



AEG SACRAMENTO

Monthly Bulletin and Meeting Announcement

Summer on the horizon...

Snow in the high country is melting fast as we rapidly transition from spring to summer here in the Sacramento region. As the temperatures rise and the pace of business gets even busier, be sure that you make time to come visit your friends and colleagues at the next AEG meeting! April was an exceptionally busy month for AEG as we saw great success with the 2007 Rock Slope Stability Analysis & Design short course and a well attended monthly meeting held at California Fat's in Old Sacramento. The feedback on the food and facilities at California Fat's was great, so we will be returning there for this month's meeting with special guest speaker Dr. Edward Kavazanjian speaking on post-closure development of waste landfills. So despite your busy schedules, be sure to come join us for great food, good company and an informative talk at the May meeting!

Section Meeting Date: May 29, 2007

Meeting Location: **California Fat's Asian Grill & Steakhouse**
 1015 Front Street (at J Street)
 Sacramento, California
 (Located in historic Old Sacramento)
RSVP's are enthusiastically encouraged!

Meeting Schedule:

- 5:30 - 6:30 Sign-In & Social Hour
- 6:30 - 7:30 Dinner & Announcements
- 7:30 - 8:30 Speaker Talk & Slide Show
- 8:30 - 8:45 Questions & Answers

Post-Closure Development of Waste Landfills

Edward Kavazanjian, Jr., Ph.D., P.E.

Associate Professor of Civil and Environmental Engineering
Arizona State University

Abstract:

Increasing demand for developable space in urban areas has created increased interest in construction on top of closed landfills. Landfill redevelopment projects can include “hard” uses such as commercial, industrial, or infrastructure facilities and “soft” uses such as athletic fields, golf courses, and amphitheatres. Engineering challenges associated with landfill redevelopment include foundation design, infiltration control, and landfill gas migration control. The large total and differential settlement often associated with landfills is an integral part of these challenges. Due to the large settlement potential, landfill redevelopment using shallow foundations is generally restricted to low-rise structures of one or two stories with mat foundations. Construction of taller structures using pile foundations is generally restricted to landfills without an engineered bottom liner system. Buildings with both deep and shallow foundations as well as recreational users must be protected against vertical landfill gas migration. Furthermore, infiltration into the landfill and lateral gas migration from the landfill must be controlled. Despite the significant challenges associated with post-closure development on top of landfills, both hard and soft uses of old landfills are becoming increasingly common. Several case histories are presented to illustrate engineering solutions to the challenges.



Edward Kavazanjian, Ph.D., P.E., Associate Professor Arizona State University

Ed Kavazanjian has Bachelor and Master of Science degrees in Civil Engineering from M.I.T. and a Ph.D. in Geotechnical Engineering from the University of California at Berkeley. He joined the faculty at Arizona State University in August 2004 after 20 years as a practicing geotechnical engineer. Ed is particularly well-known for his work on landfills and waste containment systems. He has delivered several keynote addresses and state of the art papers on waste containment systems and landfill engineering at international conferences, has served as principal or co-principal investigator on National Science Foundation and California Integrated Waste Management Board research projects on landfills, and is co-author of the U.S. Environmental Protection Agency guidance documents for Seismic Design for Municipal Solid Waste Landfill Facilities. He currently serves on the Board of Governors of the American Society of Civil Engineers (ASCE) Geo-Institute. Ed is a registered Professional Engineer in Arizona, California, and Washington.

Chairman's Message

by
Eric Chase

Greetings Sacramento Section members. Last month I attended AEG's mid-year Board of directors meeting in Indianapolis, hosted by our President Dr. Terry West of Purdue University. In addition to voting on a number of issues in 12 hours of meetings, we were treated to a tour of an active urban landfill site and an active limestone mine beneath it! The underground tour was greatly entertaining with rooms and pillars extending for what seemed like miles. Issues of interest in the meeting included our Strategic Plan, with advocacy for our profession at the top of the list. Our own past chair Bruce Hilton now chairs AEG's new Advocacy Committee, and they are busy designing and implementing a number of strategies to increase public awareness of and political participation for our profession across the country and internationally. Raising the awareness of policy makers about the importance of what we environmental and engineering geologists do for society is becoming perhaps our most important mission. We continue of course to serve our membership with support, in the form of section meetings with speakers, short courses (see below), field trips, outreach to students and new members, and networking with other professional societies.

