**Association of Engineering Geologists**

**Southern California Section**

**NEWSLETTER - January 1990**

**Dinner Meeting Tuesday January 9th**
- The Quiet Cannon Restaurant
  901 North Via San Clemente
  Montebello
- Cost - $20.00 (Full-Time Students - Free)
- For reservations call by January 5th
  Charles Daughtery (818) 796-3933 (Leave Your Name & Number of People in Your Party if Answering Machine)

Make reservations by Noon on the Friday before the Meeting
- 5:30 Social Hour
- 6:45 Dinner
- 7:30 Announcements
- 8:00 Program
- 9:00 Section Affairs

**Program**

**TOPIC**

**International Decade for Natural Disaster Reduction**

**SPEAKER** Shirley Mattingly, Planner
City of Los Angeles

**MAP to Meeting**

2550 Beverly Blvd.
Los Angeles, CA 90057
Program

Topic & Speaker
International Decade for Natural Disaster Reduction
Shirley Mattingly

This month’s topic, as we enter 1990, will introduce the International Decade for Natural Disaster Reduction (IDNDR), and how it is being implemented here in Southern California. The concept of a cooperative program to reduce the impact of natural hazards was first presented by Dr. Frank Press in his keynote address to the Eighth Worlds Conference on Earthquake Engineering in 1984. The 1980’s have seen some truly devastating geologic events. It is the goal of the IDNDR to sponsor a cooperative program of research, information dissemination, technical assistance, and education that will serve the world in minimizing these disasters. As engineering geologists, we are in the forefront of geologic hazard abatement, and we should all be aware of this effort, co-sponsored by the UN, the USGS, the State of California, and the City of Los Angeles.

Shirley Mattingly is the Director of Emergency Management for the City of Los Angeles, and the alternate member (for Mayor Tom Bradley) to the U.S. National Committee for the IDNDR. She received her B.S. from Occidental and her M.S. from UCLA, and was a Fulbright Scholar in Quito, Ecuador. Ms. Mattingly is Vice-Chairperson for the Policy Advisory Board of SCEPP, Chairperson for the Emergency Preparedness Commission for both the County and City of Los Angeles, and thoroughly familiar with those “what if?” questions that we have all been asking ourselves since October 17th.

THIS MONTH

January 1990

This month’s speaker, Shirley Mattingly, will provide some insight to the goals of the International Decade for Natural Disaster Reduction. She will discuss the plans the City and County of Los Angeles have toward reducing the problems resulting from, for example, our earthquakes and floods. These issues are continuing to become more complex as developments expand into less desirable areas. If natural disasters are not considered in the development process many lives will be lost and economic hardships will occur.

Last month Fred Chen, President of MAA Engineering Consultants, Inc., discussed the techniques being employed to stabilize soils in areas that have dredged spoil fill material. He focused on the work taking place in Los Angeles harbor area. An area of about 190 acres, to be expanded with fill material over the next few decades all the way to the breakwater. A few of the techniques discussed to stabilize the soil included: 5,000-10,000 psi pressure grouting; soil mixing walls; and gravel drain pier/piles. Fred appeared to be most pleased with the results from the gravel drain pier method.

Rick Linsky, with Leighton & Assoc., Inc., also showed slides taken following the Loma Prieta (Santa Cruz) Earthquake. Many ground ruptures and liquefaction damage were evident and many large redwood trees showed “topping”, i.e., the trees shook so much from the earthquake that they snapped/broke off a few tens of feet above the ground surface.

Charles G. Sudduth, a geotechnical engineer for Los Angeles County, at last month’s meeting said that he took exception to the protest AEG gave toward the changes to the building code he authored. From the procedures he described he followed the appropriate steps in soliciting comments or questions about the proposed changes, however, it is evident that these procedures need to be updated to include solicitation of opinions from active AEG members.

