



ASSOCIATION OF ENVIRONMENTAL & ENGINEERING GEOLOGISTS
Southern California Section
"Connecting Professionals, Practice, and the Public."

NEWSLETTER – November 2009

Officers

Chair - Peter Thams, thams.peter@gmail.com, 805-493-0663
 Vice Chair – Dave Perry, dlperry@mactec.com, 323-889-5326
 Treasurer - Jon Relyea, jonrelyea@gmail.com, 818-521-9730
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Visit the Southern California Section Website: www.aegsc.org

Newsletter Editor – Stephen Varnell, svarnell@fugro.com, 805-650-7000

Meeting Date: *Tuesday, November 10th*****

*****Location:** **Cisco’s Mexican Restaurant:** 925 South Westlake Blvd., Westlake Village, 91361, (805) 778-1191. Just south of 101 Fwy at Westlake Blvd. Exit

Time: 6:00 p.m.-Social Hour; 7:00 p.m.-Dinner; 7:45 p.m.-Presentation

Cost: \$30 per person with reservations, \$35 without reservations, \$15 with a valid Student ID.

Reservations: Please e-mail Peter Thams at thams.peter@gmail.com, or call 805-493-0663

Speaker: **Stephen L. Varnell, P.G., C.E.G., Project Geologist, Fugro West, Inc.**

Topic: **Geologic Studies and Seismic Source Model for a Proposed New Ocean Outfall, San Pedro Shelf, California**

Abstract:

Coauthors: Phillip J. Hogan, Fugro West Inc., Patrick Smith, Fugro West Inc., Thomas W. McNeilan, Fugro Atlantic, and Robert Dame, Fugro West, Inc.

The Sanitation Districts of Los Angeles County (Districts) are evaluating the feasibility of a new tunnel and ocean outfall for its Joint Outfall System. Fugro performed offshore geotechnical and seismic survey campaigns for the project between 2004 and 2008. Based on these new data, we describe structural and stratigraphic conditions on the Palos Verdes (PV) and San Pedro (SP) Shelves and adjacent slopes.

The offshore stratigraphy consists of a sequence of Cenozoic marine strata overlying Mesozoic basement rocks consisting of Catalina Schist. Soil and rock units present beneath portions of the shelf and slope in the survey area include: 1) Catalina Schist, 2) Monterey Formation, 3) Malaga Mudstone, 4) Fernando Formation, 5) Late Pleistocene sediments, and 6) Holocene sediments. Miocene basaltic intrusions are found within the lower Monterey Formation.

The PV Anticlinorium (PVA) dominates the structure of the Project Area. The PVA extends onshore and offshore for approximately 30 miles, from Santa Monica Bay to SP Bay, and is associated with a broad zone of uplift adjacent to the Palos Verdes Fault Zone (PVFZ). The PVFZ is an inverted Miocene normal fault that has been reactivated as a transpressional structure in the Plio-Pleistocene (Brankman and Shaw, 2009). We interpret the PVA as a broad hanging-wall anticline above the southwest-dipping PVFZ. Our current seismic source model, including segmentation of the PVFZ is presented.

Shorter faults, such as the Cabrillo fault and other faults on the continental shelf and slope to the southwest of the Project Area are considered secondary structures related to the PVFZ, PVA, and a deep basal decollement underlying the southern LA Basin and SP Shelf. The Cabrillo fault and numerous other short faults may have formed as bending moment faults as a consequence of folding during uplift of the PVA concurrent with shortening across the LA Basin.

Potentially active and inactive southwest-dipping reverse faults are present beneath the SP Slope, creating a stable buttress against slope failures. This appears to have resulted in relatively stable bedding conditions on the outer SP Shelf and Slope. Potential fault rupture and seismicity present geohazard challenges to the project. Geohazards will be mitigated through appropriate engineering design of the facilities.

