

SAN DIEGO ASSOCIATION OF GEOLOGISTS

www.sandiegogeologists.org

SDAG MEETING ANNOUNCEMENT

WEDNESDAY, January 16, 2013

Joint Meeting with the Earthquake Engineering Research Institute (EERI), San Diego Chapter & Structural Engineers Association of San Diego (SEAOSD)

NRC REGULATIONS FOR SEISMIC ANALYSIS AND DESIGN APPLIED TO SAN ONOFRE NUCLEAR GENERATING STATION

Presented by

Christie Hale and Megan Williams
Nuclear Regulatory Commission, Region IV

Where: **Grand Pacific Palisades Resort and Hotel**

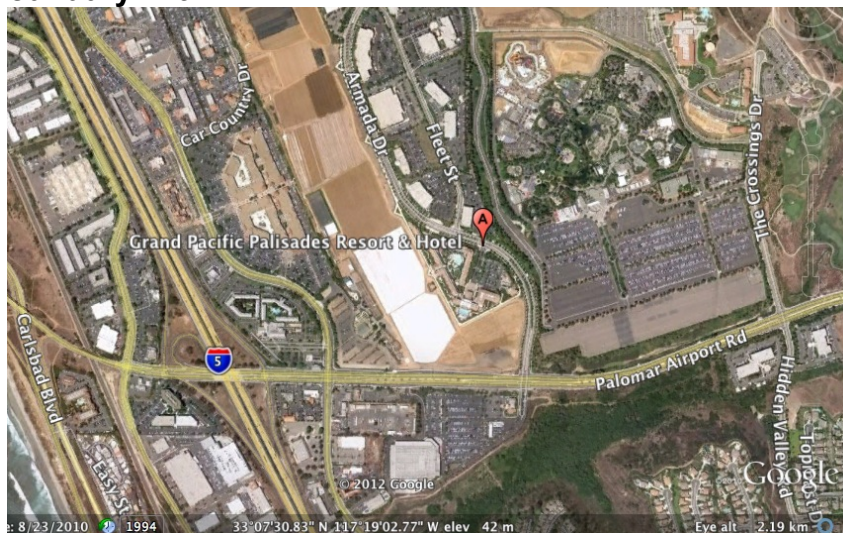
Carlsbad Grand Pacific Ballroom
5805 Armada Drive, Carlsbad, 92008
(760) 827-3200

When: 5:30 pm – Social Hour
6:30 pm – Dinner
7:30 pm – Program

Dinner: Italian Buffet. Cash bar.

Cost: \$35 per person, \$5 discount for members, STUDENTS: \$20. Add \$5 if you did not make a reservation.

Reservations: Make your reservation **online** at www.sandiegogeologists.org no later than noon, Monday, January 14th.



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

SPEAKER ABSTRACT

**Christie Hale and Megan Williams
Nuclear Regulatory Commission, Region IV**

NRC Regulations for Seismic Analysis and Design applied to San Onofre Nuclear Generating Station

The Nuclear Regulatory Commission regulates commercial nuclear power plants through licensing, inspection, and enforcement of its regulations. An important general design criterion for each nuclear power plant is the development of a ground-shaking level that is appropriate for its location, given the potential earthquake sources that may affect the site and its tectonic environment. Nuclear power plant structures, systems, and components important to safety are designed to withstand the effects of earthquakes without loss of capability to perform their safety functions. Seismic categories are used to differentiate systems and components that are required to achieve safe shutdown and maintain the reactor in a safe condition from those secondary plant systems and components that are not essential for the safe shutdown of the reactor following a postulated seismic event. Advances in seismic hazard assessment and the recent earthquake and tsunami at the Fukushima Dai-ichi nuclear power reactors in Japan have led to changes in the NRC's regulations and guidance for seismic analysis. In March of 2012, the NRC issued a Request for Information Letter to all operating nuclear power plants, requesting plants to submit updated seismic hazard information to the NRC, using an approach that is consistent with current NRC guidance. This presentation will discuss the NRC's geologic and seismic siting criteria, earthquake engineering criteria, and post-Fukushima actions, specifically as these topics relate to the two commercial nuclear power plants in California.