Ed Kiesling (CDMG - LA office) came to the December meeting with several copies of a couple of publications he picked up at the USGS LA office. These related to the Loma Prieta Earthquake: USGS Circular 1045 “Lessons Learned from the Loma Prieta, California, Earthquake of October 17, 1989,” and a USGS pamphlet that describes through graphics and text a brief geologic view of what caused the Loma Prieta earthquake and implications for future California earthquakes. The 1045 Circular is free and can be obtained from the LA office or from U.S. Geological Survey, Books and Open-File Reports, Federal Center, Box 25425, Denver, CO 80225. The quality of the layouts and speed that these publications were done is impressive.

Continued on page 3
Because the last three years produced below average precipitation, 1988-89 one of the driest in record, it is assumed that record-low volumes of water recharged in our ground-water basins. This year's record so far indicates that once again we will have another dry year. Many basins now have record low ground-water elevations. This increases the pressure on the water community to provide adequate supplies for this undervalued commodity. Monies and labor to deepen wells and pumps, and to prepare for recharging ground-water basins need to be planned for before crises arrive. If anyone has (serious) predictions on what the weather will be like in the next few months, please call Kelly Rowe (714) 474-9344 and it will be reported in this newsletter.

As we progress through this year please remember two of our goals:

- Strongly encourage participation of interested students in engineering geology. This will be accomplished through 1) a $10/year fee for full-time students for the newsletter and 2) a free dinner for full-time students at the monthly meetings. Members should actively invite students to come to the meetings, free of charge. We need to encourage bright and potentially bright students to get into the interesting and rewarding field of engineering geology rather than other less fun professions.

- Encourage participation of members who are reluctant or unable to come to the Montebello restaurant location for the monthly meetings. This will be accomplished through 1) a meeting located in the Mission Viejo/Irvine area in May, and 2) a meeting located in the northern San Fernando Valley area in September. If anyone has suggestions on suitable meeting locations for these events please call Eldon Gath at (818) 965-4874 or Bob Hollingsworth at (818) 889-0844.

You may notice that the last page of the newsletter advertises for you to renew your annual fees. The newsletter, from January to February, will be sent out to all International AEG members listed in the Southern California Section to encourage that they participate locally. Please note that your local section fees operate the section's activities and the annual fees to International AEG do not help operate the section. Therefore, based upon the response we get from the returned mail you will simply be on or off the newsletter mailing list. In the interest of saving printing & postage costs you will not get an invoice notifying you of your renewal opportunity. If you have any questions about getting onto the mailing list feel free to call the Secretary/Newsletter Editor - Kelly E. Rowe (714) 474-9344 or (818) 965-4048.

Hugh Robertson, AEG Southern California Section Legislative Chairman, took time recently to visit with William J. Keese in Sacramento. Mr. Keese is our legislative advocate (lobbyist) for AEG members in California. Hugh provided the following update on Mr. Keese's activities during the past year and plans for the upcoming year:

The 1988-89 legislative session concluded with no legislation adverse to geologists be passed. Our number one priority continues to be a rebuttal of the assertion that there is no need for registration of geologists. The two bodies most concerned with our registration are the Senate Business and Professions Committee (B & P) and the Assembly Government Efficiency and Consumer Protection Committee (CONPROT). These legislative policy making committees held hearing at the end of October and the first part of December but Geologists and the registration of Geologists were not on their agendas. Mr. Keese feels he has convinced legislators and staff members on these committees of the absolute need for geologists licensure. However, there may be efforts to merge the Board of Registration for Geologists and Geophysicists (Registration Board) with another board for greater efficiency. However, the Department of Consumer Affairs centralizes activities such as personnel, fiscal and legal and therefore there is no benefit which would arise out of merger with another board.