Speaker:

Stephen Varnell is a project geologist in the Marine Geohazards Group in the Nearshore division of Fugro West, Inc. in Ventura, California. He specializes in marine geology, geohazards, and geophysical data interpretation for large infrastructure projects such as oil and gas facilities, pipelines, ports and harbors. He has a B.S. in Earth Sciences from U.C. San Diego, and an M.S. in Earth Sciences with an emphasis on marine geology from U.C. San Diego that was completed in conjunction with the Scripps Institution of Oceanography. He has over 8 years of geologic consulting experience, including over 4 years at Fugro West, and 4 years at LGC Valley, Inc., where he worked for former AEG Southern California Section Chair Matthew Hawley. Stephen is a licensed Professional Geologist in the state of California, and a Certified Engineering Geologist in California as well. He is also the Newsletter Editor for the Southern California Section of AEG.

Chair Column

Peter Thams

Greetings Section. I'm going to be brief this month since I just sent you an update on happenings with the Board for Geologists and Geophysicists (BGG) and won't repeat that information here. Unfortunately, the BGG issue has consumed much of the available energy in the Section and not much else is going on.

I'd like to change that and I'd like to be reporting on all the good work committees have been doing, such as the Membership Committee and the Student Outreach Committee and citing some of their successes. Have I mentioned that there is a contest going nationwide to raise membership and the **top two AEG members that recruit the most new members by the end of the year will receive a free round trip ticket on Alaska Airways or a free round trip ticket on Southwest Airlines, respectively?** These two round trip tickets were donated by current AEG members in an effort to support the membership drive. We are looking for volunteers for these committees and you may contact me if you are interested in participating. Summary notes of the Board of Directors meeting in Lake Tahoe are included below.

It's election time again and we will be sending out ballots soon. Our Treasurer, Jon Relyea, has moved to Pennsylvania to pursue new opportunities and will not be on the ballot this month. John was a great asset to the Section for several years, serving as newsletter editor and recently Treasurer. We wish Jon the best and hope he continues to be involved with AEG when he gets settled.

Please join us at **Cisco's in Westlake Village** where Steve Varnell will be presenting his work on a proposed new ocean tunnel and outfall on the San Pedro Shelf, California. Steve was scheduled to present his talk last month at Victorio's, but the meeting was cancelled. We have not met at Cisco's before and we're hoping this will be a good venue to attract the Ventura County and West Valley membership.



ASSOCIATION OF ENVIRONMENTAL & ENGINEERING GEOLOGISTS

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ASSOCIATION OF ENVIRONMENTAL & ENGINEERING GEOLOGISTS (AEG) Board of Directors Meeting Summary

The Association of Environmental & Engineering Geologists (AEG) Directors convene meetings biannually to review the status and conduct the business of our organization. On September 26th and 27th, 2009, the Board of Directors (BOD) Meeting was held in Stateline, Nevada, the site of the AEG Annual Meeting. Detailed meeting minutes were prepared and will be provided for BOD acceptance at the next Mid Year Board Meeting, which will take place in St. Louis, Missouri, on May 1st and 2nd, 2010. The following summary was prepared to assist our Directors in highlighting major issues and topic areas for communication to the general membership. Each Director is invited to report those items that most pertain to their Section.

The AEG's Board of Directors (BOD) is comprised of the twenty-five (25) Section representatives and five (5) Executive Council members, totaling thirty (30) Directors. Twenty (20) Section Chairpersons or their proxies were present along with the Executive Council (EC): President Kreuger, Vice President/President-Elect Hilton, Treasurer Bauer, Secretary Morris, and Past-President Molinari, achieving the required majority present for a quorum. Chief Operating Officer Roland was also present, as were Governance Committee Chair Andrews, Finance Committee Chair Bieber, Strategic Planning Committee Chair Hale, Communications Committee Chair Shaw and other invited guests. Sections absent were New England, New York-Philadelphia, Montreal, Lower Mississippi Valley and South Africa.