While I was attending the meetings in Indianapolis, section member Pat Jenks, aided by Drew Kennedy and many other volunteers, chaired our two day short course on Rock Slope Stability Analysis and Design, featuring instructors Dr. Skip Watts of Radford University, Dr. John Kemeny from the University of Arizona, Brendan Fisher, a senior engineering geologist with Kleinfelder, and Dr. John Curran, Founder and Director of Rocscience, Inc. and Professor of Engineering at the University of Toronto. The course was sold out with a waiting list, and the reviews were positive across the board. Great work Pat, Drew, volunteers, and a special thanks to Wallace-Kuhl and Associates for their continuing corporate support of our efforts.

Thanks to the fine efforts of our officers and committee chairs we have filled our dance card of speakers for the remaining meetings in 2007 (see our website at aegsacto.org), with the exception of July. Your section officers suggested that in keeping with tradition we hold no meeting in July. I have three potential speakers for July, in case they change their minds! Finally, I have been in touch with Dr. Dave Osleger at U.C. Davis and we are formulating a panel for fall on practicing in the profession of geology for their students to attend on campus. I will be recruiting panelists for this toward the end of summer. See you at our section meeting on the 29th!

Eric Chase
Sacramento Section Chair

May 2007 AEG Meeting Facsimile Transmittal Sheet

(or e-mail to the address below)

To: Lisa Breckenridge (Wallace-Kuhl & Associates, Inc.)

email: LBreckenridge@wallace-kuhl.com

Phone: (916) 372-1434

Fax: (916) 290-5429

From: _____

Or You Can Sign Up Online at: www.aegsacto.org

Subject: May 2007 AEG Sacramento Section Meeting

Date: May 29th, 2007

Place: **California Fat's Asian Grill & Steakhouse**

(Located in historic Old Sacramento near the corner of Front St. & J St.,
parking is available in the lot at Front St. & Capitol Mall)

RSVP's are strongly recommended for this venue!

Time: 5:30 - 6:30 PM - Sign In and Social Hour
6:30 - 7:30 PM - Dinner & Announcements
7:30 - 8:30 PM - Speaker Talk and Slide Show
8:30 - 8:45 PM - Questions and 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: \$28 member (w/ RSVP) \$30 nonmember and walk-ins

Notes: First 5 Students (w/RSVP) Eat For Free!
Additional Student RSVPs: \$10.00 Student Walk-ins: \$15.00
Alcoholic beverages are available for those 21 and over on a cash basis.



AEG Sacramento 2007

Event Calendar

January 30th	Keith Millard, Youngdahl Consulting Group Landslide Repair on a Gold Rush Era Roadway
February 27th	Dr. Sandy Figuers Construction vibrations and their effect on adjacent improvements
March 27th	Dick Hilton, Sierra College Dinosaurs and Other Mesozoic Reptiles in California
April 20-21st	Rock Slope Stability Workshop
April 24th	Nate Manley, Sanders & Associates Geotechnical Engineering, Inc. The Influence of Geologic Structures on Slope Stability and Geomorphic Development in the Shoo Fly Complex
May 29th	Dr. Edward Kavazanjian, Arizona State University Post-Closure Development of Waste Landfills
June 26th	Yogesh Prashar, M2 Consultants Numerical Modeling of Fault Rupture and Lateral Spreading related PGD for a Natural Gas Pipeline
July	No Meeting
August 28th	Ken Glotzbach (City of Roseville) and Chris Petersen (MWH) Roseville Aquifer Storage and Recovery Project
September 24-29	AEG's 50th Anniversary and Annual National Meeting, Sheraton Universal Studios, Los Angeles, California
October 30th	AEG's Annual Student Night at CSUS James G. Moore, USGS Clarence King - Exploration and Discovery in the American West
November	No Meeting
December	AEG/GRA Annual Joint Holiday Meeting TBA