



The Official

# OREGON SECTION AEG NEWSLETTER

<http://www.aegoregon.org>

## January Meeting Details

Wednesday, January 8<sup>th</sup>

Location: Crowne Plaza Hotel

14811 Kruse Oaks Dr .

Lake Oswego, Oregon

6:00 pm Social

7:00 pm Dinner

8:00 pm Presentation

Dinner to be served

\$35 Dinner (Students Free)

Reservations:  
[kap@foundationengr.com](mailto:kap@foundationengr.com)  
with "AEG Reservation" in  
the subject line or 971-222-  
2047 by 12pm Mon. Jan. 6

There is a \$2 surcharge for  
those who do not reserve by  
the deadline

## Upcoming Meetings:

Feb 18<sup>th</sup> Brian Atwater  
Mar 18<sup>th</sup> Laura Maffei  
Apr 15<sup>th</sup> Jeff Coe  
May 20<sup>th</sup> Student Poster Night



## Joint AEG/ASCE Meeting

### Underwater Rock Blasting for the Columbia River Channel Improvements Project

Guest Speaker: Dr. Catherine Aimone-Martin

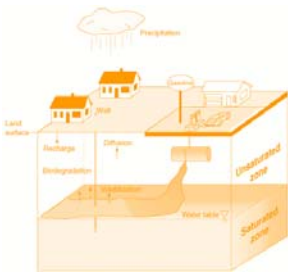
In 1989, the Columbia River Channel Improvements Project (CRCIP) began deepening the River from 40 to 43 ft to ensure safe passage of the new generation of larger, deep-draft vessels referred to as "New Panamax" cargo ships. The US Army Corps of Engineers (Corps) project was jointly sponsored by the ports of Portland and St. Helens, Oregon, and the ports of Longview, Kalama, Woodland and Vancouver, Washington. The project began in 1989 and was completed in November 2010 after excavating and dredging nearly three million cubic yards of material.



A one-mile stretch of the River near St. Helens, OR required underwater rock blasting that began November 2009 and was completed February 2010. This blasting time frame was selected to minimize the impact blasting might have on fish species listed as either threatened or endangered under the Endangered Species Act. Two blasts per day were conducted using State-of-the-art rock blasting methods for a total of 99 blasting events. A total of 300,000 cubic yards of material were fractured for removal by dredging.

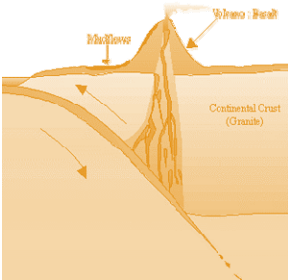
Deepening the Columbia River was an environmental achievement taking more than 20 years to plan and execute. The Corps, in consultation with many Federal and State fish and wildlife agencies, developed a work plan to minimize the potential for injury to fish and other animals of concern that may be present during blasting. Prior to, and during blasting, rigorous operational procedures were employed to detect possible marine mammals and schools of fish. A comprehensive underwater blast pressure monitoring program was designed to support blast design requirements. As such, no known fish kills of listed species occurred during the blasting project.

The presentation will highlight the planning and execution of the rock blasting phase of the CRCIP and include an overview of performance specifications for blasting and water pressure monitoring, drilling and blasting methods, and the design and implementation of the monitoring equipment.



## Bio: Dr. Catherine Aimone-Martin

Dr. Aimone-Martin is President of Aimone-Martin Associates in Socorro, New Mexico and Hawaii. She served as Professor of Mining, Civil and Explosive Engineering at the New Mexico Institute of Mining and Technology for 25 years and was a consultant to national labs in the areas of seismology and rock mechanics. Since returning to industry, she works as a blasting and vibration consultant, focusing on risk mitigation for rock blasting project. Dr. Aimone-Martin specializes in mine, quarry, construction and underwater blasting with emphasis on close-in blasting. Cathy has developed monitoring instrument systems for structure response at the World Trade Center and Second Avenue Subway (New York), the Panama Canal and for underwater blasting at several dam restoration, river and harbor deepening projects in Washington, Oregon, Florida, New Mexico, and Jamaica. Cathy was the 2012 recipient of the International Society of Explosive Engineers (ISEE) Distinguished Service Award



## Message from the Chair

Thanks to those that were able to make it to the joint OAEP and AEG December meeting. Jim Jackson presented a fascinating talk on the economics and practice of hydro fracturing for extraction of natural gas. Scott Burns was the guest of honor and meeting proceeds went to the new Scott Burns Scholarship fund...\$1,100 was raised! Thanks to the meeting sponsors AMEC, Apex Companies, Apex Laboratories, DGSI Slope Indicator, Pacific Soil and Water, Tonkon Torp LLP, and Terra Hydr for helping make it happen.

