineering geologists of the topic of expansive clays. We will examine the types of damage caused by expansive clays to homes and business that has been recorded over the past several years. We will also evaluate a field checklist for expansive soils, discuss laboratory test methods, field treatment of soils during construction, and foundation design considerations necessary to combat expansive soils.

COURSE OUTLINE

- 8:30 – 9:00 Registration
- 9:00 – 9:15 Introduction and general considerations
- 9:15 – 9:30 Definition of an expansive soil
- 9:30 – 10:15 Recognition of expansive soils - checklist
- 10:15 – 10:30 Break
- 10:30 – 11:00 Test methods
- 11:00 – 11:30 Treatment of soils
- 11:30 – 12:00 Foundation design

Location: Evergreen Room, Santa Clara Valley Water District Blossom Hill Facility*, 1020 Blossom Hill Road, San Jose CA

*(On the south side of Blossom Hill Road, one block east of the intersection of Blossom Hill Road and the Almaden Expressway.)

Fee: AEG Members \$25, non-AEG Member \$30, students \$5. Pay at the door, do not send money.

Fax or mail enrollment form below to Ernie Solomon.
Fax: 415-522-5220 (c/o Olivia Chen Consultants)
Mail: 27500 Bena Road, Los Altos Hills, CA 94022

Enrollment Form – AEG Short Course on Expansive Soils, March 17, 2001

Name: _____

Status: _____
(member, non-member, student)

Phone No.: _____

Email: _____

Thank You
Gregg Drilling & Testing, Inc!
An Outstanding Corporate Sponsor of the
San Francisco Section!

SECTION NEWS

Patrick Drumm, our new Publications Chair, mentioned at our last Section Meeting that Fieldtrip Guidebooks from the AEG 2000 Annual Meeting are still available at the great price of \$15.00. Also, the Engineering Practices in Northern California book is scheduled for publication later this year. The price will be around \$50.00, and will include over 50 papers!

DON'T FORGET YOUR MEMBERSHIP RENEWAL!

After reviewing the list of our current members for 2001, I have noticed that we have several members who have not renewed since 2000, and a few members who have not renewed since 1999. While compiling this list of members, I noticed that even I, your Membership Chair, had forgotten to send in my own renewal. Well, rest assured, I have since sent it in and corrected the situation, and I hope that those of you on the list who have also not renewed due to an oversight, please take the short time to do so as well. If there are any of you on the list who feel that you have not renewed on purpose, I would very much like to hear your reason for not renewing, and maybe together we can come to an understanding and rectify any problem you think we may be having in our section. Feel free to call or email me so that we can discuss any issue that may be affecting your reasons for not renewing your membership. Thank you.

CHRIS HUNDEMER, Section Membership Chair

List of Members Who Have Not Yet Renewed in 2001

Bruce Abelli Amen, John Alt, Robert Baker, Michael Bennett, Benjamin Benumof, Nathan Berube, Timothy Best, Michael Bonkowski, Tim Boyd, Tor Brekke, Andrew Brownstone, Thomas Brundage, David Buckley, Michael Carey, Jose Cercone, Chris Christensen, Kevin Clahan, John Cogan, Steven Connelly, Sadek Derrega, David Dobson, Victor Early, Mark Eischeid, Sandy Figuers, G. Reid Fisher, Jr., George Ford, Daleth Foster, Mark Foxx, William Frohlich, Vicky Gallardo, Eric Garcia, Robyn Gerth, Lou Gilpin, Cathrene Glick, Abbie Goldstein, Miles Grant, Joseph Hanna, Gregory Hanson, Craig Harwood, Richard Heermance, William Henrich, Eric Hilmer, David Hoffman, Sarah Holtz, Roland Johnson, Rogers Johnson, Kenneth Johnson, James Joyce, Drew Kennedy, David Klimberg, Thomas Koler, Dennis Laduzinsky, Thomas Lee, Joseph Long, Richard Makdisi, Michael Manson, Geral Marshall, Dennis Maslonkowski, Elizabeth Mathieson, Scott Mathieson, Bruce McCall, Christine Mead, Edmund Medley, JoAnna Meldrum, Peter Mesard, Julie Monet, Derek Morley, Debra Moser, James Nelson, Jeffrey Nolan, William Noryko, Matthew O'Connor, Kevin O'Dea, Charles O'Neill, John O'Rourke, William Page, Peter Palmerson, William Paris, Raymond Pestrone, David Peterson, Gary Pischke, N. Rafferty, Carolyn Randolph, George Reid, Charles Respass, David Rogers, Anne Rosinski, Julius Schlocker, William Scott, Raymond Skinner, Corinne Stewart, Seth Stiles, Philip Stuecheli, Jennifer Thornburg, Charles Trantham, James Ulrick, Richard Weiss, Jeff Werter, Timothy Whalen, Mark Wieggers, Dan Wynne.