- President Kreuger discussed his planned Section visits for the coming year and informed the Board that he would welcome invitations to visit Sections and Chapters. He plans to present on a topic related to Environmental Geology.
- Vice President Hilton discussed his planned involvement in coordinating the efforts of the existing operating committees (Strategic Planning, Governance, Section/Chapter Support, Advocacy, Students/Young Professionals, Licensure and Website). In addition, Vice President Hilton will oversee the formation of three new operating committees (Continuing Education, Education, and Advertising).
- The BOD voted to accept the auditor's report prepared by Anton, Collins, Mitchell, LLP for the Financial Statements, year ending June 30, 2008. Vice President Hilton noted that the Treasurer's Reserve Account has performed better than the index markets (DJIA and SP500), down only 12%. The account is also rebounding at a rate of approximately 8%, and continued growth is expected based on our conservative investment strategy which is consistent with prior BOD direction. The BOD also provided direction to reallocate approximately \$50,000 of cash held in the Treasurers Reserve to the Money Market Account.
- Vice President Hilton reported that AEG is currently operating at a \$26,000 surplus through the second quarter of 2009. This is based on AEG taking in approximately \$12,000 of additional revenue and expending \$14,000 less than budgeted.

- The 2009 Annual Meeting in South Lake Tahoe generated a surplus in excess of \$50,000. The final Annual Meeting Report will be presented at the next Board Meeting, held in May 2010.
- Chief Operating Officer Roland reported that AEG membership is down approximately 10% from 2008. In order to recruit new members and invigorate the membership, a membership drive is underway. **The top two AEG members that recruit the most new members by the end of the year will receive a free round trip ticket on Alaska Airways or a free round trip ticket on Southwest Airlines, respectively.** These two round trip tickets were donated by current AEG members in an effort to support the membership drive.
- AEG will focus on sponsors and exhibitors for next year. Exhibitors that commit to the 2010 Annual Meeting by the end of October 2009 will receive a \$100 discount.
- The AEG Special Publication “Living with Unstable Ground” is available for purchase and sale at the Section level. Contact COO Roland for more information.
- AEG will focus on retaining and recruiting sponsors and exhibitors for next year. 2009 Annual Meeting Exhibitors were contacted by CEO at the meeting and notified that if they commit to the 2010 Annual Meeting by the end of October 2009, they will receive a \$100 discount.
- AEG is looking for volunteers to staff the AEG booth at Geological Society of America (GSA) Conference in Portland, Oregon.
- Past President Molinari discussed his activities from the previous year. Key highlights were visits to Sections, Chapters, and Student Chapters, representing AEG at the GSA and ARMA Annual Meetings, and participating in two AGI Congressional Visit Days and associated meetings. He encouraged AEG members to participate in the AGI Congressional Visits. AEG is able to provide some funds to support member travel to Washington D.C.
- AEG Foundation BOD Member, Bob Tepel, presented the AEG Foundation Report. Key developments within the Foundation include:
 - The establishment of the new Beardsley-Kuper Fund that provides Scholarships for students attending summer field camps.
 - Goals of the Foundation for the coming year are to increase the percentage of the AEG Membership donating to the foundation; build sustainable funding; and expand planned giving.
 - The Foundation and AEG presented six Lemke Awards to students presenting research at the Annual Meeting.
- The BOD voted to remove the permanent restriction from the original donation made to establish the Marliave Fund. This was done at the request of the AEG Foundation Board to lessen the financial burden from additional reporting and accounting required for restricted funds.
- The BOD approved nominating Scott Burns for International Association of Engineering Geologists (IAEG) President in 2010.
- AEG supports Engineers Without Borders (EWB) and encourages members to contact EWB at the local Chapter level to learn about opportunities: www.ewb-usa.com.

