

SAN DIEGO ASSOCIATION OF GEOLOGISTS

www.sandiegogeologists.org

SDAG Presents a Joint Meeting with The San Diego Chapter of EERI

WEDNESDAY, March 21, 2012

"Engineering Geology Challenges on the Cascadia Margin, Pacific Northwest, USA"

Presented by

Dr. Scott Burns, RG, CEG

Portland State University

Where: Tom Ham's Lighthouse

2150 Harbor Island Drive, San Diego

(619) 291-9110

When: 5:30 pm – Social Hour

6:30 pm – Dinner 7:15 pm – Program

Dinner: Buffet, choice of Tropical Local Seasonal Fish or Petite Top Sirloin

Cost: \$35 per person, \$5 discount for members, STUDENTS: \$15. Add \$5 if you did not

make a reservation.

Reservations: Make your reservation <u>online</u> at <u>www.sandiegogeologists.org</u> no later than

noon, Monday, March 19th.

RESERVATIONS CANNOT BE GUARANTEED AFTER MONDAY AT 12 NOON BUT THEY ARE ALWAYS PREFERRED OVER WALK-INS.



SDAG - 1 Original 3/15/2012

SPEAKER ABSTRACT

"Engineering Geology Challenges on the Cascadia Margin, Pacific Northwest, USA"

In the Pacific Northwest of the United States, the Juan de Fuca plate is being subducted under the North American Plate at the Cascadia Subduction Zone. The lecture will discuss the hazards of and the preparedness for ground shaking, liquefaction, landslides and tsunamis along the subduction zone. What are the differences of recurrence intervals for large earthquakes on the northern and southern margins? Much of the region was not thought to be an earthquake region so earthquake building standards are fairly recent. How does the chance of crustal, plate and subduction quakes affect building codes, emergency preparedness, siting of critical facilities, building of bridges, and transportation corridors in the region? What have we learned from recent subduction quakes around the world that can be applied to the Pacific Northwest? What can the region expect after a large quake?

SPEAKER BIO

Dr. Scott Burns, RG, CEG

Portland State UniversitDr. Scott Burns has been named the 2011-2012 Richard H. Jahns Distinguished Lecturer in Engineering Geology. Scott is a Professor of Geology at Portland State University (PSU) where he specializes in environmental and engineering geology, soils, geomorphology, Quaternary Geology and terroir. He has B.S. and M.S. degrees from Stanford University, plus a Ph.D. from the University of Colorado. Scott holds registrations in Oregon (RG and CEG) and a



license in Washington (LG). Scott also is a consultant and an expert witness for law cases. He just finished his 21st year of teaching there and his 41st year of teaching at the university level (previous positions in Switzerland, New Zealand, Washington, Colorado and Louisiana). An author or coauthor of two books, over 80 articles, and over 200 published abstracts, Scott has worked on research topics as diverse as landslide, debris flow, radon and earthquake hazard mapping, heavy metals and trace elements in soils, loess stratigraphy, slope stability, Missoula Floods, bio-geomorphology (pocket gophers, tree throw, and ants), alpine soil development, and terroir (relationship of geology, soils, climate and wine).

Dr. Burns was president of AEG (2002-2003) and vice president (North America) for IAEG (2006-2010). He has received the Public Service Award from GSA in 2011 and the Meritorius Service Award (2006) from the Engineering Geology Division (EGD) of Geological Society of America. He has been the Chair of the Engineering Geology Division and the Treasurer of the Quaternary Geology and Geomorphology Division (for 12 years) of GSA. Scott has been an Associate Dean, chair of departments and president of faculty senates at three different universities, and president of one of the largest and oldest Rotary clubs in the world. Scott has won many awards for outstanding teaching with the most significant being the Faculty Senate Chair Award at Louisiana Tech University in 1987, the Distinguished Faculty Award from the PSU Alumni Association in 2001, and the George Hoffmann Award from PSU in 2007. He actively helps local TV and radio stations and newspapers bring important geological news to the public.