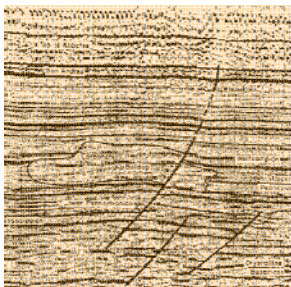
The AEG Oregon Section is very pleased to announce a revamped student travel grant for attending the 2014 AEG National Meeting in Scottsdale, Arizona (additional information can be found on Page 4). We are hoping to reach out to more students this year, raise awareness of AEG, and get some more students to the meeting. We'll be contacting academic departments to spread the word, but please feel free to distribute the announcement included in this newsletter to eligible students attending college in Oregon and Southern Idaho.

Hope to see you at the January joint AEG and ASCE meeting on January 8 with Dr. Catherine Aimone-Martin presenting on "Underwater Rock Blasting for the Columbia River Channel Improvements Project".

Happy Holidays!!

Darren Beckstrand, CEG  
Cornforth Consultants





## Membership News

It is AEG membership renewal time!

Please remember to renew your membership with AEG and as you are doing so, consider supporting one of the 18 worthy donation funds. In case you did not know, the Oregon Section dues of \$20 helps to keep our Section running and subsidizes the meeting costs for our attending students, as well as funding the student awards at the annual student meeting in the Spring. Thank you for your continued support and take just a few minutes to check out the many ongoing and new member services available to you throughout the year as an active AEG member. Looking to get more involved in AEG? There are 18 committees to check out. Also, the Forums tab has questions and answers on a variety of topics, or ask your own questions. Don't forget to renew today to keep your membership active all year long and to reduce costs of future reminders.

## Message from OSBGE

Kenneth Thiessen, a member of the Oregon State Board of Geologist Examiners, will present an overview of four Board documents being prepared for publication in 2014. These Oregon-specific documents are: Professional Practices Guidance, Geological Report Guidelines, Hydrogeology Report Guidelines, and Engineering Geology Report Guidelines. These four documents will be made available soon for comments from licensees - and your comments are encouraged to make them as relevant and useful as possible! These documents will be finalized and published following consideration of comments received.

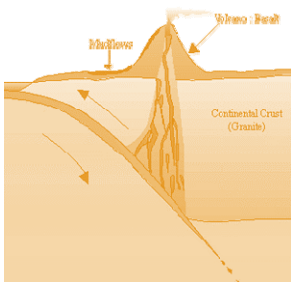
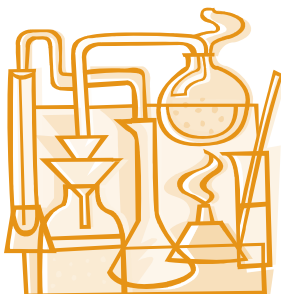


Photo of the Month: Drilling in central Idaho for a new rock cut  
Courtesy of Darren Beckstrand



# 2014 AEG Student Group Award

## Oregon Section of Association of Environmental & Engineering Geologists (AEG)

The Oregon Section of AEG wants to get students engaged in AEG by encouraging free student memberships, student chapter formation, travel to the national meeting, and fostering collaboration and competition.

### What is the Award?

The Oregon AEG Board plans to award \$1,000 to the student group that has the highest scoring proposal to get the most AEG student members to the annual meeting in Scottsdale, Arizona. The successful student group will use a combination of this award, AEG National student award(s), University student group support, and other possible funding opportunities. The Board does not specify the group's methods; only evaluates their approaches and results according to the scoring criteria.

### Who is Eligible?

To be eligible, each student would be an AEG student member (student membership is free) enrolled in a geology or earth sciences undergraduate or graduate degree program in Oregon or southern Idaho.

### How Do We Win?

Submit a complete application package and achieve the highest score based on the following scoring criteria.

- 50 points: 10 points per student that would be physically attending the meeting, up to 50 points. Each additional student (in excess of 5 students) that would be attending would be granted 5 points 'extra credit' (max 60 points). List students to be attending and current declared major and degree (BA, BS, MS, PhD). Provide the AEG Student Membership Number for each attendee.
- 20 points: Provide a budget, transportation, lodging, and meeting attendance plan. Describe group's plans for transportation to the national meeting, where they will stay, and how they plan to register for the meeting. Sharing vehicles, lodging, friend's and relative's homes, and free student registration opportunities are encouraged.
- 15 points: New or existing AEG Student Chapter. Applications to AEG National would be treated as an actual new chapter. Provide documentation of Student Chapter Status (AEG page printout or application package).
- 15 points: Utilization of additional outside funding or sponsorship support. Direct parent or relative funding will not receive points. Provide documentation of planned funding.
- Bonus 10 points: Provide up to two abstracts relevant to engineering or environmental geology submitted for presentation at the AEG National Meeting.

### Questions? Contact AEG Oregon:

[dbeckstrand@cornforthconsultants.com](mailto:dbeckstrand@cornforthconsultants.com)  
[AEGWeb.org](http://AEGWeb.org) | [AEGOregon.org](http://AEGOregon.org)



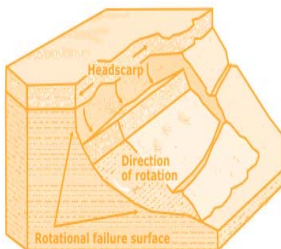
AEG Webpage



AEG National Mtg

### Then What?

Please submit packages in a single pdf document clearly organized following the criteria above with a brief cover letter describing the contents to [dbeckstrand@cornforthconsultants.com](mailto:dbeckstrand@cornforthconsultants.com) by **June 1, 2014**.