- President Kreuger requested that names of potential members for the Executive Council be sent to Past President Molinari, Chair of the Nominations Committee.
- Advocacy Committee Chair Rick Kolb suggested the creation of an Outstanding Section Newsletter Award. He will begin work on a formal proposal and criteria to be presented at the 2010 Mid-Year BOD meeting.
- The Advertising and Exhibitors Committee is newly formed and will be appointing Chairs in the coming weeks.
- The Continuing Education Committee is newly formed and will be appointing Chairs in the coming weeks.
- A new Ad-Hoc Education Committee is newly formed and will be chaired by Keith Turner. This committee will focus on creating a Bodies of Knowledge Document for the Applied Geosciences. This Committee will most likely change their name to avoid confusion with the Continuing Education Committee.
- Strategic Planning Chair Paul Hale presented the Strategic Planning Report and informed the BOD that the focus of the Committee will be on completing individual projects in order to keep volunteers engaged and involved in the projects in which they are most interested.
- The BOD voted to approve and support the new Strategic Plan, available on the AEG Website. Members are encouraged to contact Paul Hale (phale@gfnet.com) if they are interested in volunteering to complete the goals of the plan.
- The Annual Meeting Committee will be focusing on expansion, including members of past and future Annual Meeting Planning Committees.
- Website Committee Chair Dale Andrews presented a mock-up of the new website and emphasized that the goal of the new website will be to streamline the information transfer process and provide a dynamic tool for the membership. Key features will include discussion forums, enhanced advertising capabilities, current news feeds, and events calendar.
- The Licensure Committee will continue as an Ad-Hoc committee pending the approval of their Charter at a future date. The Licensure Committee is currently Chaired by Charles Nestle, M-SC.
- The Student/Young Professional Support Committee (SYPSC) encouraged all Section Chairs to become members of "New Geologist" Facebook page. The Section Chairs and their members are invited to contact SYPSC if they are interested in participating in the Visiting Professionals Program.
- Section/Chapter Support Committee (S/CSC) Chair Kathy Troost informed the BOD that the Section Officer Handbook is complete and will be provided to Sections for their use. The intent is for the Handbook to be a living document that will be updated continually as Section responsibilities change.
- President Kreuger discussed the progress for the future Annual Meetings.
 - 2010 – Charleston, South Carolina – Meeting Chair Bridget Doyle provided a PowerPoint presentation of next year's Annual Meeting. The presentation is available to all Section Chairs for use at their meetings this year.

- 2011 – Anchorage, Alaska - AEG will be holding monthly conference calls with Meeting Chair Paul Metz to assist with the planning of this meeting.
 - 2012 – Salt Lake City, Utah – The new Hilton Hotel has been chosen as the venue for this meeting.
 - 2013 – Seattle, Washington – The meeting venue has been narrowed to two hotels and the Special Event will most likely be held at the Space Needle.
 - Annual Meeting event insurance was discussed.
- Formal Reports for the two Shlemon Conferences held in 2009 will be available shortly and the presentations from the conferences may be posted on-line. The Texas Section submitted a proposal for hosting a Shelmon Conference on Coastal Subsidence.
- AEG will continue work on the application process for the 2018 IAEG meeting. Intentions are to propose to host the meeting at a city on or near the West Coast.
- AEG is continuing to work with the Canadian Geotechnical Society to host a future International Landslide Conference.
- Past-President Molinari provided the BOD with an update on the Joint Task Force document that is being prepared by the AEG, the American Institute of Professional Geologists (AIPG), and the American Society of Civil Engineers – Geoinstitute (ASCE-GI). Based on the discussion at the forum held on Friday at the Annual Meeting, AEG plans to have further discussion with ASCE GI regarding basing the document on a more comprehensive and consistent Bodies of Knowledge (BOK) considering the existing ASCE (2008) document, existing documents from WA, OR and CA geologist licensing boards (and other states if available), and a draft document prepared by Keith Turner for an international consortium of engineering geology and geotechnical societies. Also plan to discuss whether other entities should be included in the process. If, after this discussion, the joint decision is to proceed with the revision process for the current draft document, then the committee specified by the BOD at the Mid-Year Board Meeting will be tasked with addressing the comments of the Association in a redline version of the draft document to be submitted to ASCE GI and AIPG. No firm revision process or schedule has been jointly determined at this time.
- The BOD approved the allocation of \$10,000 from AEG to the AEG Southern California Political Action Fund for the California Association of Professional Geologists (CAPG) to use in their efforts to ensure that California licensed geologists and the licensing program are supported by a State Board that will provide adequate representation.
- President Kreuger talked about the EC's discussions with the CAPG regarding an AEG in-kind donation of funds to distribute the Call to Action to the California licenses who are not AEG Members, and this effort would include a return envelope for donations. The EC has a spreadsheet of all California licensees, but the EC is not sure how many mailers would go out at this time. The consensus of the BOD was to support this action.
- The BOD approved the new Conflict of Interest Policy and Signature Form. All BOD representatives and Committee members are required to complete the form.
- The BOD approved the new Copyright Policy for all AEG publications and the Website.
- The BOD approved the minutes from the 2009 Mid-Year BOD meeting held in Seattle.
- Treasurer Bauer updated the BOD on the Geology of the Cities of the World Special Publication. The intention is to publish up to 80 papers in an additional volume in electronic format. The Cities Committee will be working with the Communications

