Reunite with industry friends and family at CalGeo’s Annual Conference, April 23-25, 2015 in Carmel at Quail Lodge and Golf Club. The conference will encompass a broad range of must-see business, legislative and seismic technical topics. Elevate your game at the “Shake, Rattle & Roll” CalGeo Golf Tournament on Thursday Morning, April 23. Par-Tee! at the Caddyshack themed night of food, fun and frivolity at the closing night banquet on Saturday, April 25. Click Here for the Conference Brochure and to Register.

2015 CalGeo Carmel Conference Presenters and Topics are summarized below.

**Dr. Jonathan Bray, PhD, PE, UC Berkeley — “Liquefaction Issues”**

In recent earthquakes, buildings have punched into, tilted excessively, and slid laterally on liquefied or cyclically softened ground. The state-of-the-practice still largely involves estimating building settlement using empirical procedures developed to calculate post-liquefaction, one-dimensional (1D), consolidation settlement in the “free-field” away from buildings. Recent case histories and physical and numerical modeling have provided useful insights (e.g., Bray and Dashti 2014). The cyclic response of fine-grained soils is discussed along with the Bray and Sancio (2006) liquefaction susceptibility criteria.

**Dr. Ross Boulanger, PhD, PE, UC Davis — “Liquefaction Update”**

The updated cone penetration test (CPT) based liquefaction triggering procedure for cohesionless soils by Boulanger and Idriss (2014) will be presented. The updated procedure includes deterministic and probabilistic relationships derived using a maximum likelihood method with an updated case history database. The liquefaction analysis framework includes revised relationships for the magnitude scaling factor (MSF) and for estimating fines contents from CPT data when laboratory test data are not available. Other aspects of evaluating liquefaction hazards in practice will be discussed.

**Dr. Peter Robertson, PhD, Dr. Ross Boulanger, and Dr. Jonathan Bray — “Liquefaction Panel Discussion”**

Dr. Robertson will be the Moderator and panel member in the liquefaction panel discussion with other panel members, Dr. Jonathan Bray of UC Berkeley and Dr. Ross
Jeff Martin, PE, Pacific Helix Distributing, Inc. — “Learn How Helical Anchors Can Solve Some of Your Worst Design Headaches”
The presentation will consist of a brief explanation of helical pile applications and design theory followed by a discussion of three projects recently completed in various parts of California.

Dr. Jason T. DeJong, PhD, UC Davis — “Instrumented Becker Penetration Test (iBPT) For Liquefaction Characterization Of Gravely Soils Deposits”
The Becker Penetration Test (BPT) is a widely used tool for characterization of gravelly soils, especially for liquefaction potential assessment, as the performance of both SPT and CPT tools are adversely affected by the presence of larger particles. The instrumented Becker Penetrometer (iBPT) provides direct dynamic measurements at the tip of the drill string, enabling significant improvement in measurement repeatability and robustness to the driving energy and shaft resistance. A new method to estimate equivalent SPT N60 values in gravels from iBPT measurements for assessing liquefaction potential has been developed and tested at several dam sites in California.

Mr. Victor Donald, PE, Terracon — “Giving Back – An Investment in Our Profession”
This topic will challenge us to join with our local competitors to promote our profession by serving our community in innovative ways that only the geoprofession can serve. A “call to action” will provide suggestions for how to accomplish this through Social, business, and professional innovation. Using selfless approaches to local solutions can inform the community of how the geoprofessional serves the construction and the environmental profession, which will certainly help us overcome the commoditization that we fight and building a unified front of all quality geoprofessional firms standing together to serve the community.

Rudolph Bonaparte, PhD, PE, GeoSyntec — “The Business of Geotechnics”
Dr. Bonaparte will present his perspectives on the state of the industry with respect to U.S. and California private-sector businesses providing geotechnical and geoenvironmental services to clients including the history and evolution of the business sector; size and attributes of the sector; business models and practice characteristics of companies in the sector; and operational, management, and personnel priorities and challenges of these firms. Sustained business success is being achieved by both large and small firms practicing geotechnology that can recruit and retain great people, provide superior work deliverables and solutions to their clients, perform their work
efficiently and at a reasonable cost, and navigate both the competitive and risk management landscapes.

**Dr. Jonathan Bray, UC Berkeley — “Seismic Slope Stability Analysis”**

Dr. Bray will be back to discuss seismic slope stability analysis. Simplified procedures are commonly employed to estimate seismic displacements of native slopes and earth and waste fills. Key aspects of seismic slope displacement procedures are discussed, and the Bray and Travasarou (2007) simplified procedure for estimating permanent displacements due to earthquake-induced shear deformations is presented. A rational basis for selection of the seismic coefficient for use in a pseudostatic slope stability analysis is also discussed (Bray and Travasarou, 2009).