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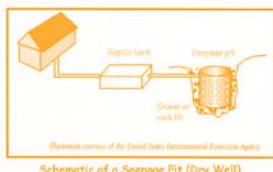
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Ralph Soule of GeoPotential is retiring! Tony Bartruff, who has worked for GeoPotential for the last three years, has demonstrated his ability and qualifications to plan and conduct future subsurface surveys and will be managing future day-to-day activities. Thank you to all of our clients over the years. [Tony.Bartruff@GeoPotential.biz](mailto:Tony.Bartruff@GeoPotential.biz) Cell: 360-921-7712



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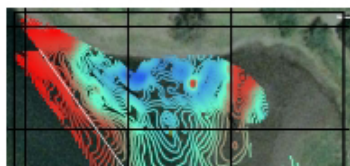
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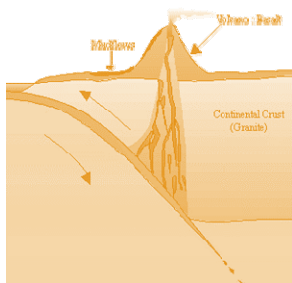
**GRAVITY  
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*"Keen observation is at  
least as necessary as  
penetrating analysis"*

*Karl Terzaghi*





1. Slope stabilisation, Switzerland
2. Slope stabilisation, UK
3. Rock slope stabilisation, Australia

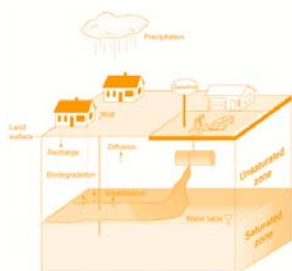


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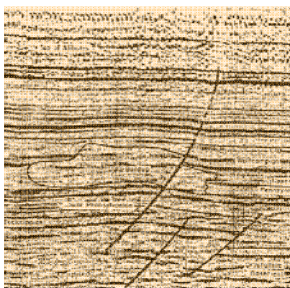
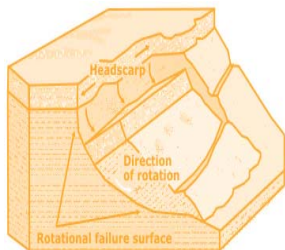
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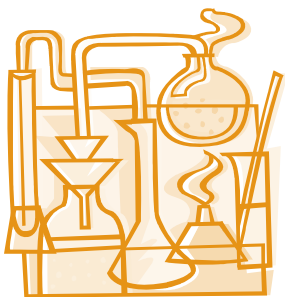
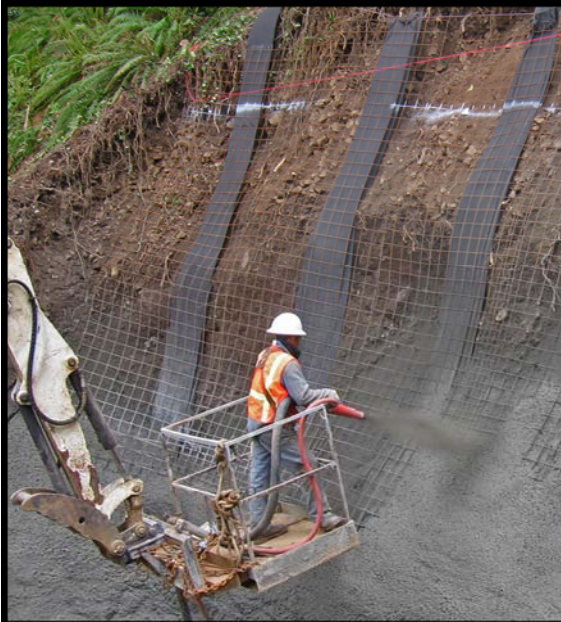


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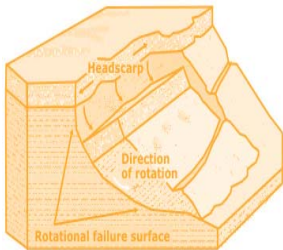
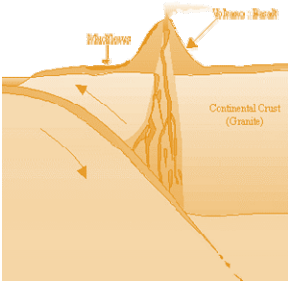
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least as necessary as  
penetrating analysis"*

*Karl Terzaghi*



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**National AEG webpage:**

**<http://aegweb.org>**



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Tiyana Casey

[tcasey@pdx.edu](mailto:tcasey@pdx.edu)



## The Oregon Section Newsletter

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