A meeting was held in Sacramento on December 4, 1989 with Bill Keese and the Legislation Chairman of the Sacramento and San Francisco Sections. The areas of interest to the association were discussed and we need input from the members. What are your priorities? The four areas of interest discussed at the meeting included: 1) Persons practicing in the environmental geology field who are not licensed or not experienced; 2) Apparent pressures to eliminate the need for Certified Engineering Geologists in codes and building departments by allowing geotechnical engineers to perform our work; 3) The lack of enforcement action by the Registration Board and problems with funding and; 4) Professional Liability. With respect to enforcement, there may be a need to modify present procedures to have different level of disciplinary measures, short of loss of licensing. Areas of liability include both obtaining insurance and the Certificate of Merit which was discussed early this year. Mr. Keese feels that the AEG needs to move to a political presence. This can be accomplished with Mr. Keese’s help and making contacts with local legislators. Do you have a friend or contact in the legislature?

Continued on page 4
The following agreement on

"Areas of Expertise" was adopted

by the Board of Registration for

Civil Engineers and Geologists

(CBIG) of the State of California, as

of October 6, 1990. It will be voted upon by

the Board of Registration for

Geologists and Geophysicists (BGG) at their

next regular Board meeting, scheduled

for January 11, 1991. This joint committee
between ASC and the Professional

Practices Committee of the BCGG will be

sent to the State Board of Registration

for Geologists and Geophysicists.

Your comments will be

forwarded to the BCGG for

review. The purpose of this

document is to provide the "Areas of

Expertise" for professional recognition

and certification of geologists and

geophysicists in the State of California.

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### Construction Observation
- Grouting
- Tunnel construction
- Conduits
- Structural foundation conditions
- Earth and earth/rock embankments
- Pavements

### Expansive Materials
- Expansive bedrock
  - Visual identification
  - Geochemical effects
  - Lab testing
  - Evaluation of expansion potential under project loadings
  - Preparation of parameters for limiting
  - Development of mitigating solutions

### Embankment Fill
- Visual Classification
- Qualitative evaluation of borrow material
- Design and construction quality
- Specifications
- Evaluation of potential deformations
- Evaluation of stability
- Seepage control measure
- Quantitative evaluation of removal of unsuitable material

### Instrumentation
- Vadose zone monitoring
- Water level recorders
- Slope inclinometers
- Rock stress and deformation devices
- Piezometers and observation wells
- Settlement movements
- Seismometers and accelerometers
- Water quality monitoring
- Tiltmeters
- Meteorology stations
- Stream gauges
- Pore water pressure monitoring
- Soil pressure devices
- Vibration monitoring and analysis
- File load testing
- Tensioning tie-backs

### Regulatory Requirements
- Provide engineering geology input as required
- Site selections
- Planning investigations
- Conducting samples for testing
- Interpreting data
- Describing and explaining site conditions
- Stability of natural slopes
- Construction observation
- Input to Urban Planning
- Input to environmental studies

### Joint Efforts
- Site selections
- Planning investigations
- Conducting samples for testing
- Interpreting data
- Describing and explaining site conditions
- Stability of natural slopes
- Construction observation
- Input to Urban Planning
- Input to environmental studies

### Hazardous Waste Reports
- Water wells
- Geotechnical borings
- Monitoring wells
- Toxic pits
- Resources Conservation and Recovery Act (RCRA)
- Toxic fluid monitoring
- Underground tanks
- Solid waste disposal sites
- Waste discharge to land
- Broad studies encompassing planning, coordination of disciplines including professional engineers, analysis and findings, preparation of conclusions and recommendations

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### Positions Available
Advertisements for Student & Part-Time Positions Available are Welcome. There is no charge for advertisement.

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### Career Opportunity For Hydrogeologists, Geologists & Environmental Engineers
Openings are available for entry level (1-4 yrs experience) Hydrogeologists, Geologists and for senior level Environmental Engineers. Openings are available in the City of Industry office and the expanded Newport Beach office. In addition, positions for experienced ground water and soils remediation specialists are available in offices throughout the United States. Salary is negotiable and is commensurate with experience.