Please renew now! Go to www.aegweb.org for an application!

MEMBER NEWS

Congratulations to **Charlie Kissick's** family! His little girl is due any day now. She may have arrived by the time this is mailed out!

Burt Hardin, Mark Smelser, and Don Braun (all members???) have moved to Eureka. Burt is now consulting and the others joined the CDMG Timber Harvest Review program.

Clif Davenport is preparing to transfer from CDMG's San Francisco office to the Santa Rosa office to head up the North Coast Watersheds Analysis program.

New USGS Map Will Improve Earthquake Hazards Assessment in the Bay Area – U.S.G.S. News Release

A new geologic map of surficial deposits in the nine-county San Francisco Bay region that can be used to evaluate earthquake hazards has been released in digital form by the U.S. Geological Survey in Menlo Park. The map shows 44 different types and ages of near-surface deposits that range from modern landfill to old stream sediments formed between 30,000 and 1.6 million years ago, and includes estimates of the tendency of these deposits to liquefy during earthquake shaking. Both the map and associated texts are digital and are available for downloading over the Web at no cost at <http://geopubs.wr.usgs.gov/open-file/of00-444/>. The map is available as a digital image at a scale of one inch = 4.3 miles, and separately as a spatial database. The database is quite detailed, with a scale of one inch = 2,000 ft for much of the region, which is equivalent to USGS 7.5-minute quadrangles.

There is no doubt that the Bay region will experience large damaging earthquakes in the future, and preparation of this map is part of a long-term cooperative effort between the USGS, the California Division of Mines and Geology (CDMG), and others to better estimate the hazard as a basis for reducing damage from those earthquakes. Most of the new mapping has been done by geologists with William Lettis and Associates, Inc., under contract to the USGS. The map, or more specifically, the spatial database, is already in use by CDMG in its program to map liquefaction hazards in the region, by the Association of Bay Area Governments in its work to better illustrate the hazard, and by Bay Area Rapid Transit (BART) in its current examination of earthquake hazard to that system. As pointed out by Jim Davis, State Geologist of California, "This new digital map of Quaternary deposits gives us a greatly refined and more confident basis for carrying out liquefaction hazard zoning in the Bay region, as required by the State Seismic Hazard Mapping Act."

The new map improves greatly over previously available information both in its detail, which is a five-fold improvement over much of the region; in its improved categorization of deposits and methods of delineating them; and in its estimation of the tendency of the deposits throughout the region to liquefy during earthquake shaking. "Most of the land adjacent to the Bay and the major rivers and streams in the region is underlain by unconsolidated deposits, and these deposits are particularly vulnerable to earthquake shaking and liquefaction of water-saturated sand and silt," according to USGS geologist Carl Wentworth. "Because this is where much of the urban development in

the region is located, the new map will be important in the ongoing effort to reduce earthquake risk in the region."

Although the new map was specifically designed to support evaluation of liquefaction susceptibility, it will also serve a critical role in estimating local amplification of earthquake shaking and will be useful for such other purposes as neotectonic analyses; engineering geologic and geotechnical evaluations; evaluating sand and gravel resources; modeling landscape evolution; and regional hydrologic and hydrogeologic characterizations.

As the nation's largest water, earth and biological science and civilian mapping agency, the USGS works in cooperation with more than 2,000 organizations across the country to provide reliable, impartial, scientific information to resource managers, planners, and other customers. This information is gathered in every state by USGS scientists to minimize the loss of life and property from natural disasters, contribute to the sound conservation, economic and physical development of the nation's natural resources, and enhance the quality of life by monitoring water, biological, energy and mineral resources.