SPEAKER BIOS

Christie Hale and Megan Williams are civil engineers in the NRC Region IV office located in Arlington, Texas. Region IV is responsible for the 14 U.S. commercial nuclear power plants west of the Mississippi River, including the two California sites. They support the region on a variety of inspections of these plants, including a focus on civil engineering aspects such as seismic and flooding issues.

~~~~~

## **SDAG MEETING SCHEDULE - Mark Your Calendars!**

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

|                                                |                                     |
|------------------------------------------------|-------------------------------------|
| February 27, 2013<br><b>(FOURTH Wednesday)</b> | <b>Al Trujillo, Palomar College</b> |
| <b>THURSDAY</b> , March 21,<br>2013            | <b>Dr. Mario Caputo, SDSU</b>       |
| April 17, 2013                                 | <b>SDAG Scholarship Recipients</b>  |

~~~~~

2013 EXECUTIVE COMMITTEE

PRESIDENT – Cari Gomes; cg7783@yahoo.com

VICE PRESIDENT – Brian J. Olson; *FSR Engineering*; Ph: (858) 750-9243; bolson@fsrengineering.com

TREASURER – Lee Vanderhurst; Ph: (858) 531-7729; lee@leev-geology.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

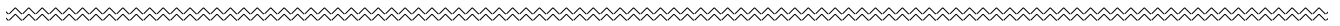
Happy New Year Everyone! I hope you and your families have had a fun holiday season.

For those of you who were not at the December meeting, my name is Cari Gomes and I am your new President. This year is going to be a GREAT one for SDAG. We have a number of wonderful speakers lined up representing a wide range of specialties within the field of Geology. The very first presentation in January will be a joint meeting with the Earthquake Engineering Research Institute (EERI), San Diego Chapter and the Structural Engineers Association of San Diego (SEAOSD) in Carlsbad. Future meetings include Palomar College's Al Trujillo, San Diego State's Dr. Mario Caputo, and our always popular student presentations.

We have a very exciting field trip being organized by our new vice-President Brian Olson with the working title of Alternative Rocks: The Geology and Natural Resources Above and Below the San Luis Rey River Valley, Northern San Diego County, California (please see the call for papers included in this newsletter). The lovely Jen Morton has agreed to be our Secretary again this year, and Lee Vanderhurst will be our new Treasurer.

The officers of SDAG are here for YOU! We welcome any input on how we can make SDAG an even better organization. Please feel free to contact any of us with suggestions.

Cari Gomes  
2013 SDAG President



# CALL FOR PAPERS

*FOR THE SDAG 2013 ANNUAL FIELD TRIP GUIDEBOOK*

## ALTERNATIVE ROCKS:

The Geology and Natural Resources Above and Below the San Luis Rey River Valley,  
Northern San Diego County, California



In this trip, we will explore the multitude of geologic and associated natural processes that have shaped the San Luis Rey river valley of north-central San Diego County. We hope to tour a variety of sites of geologic interest, demonstrating

- Mineral wealth, from precious gemstones to concrete aggregate,
- Geomorphic diversity, like landslides, terraces and maybe even a fault trace or two.
- Anything else our knowledgeable SDAG constituency can come up with....

As always, SDAG seeks new manuscripts based on original work in the broad fields of regional geology, sedimentology, soil, tectonics, hydrogeology, paleontology, engineering geology, petrology, geomorphology, paleoclimatology, landslides, and related fields. Given the locale, articles on the rich Native American history of the area are also welcome.

**Deadline for submission of abstract: Sunday March 17, 2013 (Saint Patrick's Day)**

Please include the following information when submitting abstract:

- Title,
- Author(s) and affiliation,
- Address, e-mail, and telephone numbers for the corresponding author.

Submit abstract by e-mail to Brian J. Olson: [bolson@fsengineering.com](mailto:bolson@fsengineering.com) (858) 750-9243

# ANNOUNCEMENTS

## 2013 Desert Symposium

Plan to share your research with a presentation or a poster!

**Paper Submission Deadline: January 15, 2013**

**Presentation Theme: Adaptations to Environmental Extremes**

**Field Trip:** April 21- 22, 2013 Zzyzx, California

**Day 1:** More Questions Than Constraints: Correlation Challenges Between the Calico Mountains and Mud Hills

Leaders: Dr. Peter Sadler, Dr. David Miller, and Robert Reynolds

**Day 2:** Valleys on Mountain Tops: Cady and Rodman Mountains

Leaders: Dr. Kevin Schmidt, Dr. David Miller, and Robert Reynolds

Additional information to follow. Please forward this information to other interested individuals and invite them to send their email addresses to [wpresch@fullerton.edu](mailto:wpresch@fullerton.edu), California State University, Fullerton.