**CONTACT:** (909) 965-4048
or send resume to: Geraghty & Miller, Inc.
Attention: N. Thomas Sheahan
17800 Castleton St. #175
City of Industry, CA 91748

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### Career Opportunity For Geotechnical Engineer
Openings are available for Geotechnical Engineer: Salary - $3,977 - $4,941 and $4,323 - $5,371/mo. Duties are to direct or assist in direction of Geotechnical Engineering Unit; directs the preparation of, and in some cases, reviews comprehensive and complex geotechnical reports, and may coordinate the preparation and review of geotechnical and geological reports with Engineering Geologists. Requirements are authority to use the title Geotechnical Engineer issued by the California Board of Registration. Candidates to file for the April 1990 examination.

**CONTACT:** (213) 495-2442
or send resume to:
City of Los Angeles Dept. of Building & Safety
Personnel Dept. Room 100
City Hall South
111 E. First St.
Los Angeles, CA 90012
or Van Nuys Branch City Hall
14410 Sylvan Street

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### Career Opportunities For Engineering Geologists
Several positions are available in the LA County DPW.
- **Engineering Geology Assistant:** Salary - $2,611 - $3,233/mo. Requires BS/BA in geology or engineering geology. Senior Engineering Geology Assistant: Salary - $2,754 - $3,411/mo. Requires BS/BA in geology or engineering geology and one year related experience.
- **Principal Engineering Geology Assistant:** Salary - $3,065 - $3,797/mo. Requires BS/BA in geology or engineering geology and three years related experience in problems in design, construction and O&M of structures. Engineering Geologist: Salary - $2,611 - $4,260/mo. Requires California Certification as an Engineering Geologist

**CONTACT:** (310) 458-2341 or (800) LACoDPW
or send resume to:
Los Angeles County Dept. of Public Works
Recruitment & Selection Sect.
900 South Fremont Avenue
Alhambra, CA 91803

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Continued on page 6
Seminars/Meetings/Field Trips

January 1990

7-12 "IBM PC Applications in Ground Water Pollution and Hydrology: A Hands-On Short Course" Dublin, OH. Assoc. of Ground Water Scientists and Engineers (NWQA). Contact: NWQA (614)761-1711/P.O. Box 182039/Dept. 4017/ Columbus, Ohio 43218.
29-2/3 "2nd Annual Fundamentals of Shallow Foundation Design" Orlando, FL. Univ. of Missouri at Rolla Continuing Education (UMRCE). Contact: UMRCE (800)752-5057 Continuing Education, 119 Mechanical Engineering Annex, UMR, Rolla 65401-0249

February 1990

1-3 "International Symposium on Borehole Geophysics for Petroleum, Hydrogeology, Mining, and Geologic Engineering Applications" Tucson, AZ. Contact: Dept. of Mining & Geological Engineering, University of Arizona, Tucson, AZ 85721.
4-9 "Operation Precipitation Estimation & Prediction (In conjunction with 70th Annual AMS Meeting)" Anaheim, CA. Contact: Dr. Constantine P. Georgakakos, Inst. of Hydralic Research, The University of Iowa, Iowa City, IA 52242 (319) 335-5522.
19-23 "Introduction to Groundwater Monitoring" Indianapolis, IN. International Ground Water Modeling Center (IGWMC). Contact: IGWMC (317)283-9458 Holcomb Research Institute, Butler University, 4600 Sunset Ave., Indianapolis, IN 46208
23-27th Annual San Diego State Univ. Geology Alumni Association Field Trip in Painted Canyon - Mecca Hills" North of Santa Monica. Contact: (619)586-8870 William J. Elliott, Field Trip Chairman 1989-90, P.O. Box 541, Solana Beach, CA 92075

