ASSOCIATION OF ENVIRONMENTAL AND ENGINEERING GEOLOGISTS
San Francisco Section

Announcing the April 2009 San Francisco Section Meeting

GEOLOGIC CONSIDERATIONS FOR DAMS

William A. Fraser, Chief, Geology Branch
California Division of Safety of Dams

MEETING DETAILS

Restaurant:
Sinbad's
Pier 2 Embarcadero Street
San Francisco, CA

Date and Time:
Tuesday, April 14th, 2009
6:00 pm—Social Hour and Sign-in
7:00 pm—Dinner
8:00 pm—Presentation

Cost: $35 AEG members, $40 non-members, $15 Students

Meal Choice: Chicken, Beef, Fish, and Vegetarian – you do not need to send in your meal choice.

Reservations*: To RSVP, fax or e-mail Sachiko Tanikawa by **12 PM, Friday April 10th.** (fax # 866-400-4068, email: treasurer@aegsf.org) with the following information:

(1) Name (2) Phone number/e-mail

Driving Directions: From the Bay Bridge, take the Fremont Street Exit and the Folsom Street Ramp. Go left (east) on Folsom Street, then left (north) onto the Embarcadero (Herb Caen Way). The driveway for Sinbad's is on the right, south of the historic Ferry Building. Please watch out for the pedestrians and cyclists when turning into the driveway. Thank you.

BART Directions: Exit the Embarcadero Station; walk up Market Street toward the Ferry Building (less than ½ a mile toward the Bay and to the east). Cross Embarcadero and Sinbad's is located next to the Alameda ferry pier on the south side the historic Ferry Building.

Parking: $3 valet parking is available or you can park at a meter somewhere on a side street off the Embarcadero.

*To assist us with reservations and to help the restaurant with the set-up, please RSVP in advance. Walk-ins are welcome, but not guaranteed. No shows and late cancellations will be charged.

See next page for abstracts and speaker biographies.

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ABSTRACT

Dam design is an iterative process involving both geology and civil engineering and best performed through a phased investigation process. Initial studies need to be concerned with geology, as many fatal flaws are geologic in nature. More routinely, the site conditions and the available construction materials dictate the type of dam which can practically be constructed at a site. Only after dam type is selected can a foundation that will perform well under static, hydraulic, and seismic loading be recognized in the subsurface. Borrow and quarry sources need to be geologically characterized, to provide better consistency between the available site materials, and the sampling, laboratory testing and engineering analyses that confirm their adequacy, and the specifications that control their use. The role of the engineering geologist should move beyond field data acquisition, and include making design recommendations, participating in foundation modeling, and anticipation of possible modes of failure.

SPEAKER BIOGRAPHY

William A. Fraser has been with the California Division of Safety of Dams, in Sacramento, California since 1988. For the past 15 years he has been the Chief of the Division's Geology Branch, supervising a staff of five engineering geologists, involved in seismic hazard assessment and foundation characterization for new and existing dams. Prior to working with the Division of Safety of Dams, Mr. Fraser worked 7 years as a staff geologist with the Department of Water Resources, Division of Engineering, performing design and maintenance investigations on the State Water Project dams. Mr. Fraser is a Professional Geologist and a Certified Engineering Geologist in California.

Mr. Fraser is serving as the manager of AEG's Dams Working Group and is currently planning the Symposia and Technical Program for AEG's 2009 South Lake Tahoe Annual Meeting.