

www.sandiegogeologists.org

SDAG MEETING ANNOUNCEMENT

WEDNESDAY, August 17TH, 2011

San Vicente Dam Raise

Presented by

Dave Schug – URS Corporation

Where: Sunbelt Publications, Inc. 1256 Fayette Street El Cajon, CA 92020 (619)258-4911



- When:5:30 pm Social Hour
 - 6:30 pm Dinner 7:15 pm – Program
- **Dinner:** Lasagna (*Casserole Italiano*)
- **Cost:** \$30 per person, \$5 discount for members, STUDENTS: \$20. Walk-Ins and 11th Hour Reservations, please add \$5.
- **Reservations:** Make your reservation <u>online</u> at <u>www.sandiegogeologists.org</u>, **No later than 5pm**, <u>*Monday*</u>, **August 15**th.

SPEAKER ABSTRACT

The San Vicente Dam Raise

Dave Schug, URS Corporation, 4225 Executive Square #1600, San Diego, California – 858.812.9292

The San Diego County Water Authority (Water Authority) is undertaking a raise of the existing San Vicente Dam to provide both emergency and carryover storage to increase local reservoir supplies in San Diego County, California. This paper presents the geological investigation and geotechnical testing performed for the dam raise design. The dam site is located in crystalline bedrock of Mesozoic age including Jurassic metavolcanic rocks, and Jurassic-Cretaceous gneissic granodiorite. Key features at the dam site include the geologic contact between the two rock units underlying the dam within the main valley, a mafic dike on the right abutment, and a series of close spaced shears on the left abutment of the raised dam. A saddle dam is underlain by the granodiorite, and is near the geologic contact with the Tertiary Stadium Conglomerate. Hard metavolcanic cobbles comprising the conglomerate will be crushed to produce aggregates for roller compacted concrete to construct the raised and saddle dams.

Subsurface explorations for design included core borings through the existing dam and rock foundation, packer testing, down-hole geophysical surveys and seismic refraction profiles. Geologic mapping was performed to characterize rock discontinuities such as fractures, joints and shears. Piezometers were installed in borings and monitoring wells were constructed downstream of the dam. Laboratory tests were conducted to characterize rock mass properties. The field investigation provided the basis for determining the excavation limits for the raised dam to be founded on slightly weathered or fresh rock and for saddle dam to be on moderately to slightly weathered rock. The test results were also used to evaluate excavation stability and foundation preparation.

SPEAKER BIO

SPEAKER: DAVID SCHUG

David Schug has over 30 years' experience, including geologic explorations, geophysical surveys, groundwater investigations, and geologic hazards studies for pipelines, tunnels and dams. His experience includes fault hazard investigations using remote sensing, photogeology, trenching, agedating and geophysics. He has been project geologist during construction of large diameter tunnels in hard rock and in soft ground. Dave was involved in geologic investigations for all phases of the San Diego County Water Authority's Emergency Storage Project, including San Vicente Dam Raise, San Vicente Tunnel, Lake Hodges Projects, and Olivenhain Dam. He is a graduate of SDSU with a BS and MS in Geology.

2011 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!

September 14, 2011	Tom Rockwell - EQ recurrence in So Cal versus other parts of the world
October 19, 2011	Gary Girty - Picacho Area-prelude to 2011 field trip
November 16, 2011	Kieth Meldahl - Rough-Hewn Land: A Geologic Journey from California to the Rocky
	Mountains

2011 EXECUTIVE COMMITTEE

PRESIDENT – Chuck Houser; SCS Engineers; Ph: (858) 571-5500; CHouser@scsengineers.com <u>VICE PRESIDENT</u> – Todd Wirths; *TRC*; Ph: (858) 505-8881, x4927 ; <u>TWirths@trcsolutions.com</u> or <u>todd@wirths.com</u> <u>SECRETARY</u> – Brian J. Olson; *FSR Engineering*; Ph: (858) 750-9243; <u>bolson@fsrengineering.com</u> or <u>brianjolson@att.net</u> <u>TREASURER</u> – Cari Gomes; <u>sdagtreas@sandiegogeologists.org</u> <u>PUBLICATIONS</u> – Lowell Lindsay; *Sunbelt Publications*; Ph: (619) 258-4911, x111; fax:(619) 258-4916; <u>llindsay@sunbeltpub.com</u> <u>WEBMASTER</u> – Carolyn Glockhoff; *Caro-Lion Enterprises*, Ph: (858) 549-3396; <u>carolyn@caro-lion.com</u>

PRESIDENTS CORNER, JULY 2011

Although I couldn't attend the meeting, I understand the presentation by Mark Legg at Bali Hai in July was excellent. I was out of town and I appreciate Todd and others who made the meeting go smoothly even with the typical last minute crises that always materialize. We've had excellent speakers this year and it's not over yet! Dave Schug will be speaking on August 17 about the San Vicente Dam Raise. Go to http://www.sdcwa.org/san-vicente-dam-raise to read about the project and come to the meeting! I believe this will be a very special presentation!