The Jahns lectureship, established in 1988, is sponsored by the Association of Environmental and Engineering Geologists and the GSA Engineering Geology Division. Its purpose is to provide funding for distinguished engineering geologists to present lectures at colleges and universities in order to increase awareness of students about careers in engineering geology. The lectureship is

named in honor of Dr. Richard H. Jahns (1915-1983), an engineering geologist who had a diverse and distinguished career in academia, consulting and government.

2012 SDAG MEETING SCHEDULE - Mark your Calendars!

Meetings are usually on the 3rd Wednesday of the month but may change to accommodate speaker and meeting place schedules. Check here for updates!

April 18, 2012	Geology Student Presentations
May 16, 2012	Dr. Bethany O'Shea, University of San Diego: "Arsenic-mineral interaction in groundwater environments"
June 20, 2012	TBA

2012 EXECUTIVE COMMITTEE

PRESIDENT - Todd Wirths; Cogstone Resource Management, Inc. Ph: (858) 337-0098; todd@wirths.com

VICE PRESIDENT - Cari Gomes; cg7783@yahoo.com

TREASURER -Brian J. Olson; FSR Engineering; Ph: (858) 750-9243; bolson@fsrengineering.com

SECRETARY - Jennifer Bauer Morton; geologyjen@yahoo.com

PUBLICATIONS - Lowell Lindsay; Sunbelt Publications; Ph: (619) 258-4911, x111; fax:(619) 258-4916; llindsay@sunbeltpub.com

WEBMASTER - Carolyn Glockhoff; Caro-Lion Enterprises, Ph. (858) 549-3396; carolyn@caro-lion.com

PRESIDENT'S CORNER

For me, our meeting last month seems like six months ago. Speaking of, how did you like the El Cajon Brewing Company? Yes, a little crowded (but a great turnout)... Tell me your thoughts. This month, thanks to the effort of Diane Murbach, we have the pleasure of dining with Dr. Scott Burns of Portland State University, who is presenting his lecture, "Engineering Geology Challenges on the Cascadia Margin, Pacific Northwest, USA." This is a joint meeting with the local chapter of EERI.

What's that? Something about a "guidebook"? Oh yeah, that thing that I've been occupied with for the last 1.73 years.

IT'S HERE! IT'S DONE! It will be printed as you read this, and will be available for distribution to those who attended the field trip, and for purchasing by the public, at the meeting. "Picacho and the Cargo Muchachos: Gold, Guns, and Geology of Eastern Imperial County, California" could be considered a

departure from a traditional SDAG book. Much of it focuses on mining history, but not the usual anecdotal, story-telling mine history (ok, maybe a little), but scholarly, historical papers. Plus the geology works that we've come to expect. Thanks go to Carole Ziegler, Phil Farquharson, Monte and Diane Murbach, and Lowell Lindsay for helping me put it all together, we really worked hard on this thing. It's almost 240 pages. Lots of stuff, great, fun reading.

I will leave off with this cartoon. In it, the extinction of three dinosaur genera is conjectured with respect to their presumed social behavior. Interestingly, of the three, only Iguanodon lived in the Cretaceous.

Todd Wirths
SDAG President



ANNOUNCEMENTS

THE SDAG 2011 GUIDEBOOK IS HERE!

PICACIIO



AND THE CARGO MUCHACHOS

GOLD, GUNS, AND GEOLOGY OF EASTERN IMPERIAL COUNTY, CALIFORNIA

Diamond Sponsors:





San Diego Association of Geologists

The same of the sa

Editor: Todd A. Wirths

NATIONAL TSUNAMI PREPAREDNESS WEEK! MARCH 26-30, 2012

Visit the California Geological Survey's Tsunami Website for more information and educational materials: www.tsunami.ca.gov

The National Weather Service also has a TsunamiReady website with lots of great information: www.tsunamireadv.noaa.gov

Save the Date! September 8-9, 2012 SAN DIEGO ASSOCIATION OF GEOLOGISTS Field Trip - Waiting for Tsunami: Coastal Processes and Geologic Hazards of North San Diego County



In this trip, we will explore the southern California coastline from La Jolla north to San Clemente. We will tour sites of geologic interest including: tsunami features, active coastal erosion, landslides, a Miocene volcanic plug, estuaries, and efforts to restore brackish water areas.

