ASSOCIATION OF ENGINEERING GEOLOGISTS

Southern California Section

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

NEWSLETTER - FEBRUARY 1998

News From Sacramento

CALIFORNIA COUNCIL OF GEOSCIENCE ORGANIZATIONS

First Annual Meeting

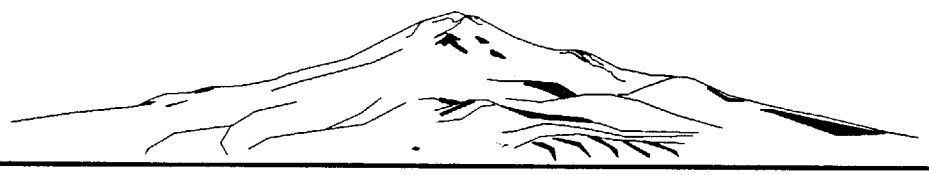
The first annual meeting of the California Council of Geoscience Organizations, or CCGO, will feature Dr. Eldridge Moores, a well-known structural geologist. Former president of the Geological Society of America, Dr. Moores is featured in several of author John McPhee's popular books, including "Assembling California." Dr. Moores' technical presentation will be based on California's diverse geology and its relevance to Californians and their future.

Dr. Moores teaches at the University of California at Davis and has made many geological field trips in the company of author McPhee. The two intrepid travelers, each expert in his own field, have journeyed to Cyprus, northern Greece, Arizona, Nevada, Wyoming, Utah, and the east coast, interpreting each other to the world in a graceful, entertaining exchange. John McPhee's articles have long been featured in New Yorker magazine.

CCGO is an umbrella group of professional California geoscientists whose purpose is to advocate the use of sound geologic knowledge and practice by proposing, reviewing, and monitoring statutes, regulations, and public policies. The first meeting will be held at the Old Spaghetti Factory in Jack London Square in Oakland, California on Wednesday, March 11, 1998, at 6 PM. The cost is $25 per person. Early reservations are recommended. RSVP to John Darachewski by March 6, 1998 at (510) 227-1105, ext. 407.

CCGO Accepting Applications for Executive Director

CCGO is seeking an Executive Director to manage the group's routine affairs and perform administrative duties. During the CCGO organizational period, the Executive Director must be willing to serve on a volunteer basis. Ultimately the Executive Director post will be a paid, half-time position. The position will remain open until filled. Applicants should submit a letter of interest and a current resume to: James M. Parsons via e-mail: jparsons@pacbell.net or via snail mail at P.O. Box 220968, Sacramento, California 95822-0968. Mr. Parson can be reached at (916) 421-5276.



REVIEW OF DON MICHAELS PRESENTATION

JANUARY 1998
SOUTHERN CALIFORNIA SECTION MEETING

Need for Hydrogeologic Expertise At The Local Agency Level
By Linda Tandy

Don Michael was the AEG's Southern California Section's Guest Speaker at the January 1998 Dinner Meeting held at Steven's Steak House in the City of Commerce, California. Based on recent hydrogeology projects in Los Angeles and Ventura County, Mr. Michael asserted that the local regulatory agency's personnel made decisions that suggest a great need for hydrogeologic expertise at the local agency level.

Mr. Michael explained that the California's water rights, including the percolating groundwater rights are in direct conflict with the Ventura County's requirement to show a "permanent" ground water supply. Mr. Michael said that although one can not predict storage in the Conejo Volcanics, Ventura County has designed a well test to evaluate the existence of a 60 year groundwater supply. In another case, Ventura County demanded an extensive ground-water monitoring investigation based on what Mr. Michael says was an unwarranted assumption that septic-system effluent from a proposed subdivision would pollute ground water. Then, after they demanded the extensive groundwater monitoring program, the County of Ventura reversed their decision and said that the groundwater monitoring program was not required!

In another case study, Mr. Michael explained that Lunita Pacific proposes to develop 28 condominiums in the Trancas Town Development along the northern Los Angeles County coastline in the newly formed City of Malibu. Malibu does not have a city sewer system therefore Lunita Pacific proposed to outlet the effluent into the Broad Beach Sands, downgradient of the proposed development. Several septic systems already exist in the Broad Beach Sands as part of the infrastructure of several million dollar homes along the beach in this area.