Also be sure to put the September meeting on your calendar. Dr. Tom Rockwell will be speaking about his studies around the world and implications for Southern California faulting and seismicity. That meeting is scheduled for Tom Ham's Lighthouse, so the venue and food will be excellent. Please note that the September meeting is scheduled a week earlier than usual, on the 14th of September rather than the 21st. This is due to several conflicts with other professional association meetings the week of the 21st.

I'd like to take a moment of your time and recognize Dr. Margaret Eggers, 2005 SDAG President, elected this past April to the Geological Society of America Fellowship. Society Fellowship is an honor bestowed upon the best of our profession for their distinguished contributions to the geosciences. Congratulations Margaret, we are proud to be associated with you!

Finally, the 2011 field trip preparations are reaching a feverish pitch. Thanks to all who have assisted Todd in the preparations. Keep November 4-6 free for this great trip! One unsung hero I'd like to mention is Charlie Lough. For the Borrego trip last year and now for the 2011 trip to the Picacho area, he has provided reference material that has been very useful to the trip planners. Thanks Charlie, we appreciate your work!

Chuck Houser



Р Mobile Geochemistry is an industry leading provider of environmental lab services. With ten mobile labs and five direct push sampling trucks and unparalleled H&P' experience. S of repertoire environmental lab services includes many forms of

environmental lab sampl- ing 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:* **Suzie Reed**



MISSION GEOSCIENCE, INC.

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



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*

- <u>Dr. Pat Abbott</u> SDSU Prof. of Geology and Geophysics, Emeritus
- Sally & Dennis Avery
- Dr. Richard Berry SDSU Prof. of Geology and Geophysics, Emeritus
- Curtis Burdett
- Joe Corones <u>City of San Diego</u>
- Greg Cranham Consulting Geologist
- Dr. Margaret R. Eggers, CHG Eggers Environmental, Inc.
- Phil Farquharson <u>CG-Squared Productions</u>
- Carolyn Glockhoff <u>Caro-Lion Enterprises</u>
- Dr. Sarah Gray
- Rob Hawk <u>City of San Diego</u>

C Cardno

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**

- Jonas & Associates
- Lowell A. Lindsay and Diana Lindsay <u>Sunbelt</u>
 <u>Publications/AESE</u>
- Dr. Monte Marshall SDSU Prof. of Geology and Geophysics, Emeritus
- Monte and Diane Murbach Murbach Geotech
- <u>Ninyo & Moore</u> Jonathan Goodmacher
- David and Jan Steller ("two-fer" thanks!)
- Dr. Anne Sturz
- Sue Tanges -Southland Geotechnical Consultants
- Terra Costa Consulting Group, Inc.
- 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

ANNOUNCEMENTS:

2011 SDAG Field Trip: Picacho State Recreation Area and the Cargo Muchachos: The Latest!

Plans for this year's field trip and accompanying guidebook are progressing well. We'll be staying at the group sites (very cozy) at the Picacho State Recreation Area November 4 through 6, 2011. You may have heard that Sacramento has scheduled Picacho SRA for closure next summer. So far, it doesn't appear that this will affect us, so all systems are go.

Original articles are still being solicited for the guidebook. While Dr. Gary Girty and his students at SDSU will be making significant contributions to the field trip and guidebook for the area around Picacho, much of the geology in and around the Cargo Muchacho Mtns. hasn't been addressed since the 1980's, and a fresh look is warranted.

Volunteers are requested to conduct a little research- in Yuma. The Yuma branch of the Arizona Historical Society has a vast repository of archival photos, articles and books on mines and mining in the area. I need some old-time mine photos to dress-up guidebook papers. Also, the Imperial County Historical Society might be worth looking into as well.

Finally, I have discovered that this area of California possesses a wealth of not only geology, but a long and colorful history. I am doing my best to incorporate as much as possible to produce an informative, as well as enjoyable, volume. To accomplish this, I'm requesting the assistance of **sponsors** to help make this possible. The use of archival photos, historic newspaper articles, and reprints of technical papers all require a bit of spare change (ok, maybe a little more). The guidebook is developing into a real "gem" and a little help will polish it up nicely.

Please contact your VP Todd Wirths at 858-337-0098 or <u>todd@wirths.com</u> for any suggestions, comments, etc. More to come, thanks!