World-renowned paleontologist Jack Horner, Curator of Paleontology at the Museum of the Rockies and Regents Professor at Montana State University will present a lecture on dinosaur behavior and growth at the San Diego Natural History Museum.

"Growing Up Dinosaur"

Thursday, March 29th, 2012

Reception at 6:00 p.m., Lecture at 7:30 p.m.

Tickets are \$20 per person and include refreshments at the reception

For Reservations, please call 619-255-0285

The San Diego Chapter of EERI is sponsoring a one-day course entitled "Analysis, Design, and **Testing of Pile Foundations**"

Instructor: Prof. Bengt Fellenius Friday, March 30, 2012 Date: 8:00 am - 5:00 pmProgram:

Grand Pacific Palisades Resort & Hotel Venue:

> 5805 Armada Dr., Carlsbad, CA 92008 http://www.grandpacificpalisades.com/

Content:

- 1) Settlement analysis and accelerating settlement with wick drains
- 2) Analysis of load transfer and capacity of piles
- 3) The static loading test
- 4) Design of pile foundations

Registration fees: Fee includes lunch, refreshments for morning and afternoon breaks, and notebook of SDAG - 6 Original 3/15/2012

lecture notes.

Members of EERI, ASCE Geotech (Geo-Institute San Diego), and DFI: \$ 225

Non-Members: \$ 300

Students: \$ 125

7 Professional Development Hours available.

Register online at https://www.eeri.org/registration/register.php

Sponsors: Hayward Baker Geotechnical Construction http://www.haywardbaker.com/

Instructor Bio: Dr. Bengt H. Fellenius, formerly Professor of Civil Engineering at the University of Ottawa, is an internationally recognized foundation engineering consultant and the author of more than 300 technical papers. His professional experience comes from a wide variety of assignments that encompass foundation design for industrial plants, water and sewage treatment facilities, bridges and highway projects, marine structures, and urban area development, as well as participation in special investigations, instrumented field tests, etc. Dr. Fellenius has given lectures and courses to several universities and international conferences throughout America, Europe, and South-East Asia. He currently lives in Sidney, BC, Canada.

Plan to share your research with a presentation or a poster 2012 Desert Symposium

Presentation Theme: Life in the Desert: Adaptations to Environmental Extremes

Field Trip Theme: Search for the Pliocene: Southern Exposures

Desert Studies Center, Field Trip April 21- 23, 2012 Zzyzx, California Additional information to follow. Please forward this information to other interested individuals and invite them to send their email

addresses to wpresch@fullerton.edu. California State University, Fullerton

Tough Mudder - Looking for a few hardy geologists (or engineers!) interested in competing as a team at this year's Tough Mudder event, at the Snow Valley Mountain ski resort near Big Bear on the weekend of July 7th/8th. If anyone's interested in 12 miles of pain and suffering followed by unlimited cold beer, then please e-mail Rupert Adams at rupert.hgi@sbcglobal.net. For more info, check out http://www.toughmudder.com

26th ANNUAL SDSU GEOLOGY ALUMNI FIELD TRIP April 28 & 29, 2012

The 26th Annual SDSU Geology Alumni Field Trip/Campout will be in the Barstow area this year. A hike up Owl Canyon from the campground on Saturday morning to see the local stratigraphy (about 9:30ish) and a drive/walk through Rainbow Basin geology in the afternoon will be the day's focus. Sunday will be an option to explore Calico Ghost Town, about 15 miles away and/or if you are into Archeology, the Calico Early Man Site is about 25 miles away. Or there is the possibility of doing a "Geocaching" exercise or some 4-W drive trails above Calico for those so inclined. We will be camping in the Owl Canyon BLM Campground with limited water, pit toilets and BBQ grills & fire rings in each site but no trailer hook-ups. There are also swing sets for the kids! There should be someone in the campground from Friday afternoon thru Monday morning depending on the weather forecast. Temperatures will probably be between 52 and 77 with a constant breeze according to the locals.... Campground fees are \$6.00 per site per night with at least 2 vehicles per site, and \$3.00 per site with the Golden Age Passport or Senior Pass so we will be able to get somewhat of a break on price by sharing sites among our Alumni friends. Rainbow Basin is a desert environment so bring sufficient water, food, clothing, equipment, first aid supplies, firewood and refreshments for your activities.