SPONSORS SOUGHT

We are still in need of sponsors for the Engineering Geology Practice in Northern California. The Sacramento and San Francisco Sections are looking for sponsors to help with the publication of this volume. Please contact Bob Anderson (916-654-3836 or banderson@energy.state.ca.us) to help fund the cost of this joint volume.

EMPLOYMENT

SENIOR ENGINEERING GEOLOGIST

Terrasearch, Inc. is seeking a Senior Engineering Geologist at its San Jose Office to lead its geohazard investigative efforts. Minimum qualifications are 5 years experience in slope stability and seismic hazards analysis and a California CEG License. Contact R. Rowland at Terrasearch by phone, fax, mail or email:

6840 Via Del Oro, Suite 110, San Jose, California 95119-1348

Phone: 408-362-4920 / Fax: 408-362-4926

Email: richardr@terraresearchinc.com

Soil Tectonics
Soil Tectonics
Soil Tectonics

Glenn Borchardt, Ph.D. Principal Soil Scientist Cert. Prof. Soil Sci. No. 24836 P.O. Box 5335 Berkeley CA 94705-0335	510.654.1619 cell : 510.205.4562 fax : 815.327.5331 gborchardt@usa.net www.soiltectonics.com
-----------------------------------------------------------------------------------------------------------------------------------------	----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

OTHER MEETINGS

NCGS MEETING

When: Thursday, March 22, 2001, 11:00am-2:00pm
Who: Andrew Pulham, University of Colorado, Boulder
AAPG Distinguished Lecture
Topic: *Reservoir Performance and Reservoir Quality in a Sequence Stratigraphic Framework: Case Studies from Siliciclastic Reservoirs in the Americas and Europe*
Where: Chevron Overseas Petroleum, Inc., Room 1036
RSVP required.

SACRAMENTO SECTION of AEG MONTHLY MEETING

When: March 27, 2001
Social Hour 6-7PM; Dinner 7-8PM; Presentation 8-9PM.
Who: Robert Anderson, California Seismic Safety Commission
Topic: *Geohazard Siting Issues for Non-Nuclear Thermal Power Plants in California*
RSVP: Please email Diane Tibbs (youngdl1@jps.net) or call 916-933-0633 by 5:00PM on the Friday before the meeting.
Visit their website at www.aegsacto.org for more details.

CCGO FUNDRAISER DINNER

When: Wednesday, April 4, 2001
Dinner 7:00pm, Presentation 8:00pm
Who: Dr. Kenneth R. Lajoie, U.S.G.S. retired
Topic: *The Origin of San Francisco Bay*
Where: Old Spaghetti Factory, Jack London Square, Oakland
Cost: \$25.00
RSVP: Call John Karachewski (925)424-5063.

NORTHERN CALIFORNIA MTBE & FUEL OXYGENATES COMMITTEE

When: Thursday, April 5, 2001
Social 7:00 PM, Meeting 7:30 PM
Who: Mr. Joel Kiff, Kiff Analytical, Mr. Chuck Headlee, San Francisco Bay Regional Water Quality Control Board and Mr. James Crowley, P.E., Santa Clara Valley Water District
Topic: *"Evaluation of MTBE Risk at Operating Gas Stations in Santa Clara County"*
Where: At the Regional Water Quality Control Board - San Francisco Bay Region Offices located at 1515 Clay Street, Suite 1400, Oakland, CA.

GEOLOGIC HAZARDS CONFERENCE-Salt Lake City, UT

Evaluating and Reducing Geologic Hazards in Utah: Practical Information for Geologists and Engineers. The 2-day conference has been finalized for April 12 and 13, 2001 (on the Thursday and Friday before Easter) at the State Office Building Auditorium. The conference targets practicing professional geologists and engineers and will highlight the latest techniques in geologic-hazard assessment and reduction. It is principally a technical conference, but land-use planners and regulators should also find it interesting and applicable to

their roles in reviewing geologic-hazards reports and permitting development. Invited speakers will cover earthquake topics on Thursday, April 12, including ground shaking, liquefaction, surface faulting, and building code issues. On Friday, the emphasis will be on landslides, debris flows, rock falls, avalanches, and dams. Each day will conclude with a panel discussion of the invited experts to address questions from the audience regarding technical issues as well as issues of acceptable risk. Conference chairs are David Simon (Simon-Bymaster, Inc.) for AEG and John Wallace (IGES) for ASCE. The organizing committee includes Bill Loughlin (AEG, Kleinfelder), Steve Bartlett (ASCE, U of U), Gary Christenson (UGS, USSC), Darlene Batatian (UGA, Salt Lake County), and David Marble (ASCE, DWR).