**Dr. Samuel Johnson, PhD, USGS — “California Seafloor Mapping Including Monterey Bay”**

Dr. Johnson is a Research Geologist in the U.S. Geological Survey Pacific Coastal and Marine Science Center in Santa Cruz. He currently designs, coordinates, and conducts research projects that focus on seafloor mapping, coastal and marine geomorphology and geologic framework, coastal evolution, and coastal earthquake and tsunami hazards. He is the USGS lead for the California Seafloor Mapping Program, an ambitious cooperative program to create a comprehensive coastal/marine geologic and habitat base map series for all of California's State waters, including the Monterey Bay Area.

**Van Allyn Goodwin, Esq., Littler Mendelson — “The 2015 Labor and Employment Law Update”**

Mr. Goodwin’s presentation will include a summary of key labor and employment decisions and important new legislation affecting California employers, with an emphasis on those that specifically affect geotechnical consulting firms.

For complete information click [here](#), and download the Conference Brochure. You can also register online there.

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**New Law Establishes Contractor Registration Program for Public Works Projects**

A new California State law, SB 854, establishes a new public works contractor registration program for all contractors and subcontractors who wish to perform work on public works projects. The new law requires that contractors meet minimum qualifications related to workers compensation insurance coverage and contractor’s licenses; they also cannot have any delinquent unpaid wages or penalty assessments owed to employees or enforcement agencies, be under federal or state debarment, or have violations related to registration requirements for public works projects. The contractor registration program is intended to replace prior Compliance Monitoring Unit (CMU) and Labor Compliance Program (LCP) requirements.

The non-refundable fee for registration and annual renewal has been initially set at $300 and will be used to fund the Director of Industrial Relations (DIR) public works activities, including compliance monitoring and enforcement, determination of prevailing wage rates, public works covering determinations, and hearing of
enforcement appeals. The DIR will post a list of registered contractors and subcontractors on its website for use by awarding bodies and contractors.

Contractors are required to register and pay fees on-line. Registrations began on July 1, 2014. The requirement to list only registered contractors and subcontractors on bids becomes effective March 1, 2015; the requirement to use only registered contractors and subcontractors on public works projects applies to all projects awarded on or after April 1, 2015.

In addition, contractors and subcontractors will be required to submit certified payroll records to the Labor Commissioner for all public works projects, unless specifically excused. This requirement will apply immediately to all public works projects that have already been under CMU monitoring, and all public works project awarded on or after April 1, 2015. Exceptions may be granted if projects are covered by a qualifying project labor agreement or are undertaken by awarding bodies with ‘legacy’ LCPs, as long as those LCPs remain approved by DIR.

For more information follow this link to the DIR website [http://www.dir.ca.gov/Public-Works/PublicWorks.html](http://www.dir.ca.gov/Public-Works/PublicWorks.html). A Contractor Registration Webinar will be held January 27, 2015.

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**Member News**

**Welcome New Members**

We welcome our newest members and appreciate the support.

**Active Member:**

C2Earth, Inc.
750 Camden Avenue, Suite A
Campbell, CA 95008
Contact: Craig Reid
(408) 866-5436
e/m: craig@c2earth.com

**Individual Member:**

E3 Financial
4100 Newport Place Drive, Suite 650
Newport Beach, CA 92660
Contact: Scott Ripley
(949) 724-1964
e/m: scott@e3Financial.com

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**Safety First**

**Cold Weather Safety Tips**

As temperatures drop this winter, the American Red Cross offers ten steps people can take to stay safe during the cold weather.
1. **Layer up!** Wear layers of lightweight clothing to stay warm. Gloves and a hat will help prevent losing your body heat.

2. **Don’t forget your furry friends.** Bring pets indoors. If they can’t come inside, make sure they have enough shelter to keep them warm and that they can get to unfrozen water.

3. **Remember the three feet rule.** If you are using a space heater, place it on a level, hard surface and keep anything flammable at least three feet away – things such as paper, clothing, bedding, curtains or rugs.

4. **Requires supervision** – Turn off space heaters and make sure fireplace embers are out before leaving the room or going to bed.

5. **Don’t catch fire!** If you are using a fireplace, use a glass or metal fire screen large enough to catch sparks and rolling logs.

6. **Protect your pipes.** Run water, even at a trickle, to help prevent your pipes from freezing. Open the kitchen and bathroom cabinet doors to allow warmer air to circulate around the plumbing. Be sure to move any harmful cleaners and household chemicals out of the reach of children. Keep the garage doors closed if there are water lines in the garage.

7. **Better safe than sorry.** Keep the thermostat at the same temperature day and night. Your heating bill may be a little higher, but you could avoid a more costly repair job if your pipes freeze and burst.

8. **The kitchen is for cooking.** Never use a stove or oven to heat your home.

9. **Use generators outside.** Never operate a generator inside the home, including in the basement or garage.

10. **Knowledge is power.** Don’t hook a generator up to the home’s wiring. The safest thing to do is to connect the equipment you want to power directly to the outlets on the generator.