Mr. Michael said that Malibu hired several consultants to evaluate the groundwater conditions in the proposed development area. Several different methods were used to evaluate the hydraulic conductivity (K) and storativity (S) values of the groundwater table being evaluated. The last consultant used the Image Well Theory to evaluate the ground-water conditions at the proposed development and concluded that based on the estimated volume of effluent from the proposed development that the groundwater levels in the Broad Beach Sands would rise approximately 2 inches.

Mr. Michael, representing residents along the beach, did not agree with this interpretation. Eventually, everyone agreed to disagree and let a third party review the problem. However, Lunita Pacific withdrew from the third-party review and their lawyers took the matter to court. The judge ruled in favor of Lunita Pacific.

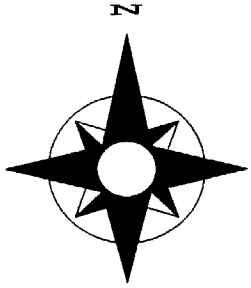
Mr. Michael predicts that about 1 1/2 to 2 years after development of the condominiums the rise in groundwater in the area will be approximately 1 to 7.5 feet. Mr. Michael ended his presentation by reiterating how these examples demonstrate the need for experienced hydrogeologic professionals at the local regulatory agencies.

Several interesting comments from the audience followed the presentation. Lunita Pacific's consultant was present and indicated that they did a lot of work to evaluate the K value for the site including drilling 40 soil borings into the marine terrace deposits and performing permeability tests.

A Thank You to Mr. Michael for his very informative talk. It will be interesting to study the actual site conditions as development at Trancas Town evolves.

February Dinner Meeting **TUESDAY FEBRUARY 10, 1998**

- 5:30 Social Hour & One-half
- 7:00 Dinner
- 7:30 Announcements
- 7:45 Program



Stevens Steak House 5332 Stevens Place, City of Commerce, California

Reservations Call Nichole Harris at Montgomery Watson (626) 568-6041

Cost ***$25.00 per person*** Please make reservations by Monday February 9, 1998

Students $15.00 per person Reservations which are not canceled will be billed

SPEAKER Dave Ebersold

TOPIC Mexico City - A Case Study of the Relationship Between Engineering Geology, Water Supply, Water Quality, Soil Mechanics, Public Health and Economics

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Mr. Ebersold is a Principal Hydrogeologist and Manager of Montgomery Watson's Water Resources Practice in Pasadena. He is a Registered Geologist and Certified Engineering Geologist in California and has over 12 years of experience in water resources, environmental and geotechnical aspects of geology. Some of Mr. Ebersold's most notable projects include: the development of a groundwater transport model of the Valley of Mexico; the design and construction of thirteen groundwater production wells for the Chino Basin Desalination Program; a detailed hydrogeologic investigation and modeling effort to evaluate the impact of direct reclaimed water injection in the Alamitos Gap seawater intrusion barrier; and the design and construction of a 1,500-foot-deep, multi-level observation and monitoring well to detect saline migration into water supply aquifers near the Salton Sea. Mr. Ebersold currently serves as Chairman of the Southern California Section of the Association of Engineering Geologists.

In the Mexico City Basin groundwater provides 75 percent of the water supply for over 22 million people. To meet this need, groundwater pumping averages 33 cubic meters per second; however, basin recharge averages about 15 cubic meters per second. With excessive groundwater pumping and the basin in 100 percent overdraft, subsidence rates on the order of 1 foot per year are a major problem. Potential impacts to water quality include downward migration of surface contaminants in recharge areas, bacterial and viral contamination from sewage effluent, and introduction of brackish waters into potable aquifers. A water quality model was developed to evaluate the effects of this excessive dewatering. Mr. Ebersold will use the results of the study as the basis for a discussion of the interrelationship between classical soil mechanics and engineering geologic issues to water supply, public health, and economics. Lastly, Mr. Ebersold will correlate the subsurface conditions encountered in Mexico City to several areas of southern California which are experiencing rapid urbanization.

Association of Engineering Geologists
Southern California Section

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