DIRECTIONS: to the Owl Canyon Campground: GPS Coordinates (35.021429 Lat. 117.021751 Long). From the Slauson Cut-Off take any freeway to the I-15 northbound thru the Cajon Pass to Barstow. From the intersection of Barstow Rd. and I-15 go northbound on I-15 about 5 miles to Ft. Irwin Rd. exit. At stop sign turn left (north) and go about 7 miles until you reach "Irwin Rd." on left. There will be a yellow sign indicating T-intersection to left. Turn left onto "Irwin Rd." and go about 4.2 miles to "Fossil Bed Rd." and make a right turn onto Fossil Bed Rd., a bumpy gravel road. Continue another 3 miles to turnoff to "Owl Canyon Campground" on right. Don't miss turn to Campground or you will accidentally be forced to drive thru Rainbow Basin which is a "One Way" road and you will have to make a big loop to return to campground. Look for SDSU Geology signs somewhere in Campground. No reservations can be made, sites are taken on a "First Come First Get" basis so if you think you will be coming out and want to be sure of having a space let me know and I will see what I can do when I get there Friday.

COMMUNICATIONS: FRS Radios channel 4, no tones, just ask for the SDSU Geology Group. Remember that FRS Radios have limited range.... Amateur Radios use Barstow Repeater, 147.180 + pl = 151.4 or, 2-M Simplex 146.520 as you get close. Sorry Jerry no CB this time. I did not check phone service while I was there so what you get may be nothing! **FUEL/SERVICES/SUPPLIES:** There are stores and fuel in Victorville and Barstow. The "Lenwood" exit about 5 miles south of Barstow has Outlet Malls and fuel, fast food, etc. If you can't find what you need there, and have missed Victorville, then you will have to stop in downtown Barstow. If any of our Alumni are interested in becoming involved with any of our Alumni Activities, like to assist with future Field Trips or has a "Special Place" in mind that would be good for a future Field Trip please let me know. If you have any questions regarding this trip, email or call me.

Joe Corones, Alumni Field Trip Chairman

jcorones@gmail.com

H 858.484.3582, C 858.603.5545

SEEKING JOB OPPORTUNITIES

Qualifications Summary and Objective: I have 14 years experience directing surface water quality monitoring programs with a proven record of excelling in monitoring plan implementation, quality control, public notification and continuous improvement in operational effectiveness and efficiency. I have built and maintained relationships with key staff in academia, industry, and all levels of government in San Diego and California. I have a widely applicable skill set which includes: analytical thinking, communication and writing skills, data analysis and management, inter and intra- agency project coordination, and staff supervision and training. My objective is to obtain a career position with an industry leader where I can contribute my skills to build the success of my employer as well grow professionally. Detailed work experience, education and more at www.linkedin.com/in/cbclifton2010. Email cbc2006@cox.net or 619-964-1776. Contact: Clay Clifton

ENGINEERING GEOLOGIST- California PG, MS Geology, over 13 years of applied geotechnical experience, proficient in geotechnical investigations, hazard evaluations, geophysical surveys, construction management and quality control, engineering analyses, special interest in earthquake-hazard and seismic design related applications, strong problem-solving and organizational skills. Detailed resume upon request: Anna, 201-407-7461, Afyodorova103@gmail.com

JOB OPENINGS!

Hargis + Associates, Inc is looking for a motivated entry level hydrogeologist with relevant course work in hydrogeology, geochemistry, and environmental sciences to join our San Diego office. http://www.hargis.com/jobs-hydrogeologist.html. We are also seeking an engineer with extensive experience in the mining industry for a position in our Tucson office. This position is well suited to a self starting individual with strong ambitions for success and promotion within Hargis + Associates. http://www.hargis.com/jobs-senior-staff-engineer-mining.html.