<http://biology.fullerton.edu/dsc/>

---

**NEW SDAG RESEARCH TOOL NOW AVAILABLE!** A comprehensive listing of all papers published by SDAG, whether as annual field trip guidebooks or special publications, is now available on our website. Entries are sorted by primary author, or chronologically by date of publication, from our first guidebook in 1972 (40 years ago!) to all things Picacho in 2011. These can be accessed or downloaded as .pdf files. They are fully searchable in Adobe Reader or Acrobat, so if you are researching a topic, "tsunami" for example, you can search for that keyword. This listing will be updated as new books are published. Thanks to Greg Peterson and Hargis + Associates, Inc., for making this possible. See the links below:

[http://www.sandiegogeologists.org/SDAG\\_Pubs\\_authors.pdf](http://www.sandiegogeologists.org/SDAG_Pubs_authors.pdf)

[http://www.sandiegogeologists.org/SDAG\\_Pubs\\_chronological.pdf](http://www.sandiegogeologists.org/SDAG_Pubs_chronological.pdf)

---

**WAREHOUSE & OFFICE SPACE AVAILABLE** in El Cajon, short-term rental or long-term lease. Warehouse from 3125 to 6250 s.f. Two offices. Mix and match to fit your needs. Ideal for geotech operations; best possible rates and we are geology-friendly! Contact Lowell Lindsay (619) 258-4911 x111, [LLindsay@Sunbeltpub.com](mailto:LLindsay@Sunbeltpub.com)

~~~~~

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

ENTRY-LEVEL ENVIRONMENTAL SCIENTIST - I am a recent UCSB graduate with a double major in Environmental Studies (BS) and Geology (BS, Earth Systems emphasis) who is looking to begin a career in environmental consulting. I have prior lab experience in both professional and academic settings. I am looking to establish myself with a passionate and hard working environmental firm in the San Diego region. For further information about my credentials and work experience please contact Georgi Chertkov at georgichertkov@gmail.com or call me at 505-412-3107.

~~~~~

## **Request for Sponsors: 2013 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.**  
HYDROGEOLOGY • ENGINEERING

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*



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*



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.tetrattech.com>

*Contact: Dave Bloom*



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*



**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**



**Chambers Environmental Services, Inc.**

**Dan Chambers**

President

**Phone/FAX (858) 279-3266**

Cellular: (619) 889-9331

E-Mail: [DWChambers@Hotmail.com](mailto:DWChambers@Hotmail.com)

4510 Mt. Henry Avenue

San Diego, CA 92117

- [Dr. Pat Abbott](#) - SDSU Prof. of Geology, Emeritus
- Sally & Dennis Avery
- [Dr. Richard Berry](#) - SDSU Prof. of Geology and Geophysics, Emeritus
- Curtis Burdett
- Joe Coronas - [City of San Diego](#)
- Greg Cranham - Consulting Geologist
- Dr. Neal Driscoll – UCSD Professor of Geology and Geophysics
- Dr. Margaret R. Eggers, CHG - [Eggers Environmental, Inc.](#)
- William J. Elliott, Engineering Geologist
- Phil Farquharson - [CG-Squared Productions](#)
- Carolyn Glockhoff - [Caro-Lion Enterprises](#)
- Cari Gomes
- [Dr. Sarah Gray](#)
- Rob Hawk [City of San Diego](#)
- 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](#)
- [Ninyo & Moore](#) - Jonathan Goodmacher
- Brian J. Olson
- Peets Coffee and Tea, Store No. 342 , Carlsbad [www.peets.com](http://www.peets.com)
- Les Reed – Geotechnical Exploration Inc.
- Rigid Lifelines [www.rigidlifelines.com](http://www.rigidlifelines.com)
- SEALASKA Environmental Services, LLC, Mukesh Mehta, PG, CEG
- 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
- Don Wilson Clark and Katy Freese
- Gerald Shiller
- <http://www.youtubedownloadersite.com/>

**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.