The registration form can be found and downloaded from the web page below. Seating will be limited – so **register today!**
Webpage: <http://www.users.qwest.net/~ssbartlett/geohazutah.htm>.

Full Symposium Registration (non-student) = \$135
One-Day Registration (non-student) = \$75 (must specify day)
Full Symposium Student Registration = \$35 (meals included)

All registrations include abstracts and complementary continental breakfast and lunch, plus break beverages. Full registration also includes complementary conference portfolio. All registrations must be prepaid. Confirmation will be limited to the first 125 paid registrants.

CALL FOR PAPERS – AEG*AIPG 2001

The Joint Annual Meeting of AEG and AIPG will be held this year in St. Louis, September 30-October 7. Abstract submittals are being accepted until May 1, 2001. Email to meetings@aeg.tamu.edu, or submit your abstract on AEG's web page: www.aegweb.org, or mail on a disk to: AEG*AIPG 2001 c/o Julie Keaton, 130 Yucca Drive, Sedona, AZ 86336-3222. Abstract must not exceed 250 words and must include author's full name, company name and address below title. Please include your daytime phone number.

JUDGES NEEDED FOR SCIENCE FAIR

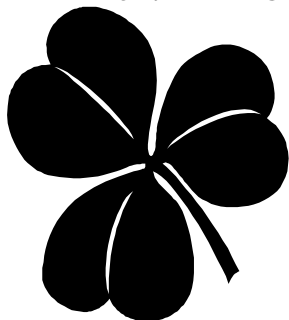
The Intel International Science and Engineering Fair (Intel ISEF) is the Olympics, the World Cup and the World Series of science competitions. Held annually in May, the Intel ISEF brings together over 1,200 students from 48 states and 40 nations to compete for scholarships, tuition grants, internships, scientific field trips and the grand prize: a trip to attend the Nobel Prize Ceremonies in Stockholm, Sweden. They need judges in many categories. Applications are available online at <http://www.sciserv/isef/judging/> or <http://www.intelisef2001.org/judging/>.

Thank You to AEG Corporate Sponsors from the San Francisco Section!

Applied Geomechanics – Santa Cruz
Exponent Failure Analysis – Menlo Park
Upp Geotechnology – San Jose

Gretchen Mora – Newsletter Editor
37192 Oak Street
Fremont, California 94536

HAPPY ST. PATRICKS DAY!



AEG March Newsletter
March 13 – Monthly Section Meeting
Sinbad’s Restaurant, San Francisco

CHECK OUT THE AEG SF SECTION WEBSITE AT WWW.AEGSF.ORG!

RESERVATION FORM – March 13, 2001 AEG Dinner Meeting, 6pm
Sinbad’s Restaurant, San Francisco

Please Fax your reservation to arrive before noon, Friday, March 9th

Fax to Corinne Stewart, c/o Pacific Geotechnical Engineering (408-779-6879) - Check or Cash at the door – Do not mail or fax payment.

Dinner and Meeting Cost: \$30 – members or spouses \$15 – student members \$32 – others

NAME _____ COMPANY _____

TELEPHONE NO. _____ NO. OF PEOPLE _____

PERMANENT RESERVATION FORM

AEG San Francisco Section Monthly Dinner Meetings are usually but not always on the 2nd Tuesday of each month.

I will attend and make payment for each meeting. If I am unable to attend I will fax or mail a cancellation notice to

Corinne Stewart (fax: 408-779-6879) by noon, the Friday before the meeting.

NAME _____ TELEPHONE NO. _____

BILLING ADDRESS _____

SIGNATURE _____ DATE _____

Dinner Costs are normally but not always: \$30 – members or spouses \$15 – student members \$32 - others