Seeking a Career in Southern Vice President Environmental Services (VPES)? Seeking a successful VPES (seller/doer) to help grow an environmental consulting company in San Diego, CA. The main focus is new client sales and client retention. Other duties will include technical direction and management for client projects. The primary focus for sales and technical project management are in the areas of air quality, CEQA permitting, water discharge, stormwater permitting, regulatory compliance, hazardous materials and waste management, and environmental mitigation management. 5+ years of experience, minimum Bachelor's Degree, and the ability to bring in and retain a large book of business is required. Candidates from the Orange County, CA, area will also be considered. Inquiries and resumes to: resumes@proconnectweb.com

Part-time teaching positions at Palomar College: Geology

The Geology Program at Palomar College is seeking qualified individuals to teach Basic Geology (GEOL 100) Lecture and Basic Geology Lab (GEOL 100L) beginning in the Fall 2012 semester. These courses are introductory in nature; both fulfill general education requirements and requirements for the Geology AA degree. Qualifications for teaching GEOL 100 Lecture and GEOL 100 Lab include a MS degree or higher in geology, geophysics, or the equivalent.

Palomar College is an accredited California Community College that serves more than 30,000 students and is located in San Marcos, California with an education center in Escondido. More information about Palomar College and the Geology Program can be found at http://www.palomar.edu. Interested parties should contact Patty Deen, Professor, Earth, Space, and Aviation Sciences at mailto:pdeen@palomar.edu

Sealaska Environmental Services, LLC (SES) is seeking a motivated individual with relevant environmental experience as a Project Manager, to perform all functions in managing projects under U.S. government contracts requiring environmental remedies at various governmental sites, primarily in California. This position is for our San Diego office. The <u>minimum</u> qualifications are:

- Undergraduate degree in engineering or physical science;
- A minimum of six (6) years environmental project management experience, including three (3) years of experience managing remediation projects; and
- Registered professional engineer or registered geologist in the state of California.

The Project Managers' duties and responsibilities are described at the SES website:

http://tbe.taleo.net/NA11/ats/careers/requisition.jsp?org=SEALASKA&cws=1&rid=491

Civil Engineer -TerraCosta Consulting Group is a 25-year specialty design firm providing services in two basic areas: earth retention & foundation design systems; and coastal and maritime engineering.

We are looking for a civil engineer with a geotechnical background, 3 to 5 years experience, and City of San Diego certification in concrete inspection, reinforced concrete inspection, and deep foundation/tieback inspection. Our immediate need is for a field engineer to implement geotechnical design recommendations in the field on construction projects, and perform in-office design work. Ample opportunity exists for career enhancement and growth in the areas of project design and project management. Some travel required.

Minimum Bachelors Degree in Civil Engineering (preferably with geotechnical emphasis) required. Professional registration preferred.

This is a full-time position with great benefits (401k, health, etc.). Salary commensurate with experience.

Email resume and salary requirements to: employment@terracosta.com No calls please!

Request for Sponsors: 2012 SDAG/SDGS and Publication SPONSORS

On behalf of the San Diego Geological Society, Inc. (SDGS), a public benefit 501(c)3 nonprofit educational corporation, we would like to request tax deductible Donations at our San Diego Association of Geologists (SDAG). The list of paid Sponsors and the forms to become a Sponsor are located on the SDAG web site at: http://www.sandiegogeologists.org/Sponsors.html. Your donation will further the SDGS mission to promote geology and related fields in the greater San Diego region, operating through the San Diego Association of Geologists (SDAG), a committee of SDGS. To achieve our primary educational objective, we organize frequent field trips and maintain a program of monthly meetings featuring speakers on current geological topics. We also publish field trip guidebooks and other publications related to geology and natural history. We encourage scholarship and research by awarding scholarships from the elementary through graduate levels. With your \$100 "EMERALD" donation, your name/business will be listed as a sponsor on the SDAG web site (http://www.sandiegogeologists.org/) and in the monthly SDAG meeting newsletters. With your \$500 "RUBY" or \$1,000 or more "DIAMOND" level donation, your business card will also be included on the SDAG web site and in the monthly SDAG meeting newsletters. In addition, as a "\$1,000 or more DIAMOND" level donation you will be presented with a thank you plaque. Should you have any questions regarding a Sponsorship, please contact our non-profit SDGS Secretary (Diane Murbach) at 619-865-4333

CORPORATE SPONSORS



Hargis + Associates, Inc. is an environmental consulting firm specializing in hydrogeology and engineering. We are headquartered in San Diego, California and have offices in Mesa and Tucson, Arizona. Our practice areas include all aspects of hydrogeology and engineering.