Committee to establish a protocol for reviewing and publishing papers in the E&EG Journal as well.

- Secretary Morris presented a brief summary of the Electronic Publishing survey results. General consensus is that 70 percent of respondents were in favor of moving the Journal to electronic publishing, 20 percent were opposed, and 10 percent offered no firm opinion. The BOD authorized the Executive Council and Communications Committee to move *Environmental & Engineering Geoscience* to both electronic publishing with the understanding that print copies would be provided to members that request them for the 2010 calendar year.
- Communications Committee Chair Allen Shaw discussed the print media of AEG. He requested that Sections ask their members to submit technical papers or case studies to the Environmental & Engineering Geoscience Journal. There will be several papers in a future issue of the journal by speakers at the Shlemon Specialty Conference on Fault Rupture that was held in Southern California in February 2009. There is also the potential for a Special Publication from the conference proceedings and papers. Shaw would like to increase advertising in the AEG NEWS in order to add more color photos and enhance the quality of the publication.
- The BOD voted to approve the *Environmental & Engineering Geoscience* Editor's Report
- In addition to presenting the Finance Committee report, Finance Committee Chair, David Bieber, reminded the Board of its fiscal responsibilities and how the committee helps to meet those responsibilities. The BOD approved the nomination of James May and John Pfeiffer to the Finance Committee. The BOD also approved the Finance Committee Report as presented.
- During lunch each Section was asked to answer three questions: 1) What is working for your Section? 2) What activities need improvement in your Section? 3) What committee(s) are you on or would you like to be on? Answers will be posted with the minutes of the meeting.
- Treasurer Bauer presented the 2010 AEG Budget, which shows a small surplus. The format of the budget categories was reviewed and a brief synopsis of the year to date actual financial performance versus budget was discussed. The differences between the 2009 and proposed 2010 budget were presented. Following the presentation the BOD voted to approve the 2010 Budget as presented.
- The BOD voted to accept the Governance Committee (GC) Monitoring Report from the 2009 Mid-Year BOD Meeting in Seattle as presented.
- GC Chair Andrews addressed the topic of Sections using long-term proxies to represent them at BOD meetings. Several Sections that have not regularly attended BOD meetings have expressed interest in this idea and the GC will begin to evaluate the feasible alternatives to complete this task.
- The BOD voted to approve the nomination of Cynthia Palomares and Aubrey "Pete" Henley to the GC.
- The BOD voted to approve the Journalism Award criteria as presented.
- The BOD voted not to approve the Outstanding Environmental and Engineering Geology Award criteria as presented and this will be re-evaluated and a revised criteria presented for approval at the May 2010 BOD meeting.

