



ASSOCIATION OF ENVIRONMENTAL & ENGINEERING GEOLOGISTS SACRAMENTO SECTION

March Meeting Announcement

Date: **Wednesday**, March 11, 2009

Location: California Fat's Steakhouse & Asian Grill, 1015 Front Street, Sacramento

RSVP by 4:00pm Tuesday, 3/10 (Lbreckenridge@wallace-kuhl.com)

Joint Task Force on Areas of Practice (JTFAP) Draft Document Discussion Group

4:15-5:30 (preceding regular meeting)

Preceding the regular Sacramento Section meeting, we will be hosting a (free) discussion group to give AEG Sacramento Section members and others the opportunity to discuss the JTFAP draft document that was recently made available to the AEG membership. We strongly encourage all AEG members to **read the document**, discuss it with your colleagues, and provide comment, as it has potentially significant implications to YOUR profession.

To access the document, log on to www.aegweb.org with your Username and Password. If you have forgotten these, you can contact Cathy Wilson at 303-757-2926 or cwilson@aegweb.org for the information. Once you are logged on, please click on the "JTFAP Draft Document" link in the middle of the Welcome Page.

Followed by AEG Sacramento Section's March meeting...

Practical Applications of Airborne LiDAR Data for Environmental and Engineering Geology Projects

Mark Molinari, AEG President

Principal Engineering Geologist
URS, Seattle, Washington

Over the past decade there has been a significant increase in the use of airborne LiDAR (Light Detection and Ranging) data to create detailed topographic base maps and high-resolution (0.2 - 1 m vertical accuracy) digital elevation models (DEMs) for a variety of regional and site-specific projects. If the scope of data acquisition is properly defined and implemented, LiDAR is effective in all types of terrain and vegetation; however it is particularly useful in densely vegetated areas where conventional photogrammetry-based topographic maps and resulting DEMs have a relatively low accuracy. In addition, it is very cost-effective in steep or remote terrain that cannot be easily surveyed by conventional methods. This talk will present a variety of examples where LiDAR was successfully used for environmental and engineering geology projects and the type of derivative products that can be generated using GIS or other computer applications. Primary lessons learned regarding acquisition and QA/QC review of LiDAR data, management of LiDAR vendors, managing large LiDAR data sets and automation of LiDAR data processing will also be summarized.

Example projects include:

- Use of LiDAR-derived GIS products for 28 separate proposed timber sale areas covering approximately 1,400 square miles in Tongass National Forest in Southeast Alaska to map and evaluate geologic hazards and watershed hydrology, karst, and potential hydrologic effects of the surging Hubbard Glacier on Russell Fjord, and road reconstruction
- Active fault and landslide mapping
- Unexploded ordinance range mapping
- Structural geologic mapping of an inaccessible rock avalanche
- Mine tailing and landslide debris volume estimates
- Levee evaluation
- Detailed topography for surface water- groundwater interaction for a contaminant plume
- Floodplain mapping and geomorphic analysis
- Wetlands hydrology

Mark Molinari Biographical Sketch:

Mark Molinari is a Principal Engineering Geologist at URS Corporation in Seattle, Washington with 25 years consulting experience assessing geologic and seismic hazards, and performing and managing environmental assessment and remediation projects. He has worked throughout the western U.S., including Alaska, and internationally. He has performed geologic and/or seismic hazard assessments for environmental impact studies, permit applications, and siting and design of onshore and offshore petroleum facilities, power plants, LNG terminals, dams, linear utility corridors, public and commercial facilities, and municipal, hazardous and low-level radioactive waste facilities. His environmental project experience includes due diligence environmental site assessments, hydrogeologic assessments, Remedial Investigation/Feasibility Study (RI/FS) projects, and remedial actions for a wide range of oil & gas, aerospace, and commercial and industrial clients. In addition, he has a RI/FS project for a four square block Brownsfield site for the University of Washington. Mr. Molinari is a Licensed Geologist, Hydrogeologist and Engineering Geologist in Washington; a California Professional Geologist and Certified Engineering Geologist, and a Nebraska Professional Geologist. He is the 2008-09 AEG President, and served two years on the AEG board as Washington Section chair and one year on the Governance Committee in addition to his three previous years on the Executive Council.

AEG Foundation Donation Drive:

Concurrent with hosting AEG President Molinari, we will hold our annual Sacramento Section donation drive for the AEG Foundation (AEGF). We understand that these are lean times for many. Fortunately, this drive commonly brings opportunities for matching contributions to extend your donation even further, so as an individual or as a business, bring your checkbook and do what you can to show your support for the AEG Foundation. Further information about the AEG Foundation is available at their website: <http://www.aegfoundation.org/index2.php>

Meeting Details:

Place: California Fat's Steakhouse & Asian Grille
(Located in historic Old Sacramento near the corner of Front Street & J Street)

Time: 4:15-5:30 JTFAP Draft Document Discussion Group (There is no charge to attend the JTFAP Discussion)
5:30-6:30 Meeting Sign-in & Social Hour
6:30-7:30 Dinner & Announcements
7:30-8:30 Speaker Talk & Slide Show
8:30-8:45 Questions & Answers

On The Menu:

Chicken Pot Stickers & Crispy Vegetable Spring Rolls
Orange Chicken Honey Walnut Prawns
Vegetarian Stir Fry Chicken Chow Mein
Garlic Green Beans Steamed White Rice

Dinner is served family style and includes dessert and coffee.

Cost: \$35 AEG member (w/RSVP); \$37 nonmember and walk-ins
First 5 Students (w/RSVP) Eat For Free!
Additional Student RSVPs: \$10.00 Student Walk-ins: \$15.00
Alcoholic beverages are available to those 21 and over on a cash basis.

RSVP to: **Lisa Breckenridge, Wallace-Kuhl & Associates**
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