As a client service organization, we pride ourselves in being attentive and efficient in meeting our client's needs and solving their problems. In addition to our technical expertise, communication and responsive coordination are hallmarks of our reputation.

We invite you to explore our website to learn more about our firm and the services we provide. We welcome the opportunity to discuss our consulting expertise directly with you.

Contact: Dr. David R. Hargis



Cascade Drilling, L. P.

Contact: Dan Chambers



H&P Mobile Geochemistry is an industry-leading provider of environmental lab services. With ten mobile labs and five direct push sampling trucks and unparalleled experience, H&P's repertoire of environmental lab services includes many forms of environmental lab sampling techniques all the way to on site field analysis services. H&P has successfully and accurately performed environmental lab services delivering quality results to our clients for over 16 years. 2470 Impala Dr., Carlsbad, CA 92010 (800) 834-9888

Contact: Louise Adams or Suzie Reed



complex world CLEAR SOLUTIONS™

Tetra Tech is a leading provider of consulting, engineering, and technical services worldwide. We are a diverse company, including individuals with expertise in science, research, engineering, construction, and information technology. Our strength is in collectively providing integrated services—delivering the best solutions to meet our clients' needs. http://www.tetratech.com

Contact: Dave Bloom



Shaping the Future

At Cardno ERI, we're experts at providing safe, high quality, cost-effective solutions to environmental concerns. We're large enough to tackle extensive, complex projects, yet small enough to provide exceptional service in a timely manner while paying close attention to controlling costs. In short, we combine the expertise, technology, and dedicated service you need to receive the best possible solutions to your environmental concerns. http://www.cardnoeri.com

Contact: Steve Zigan

- Cari Gomes
- Dr. Sarah Gray
- Rob Hawk City of San Diego
- Jonas & Associates
- Lowell A. Lindsay and Diana Lindsay Sunbelt Publications/AESE
- Dr. Monte Marshall SDSU Prof. of Geology and Geophysics, Emeritus
- Monte and Diane Murbach Murbach Geotech
- Ninvo & Moore Jonathan Goodmacher
- SEALASKA Environmental Services, LLC, Doug Peeler



ENVIRONMENTAL & GEOTECHNICAL CONSULTANTS

Since 1991, Mission Geoscience has provided consistent and reliable professional services with our dedicated staff of highly credentialed professionals, who are committed to both timeliness and cost-effectiveness as the cornerstones of their work. MISSION's staff remains amongst the most highly respected firms in the environmental and geotechnical industry, which is why many of our clients tend to assign us their most difficult and challenging projects.

http://www.missiongeoscience.com/

Contact: Jim Ashby

- Dr. Pat Abbott SDSU Prof. of Geology and Geophysics, Emeritus
- Sally & Dennis Avery
- Dr. Richard Berry SDSU Prof. of Geology and Geophysics, Emeritus
- Curtis Burdett
- Joe Corones City of San Diego
- Greg Cranham Consulting Geologist
- Dr. Margaret R. Eggers, CHG Eggers Environmental, Inc.
- William J. Elliott, Engineering Geologist
- Phil Farguharson CG-Squared Productions
- Carolyn Glockhoff Caro-Lion Enterprises
 - Les Reed Geotechnical Exploration Inc.
 - Bob Smillie TerraCosta Consulting Group Inc.
 - David and Jan Steller ("two-fer" thanks!)
 - Dr. Anne Sturz
 - Sue Tanges Southland Geotechnical Consultants
 - Terra Costa Consulting Group, Inc.
 - David & Jan Steller
 - Mary Walke
 - Carole L. Ziegler

Add yourself to this list - Sponsors, Corporate Sponsors, and Patrons provide a significant portion of SDGS's and SDAG's operating and scholarship budgets. SDGS is a 501(c)3 public benefit nonprofit educational corporation. For more information, please see our Sponsorship Form.

> **SDAG - 13** Original 3/15/2012