- COO Roland requested the BOD inform her of individuals in their Sections that would be willing to serve as “Experts” on particular environmental and engineering geology subject areas. The “Experts” must be available to provide quick responses to requests for information from various media outlets and legislators’ staff.
- The BOD voted to approve the formation of the North Carolina State Student Chapter.
- Kathy Troost and Marie Marshall Garsjo led the BOD and guests in the S/CSC workshop. The workshop was intended to assist Sections and Chapters in becoming more active and productive. The workshop was formatted to allow different Section Chairs to interact in Break-Out Groups to discuss strengths and opportunity areas for improvement.
- The new Action Items were discussed with the BOD.
- The BOD supported the idea of conducting an Advertising and Sponsorship workshop at the Mid-Year BOD Meeting.
- The next BOD meeting will be held May 1st and 2nd, 2010 in St. Louis Missouri.

Chapter Meetings

Inland Empire:

For the latest information and updates, please visit <http://www.aegsc.org/chapters/inlandempire/>

Central Coast:

For the latest information and updates, please visit <http://www.aegsc.org/chapters/centralcoast/>

San Diego:

For the latest information and updates, please visit <http://www.aegsc.org/chapters/extremesocal/>

National Business Donation

- **Platinum - \$1,000**
- **Gold - \$500**
- **Silver - \$250**

Company name, address and contact information are presented in AEG News and section receives 10% of donation. A national donation does not yield a line in our local section newsletter.

Company & Employment Advertising Newsletter (includes SoCal website posting)

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▪ Business Card	\$10	\$100
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▪ ⅓ Page	\$30	\$300
▪ ½ Page	\$35	\$350
▪ Full Page	\$50	\$500

SoCal website posting only

\$20/month

* The deadline for submitting an advertisement for next month's newsletter is Friday, November 27th.

YEAR 2009 CONTRIBUTORS NEEDED

Contributions from corporations and individual members are greatly appreciated. Contributors will be listed in our newsletter throughout the year and can post their logo or business card in the newsletter if so desired. Please mail contributions made out to **AEG** to our section treasurer, Jon Relyea.

2010 MEMBERSHIP RENEWAL

For those of you who have not yet renewed **(the deadline was November 1)**, are unsure about your membership status, or did not receive your membership dues statement, please contact AEG Headquarters at www.aegweb.org. You can renew your membership online. Please update your membership if you wish to continue to receive future issues of the newsletter.

*****NOTICE: Proposed New AEG Publication*****

WHO'S WHO in SO CALIFORNIA ENGINEERING GEOLOGY
The Evolution of Engineering Geology in Southern California

Have you ever wondered "Whatever happened to___?" or "I've heard of ___, who is he?"

The undersigned have decided to try to prepare an internet publication with the above title, which will include biographies of engineering geologists in southern California. We would like you to share your biography (autobiography) with other EGs. If you have worked on an interesting project, others would like to know about it.

If we limit each autobiography to 3 pages of text, plus photos, this publication would be more than 1,000 pages long. Therefore, we plan to utilize a proposed new AEG Foundation internet website, where there is no limit to total pages, and we can use color photos. Also, this new website will be available for no-charge access, worldwide, thus spreading the word on the history and evolution of engineering geology, and southern California's immense contribution.

We suggest (not require) three criteria for inclusion: 1. That you are a CA licensed CEG; 2. That you are now or once were a member of AEG; 3. That you have enough years of professional experience to relate one or more significant projects you have worked on. We believe there are more than 250 such EGs in southern California. This will be an evolving internet site where new autobiographies can be added.