2011 SDSU 2011 SDSU Geology Department/Alumni Picnic Announcement

When: Saturday, Sept. 10, 2011, 11am-4pm

Where: Santee Lakes, Picnic Spot "O"

What: The Geology Department & AGS will provide burgers and hot dogs, our Alumni Group will provide beverages; please bring a dish to share

Parking: is \$5/car or there is ample free parking a short walk away at the intersection of Fanita Parkway and Lake Canyon Rd.

We are looking for someone to bring a volleyball net & ball or any other fun group games! Family & guests are most welcome! Please **RSVP at the Dept. website after Aug. 1**. (www.geology.sdsu.edu)



Association of Earth Science Editors 45th Annual Meeting "Expanding our Boundaries: Geoscience Editing in the Digital World" Governors Inn Hotel, Tallahassee, Florida November 14–17, 2011 Technical sessions November 15–16 Field trip on karst features November 17

For more information about the annual meeting, visit www.aese.org or contact Jane Eggleston, host chair, jegg@usgs.gov, or Carole Ziegler, AESE vice president, technical program chair, sdageditor@gmail.com. AESE is an organization of editors, journal

managers, and others involved with publication in the earth sciences. Its purpose is to facilitate cooperation among editors and to promote effective dissemination of earth-science information. AESE maintains liaisons with AGI, AAAS, CSE, EASE, and GSA. The registration fee for the annual meeting includes a one-year membership in AESE. Membership benefits include a subscription to AESE's quarterly digital newsletter, the *Blueline*, and access to a members-only listserv and jobs board. Follow us on our Web site at www.aese.org, on our blog at geoeditors.wordpress.com, on Facebook at tinyurl.com/3n2vrxw, on Twitter at twitter.com/#!/AESErocks, and LinkedIn at tinyurl.com/3scpt7e

MEETINGS AROUND THE REGION:

The **Coastal Engineering Practice Conference**, to be held in San Diego August 21-24, 2011. The conference is recommended for all engineers, geologists, and consultants seeking solutions to coastal engineering and development problems.

SEEKING JOB OPPORTUNITIES

Seeking a Career in Southern California - Motivated and enthusiastic mid-level geotechnical project engineer with 4 years of experience in linear, underground and maritime infrastructures, seeking to leverage her diverse project experiences to continue her technical career development in a dynamic growing firm. Knowledge of geotechnical calculations and numerical simulations to study the behavior of the interaction of soil-structure with 2D and 3D software, to design the foundation in the safest and most economical manner. Wide experience in preparing and writing proposals and technical reports. Experience in leading and conducting geological and geotechnical field work. Used to working in a team environment to successfully deliver projects. Interested in informational interviews as well employment opportunities. Contact: Carme Cervantes, <u>carmecervantes@hotmail.com</u>, 4250 4th Avenue, San Diego 92103, CA. (858) 888-3716

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

JOB OPENINGS!

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

Entry-Level Staff Geologist (San Diego, CA) RORE, Inc., is a woman-owned, small-business contractor located in San Diego, CA. We are looking for a highly motivated entry-level geologist with exceptional written and verbal communication skills. We offer a challenging work environment, competitive salary, training & professional development, and excellent benefits. The ideal candidate should possess the following:

- A bachelor's degree in Geology or Geological Sciences (geophysics, geochemistry, earth science, or soil science);
- Exceptional written and verbal communication skills;

- Has a desire to pursue a California Geologist-In-Training (GIT) certificate and subsequently a Professional Geologist (PG) certification;
- Practical mechanical ability to adapt to the various challenges presented by field work;
- This position will have field and non-field related responsibilities. Some travel is required;
- 0-3 years of previous experience. 40-hour HAZWOPER trained preferred;
- Attention to detail and strong written/oral communication skill sets required;
- Should have basic knowledge of Microsoft Office programs; and
- AutoCAD and GIS skills a plus.

Job Requirements: Typical tasks will include field work planning and preparation, drilling and monitoring well installation oversight, and remedial system permitting, design, fabrication, and operation. Field work will also consist of the collection and proper documentation of soil and groundwater samples to define the nature and extent of soil and groundwater contamination. Since the candidate will be heavily involved in the writing of work plans and supporting documentation, a representative writing sample may be required during the interview process. Equal Opportunity Employer. If interested in this Entry-Level Staff Geologist job, please submit resumes to:

Human Resources hr@roreinc.com 858-404-7395 (fax) No phone calls please.

Request for Sponsors: 2011 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.

Parting Lineation...

"The location of the University of Wisconsin is surprisingly ideal for modern oceanographic studies. It lies midway between the Atlantic and Pacific Oceans..." - University of Wisconsin pamphlet, *Study at the Sea (1967).*