March 1990

12-15 "3rd Annual Symposium on Application of Geophysics to Geotechnology and Environmental Problems (SAGEEP '90)." Colorado School of Mines, Golden. Contact: SAGEEP '90, c/o Colorado ARC Enterprises, 133 S. Van Gordon, Suite 200, Lakewood, CO 80228 (303)981-1648
19-23 "3rd Seismic Design and Analysis of Small and Medium Earth and Rockfill Dams" St. Louis, MO. Univ. of Missouri at Rolla Continuing Education (UMRCE). Contact: UMRCE (800)752-5057 Continuing Education, 119 Mechanical Engineering Annex, UMR, Rolla 65401-0249
Note "Day In The Field With Tom Dibblee" has been rescheduled for "some time in the Spring '90" Contact: (213) 598-0595 U.S. Geologic Services - Arthur R. (Dick) Brown

April 1990

2-6 "12th Annual Groundwater Analysis and the Design of Dewatering Systems" Orlando, FL. Univ. of Missouri at Rolla Continuing Education (UMRCE). Contact: UMRCE (800)752-5057 Continuing Education, 119 Mechanical Engineering Annex, UMR, Rolla 65401-0249
2-6 "4th Annual Short Course on Soil Dynamics and Foundation Engineering" St. Louis, MO. Univ. of Missouri at Rolla Continuing Education (UMRCE). Contact: UMRCE (800)752-5057 Continuing Education, 119 Mechanical Engineering Annex, UMR, Rolla 65401-0249
8-12 "High Level Radioactive Waste Management" Contact: ASCE.
16-20 "14th Embankment Dams-Soil Aspects" Orlando, FL. Univ. of Missouri at Rolla Continuing Education (UMRCE). Contact: UMRCE (800)752-5057 Continuing Education, 119 Mechanical Engineering Annex, UMR, Rolla 65401-0249
22 "EARTH DAY - 20 YEARS LATER", at locations throughout the U.S. and around the world. Theme: What has happened over the last 20 years and what direction are we going to preserve and improve our living space.
30-5/4 "12th Annual Fundamentals of Grouting" Denver, CO. Univ. of Missouri at Rolla Continuing Education (UMRCE). Contact: UMRCE (800)752-5057 Continuing Education, 119 Mechanical Engineering Annex, UMR, Rolla 65401-0249

May 1990

14-18 "Hands-on 5-day Laboratory May 19-24" Rolla, MO. Univ. of Missouri at Rolla Continuing Education (UMRCE). Contact: UMRCE (800)752-5057 Continuing Education, 119 Mechanical Engineering Annex, UMR, Rolla 65401-0249

June 1990


August 1990

12-15 "CONSERV 90: The National Conference & Expo. Focusing on Water Supply Solutions for the 1990s." Phoenix, AZ Contact: Conserve 90, 6275 Riverside Dr., Dublin, OH 43017 (614)761-1771
It's Time to Renew Your Annual Fees for the AEG Southern California Section. Your annual fees to AEG International do not include the Section fees. The $20.00 fee covers the operation of the section through publishing & mailing the monthly newsletter, paying for expenses of program speakers, meals for students at meetings, and the expense of our lobbyist in Sacramento.

You will not receive an invoice for renewal other than the notice located here. This notice will be printed here for the January and February issues. You will notice on your mailing label, to the right of your name, the month and year when your fees will be due. Past this date you will no longer receive copies of the section newsletter. You can ignore this notice if you made the effort of renewing. Members are, however, encouraged to participate at any time of the year.

To renew, send a check in the amount of $20.00 made out to "AEG" or "Association of Engineering Geologists" to the Section Secretary/Newsletter Editor at the address below. Please note any change of address on the mailing label below or on the form to the right.

Name_________________Phone_________________
School or Company_________________Fax_________________
Address_________________
City_________________State______Zip____________

Kelly E. Rowe
AEG Secretary/Newsletter Editor
c/o Geraghty & Miller, Inc.
17800 Castleton Street, Suite 175
City of Industry, CA 91748