We will also include Memorial biographies of past notable geologists in southern California. So far, we have identified 30, including John Buwalda, Ian Campbell, Tom Dibblee, Rollin Eckis, Perry Ehlig, Richard Jahns, John Mann, F.L. Ransome, Charles Richter, Dottie & Marty Stout, Gene Waggoner. Biographies of 14 of these notable geologists were published for the recent AEG Annual Meeting, in "History of the Association's First 50 Years," available from AEG HQ, contact Julie Keaton or Becky Roland.

Here is a CHECKLIST FOR YOUR AUTOBIOGRAPHY:

Complete NAME, address, phone, email; BIRTH DATE and place; UNIVERSITY(s) attended, major(s), degree(s), year(s); MILITARY service; FIRMS/AGENCIES you worked for; up to 3 significant PROJECTS you worked on; possibly relate a serious or humorous INCIDENT; a MENTOR you may wish to acknowledge; professional SOCIETIES, HONORS, AWARDS; HOBBIES; up to 5 PUBLICATIONS; PHOTOS of yourself and of projects (scanned images preferred).

So, if you wish to be included in this new internet publication, prepare your autobiography and email it with photos to: allen@hatheway.net and in the Subject box, type: So. Cal. Geologist. Or mail it to Allen Hatheway, 10256 Stoltz Dr., Rolla, MO 65401. Please, no more than 3 pages of text, single-spaced, Times New Roman, 12 pt.

Please pass this notice on to those you may know who no longer get this Newsletter.

In the spirit of camaraderie, we thank you,

Richard Proctor
 Allen Hatheway
 David Rogers
 Larry Cann
 Bob Lynn

EMPLOYMENT OPPORTUNITIES & ADVERTISING

MASTERPIECE ROCKS & FOSSILS—*OPEN HOUSES* Unique and Museum-Quality Natural and Sculptured Rocks, Crystals and Minerals

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Santa Barbara
Museum of Natural History

Celebrating 90 years of inspiring a passion for the natural world

TOM DIBBLEE CELEBRATION LUNCHEON

Celebrating the scientific and historic legacy of Tom Dibblee and the completion of publishing the Dibblee Map Collection at the Santa Barbara Museum of Natural History.

Santa Barbara Museum of Natural History is hosting a luncheon on Saturday, November 21st to celebrate Tom Dibblee's legacy and the completion of publishing the Dibblee Map Collection.

Keynote speaker Dr. Tanya Atwater, retired UCSB Professor of Geosciences, will be presenting on the plate tectonic history of western North America and the San Andreas Fault system.

The lunch is \$50 per person and begins at 11:00 AM in Fleischmann Auditorium at the Museum.

For more information or to make a reservation please contact Nicole at 805-682-4711 ext. 110 or e-mail nketterer@sbnature2.org.

About the Dibblee Geological Foundation

The Dibblee Geological Foundation was created as a non-profit California education organization by those who admire the quality and quantity of Tom Dibblee's geologic mapping. The Foundation's mission was to help preserve the scientific, technical, educational and economic values of Dibblee's life work through timely publication. In 2002 the Santa Barbara Natural History Museum partnered with the Dibblee Geological Foundation to create the Dibblee Geology Center. The initial goal of the Dibblee Geology Center was to complete the publication of all of Tom Dibblee's 550 quadrangles as 419 maps. That goal has been reached.

About the Santa Barbara Museum of Natural History

Founded in 1916, the Santa Barbara Museum of Natural History was the first museum in Santa Barbara. For nearly 100 years, the Museum has collected, studied, preserved, and displayed the region's biological, anthropological, and archeological heritage to inspire a passion for the natural world. The Museum also owns and operates the Ty Warner Sea Center located on Stearns Wharf featuring the engaging, interactive exhibits where visitors can experience hands-on science and discover the wonders of the marine world.

If you would like to post an ad in the newsletter, please contact Stephen Varnell at svarnell@fugro.com. Advertisement rates are shown in the box below.

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<u>SoCal website posting only</u>		
\$20/month		

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