



The Official

OREGON SECTION AEG NEWSLETTER

December Meeting Details

Date: Tuesday, December 19

Location: Old Market Pub

6959 SW Multnomah

Portland, OR

6:00 pm Social

7:00 pm Dinner

8:00 pm Presentation

Dinner: Pizza and Salad

\$14 Dinner (\$7 Students)

Reservations:
mwegner@cornforthconsultants.com
with "AEG Reservation" in
the subject line or 971-222-
2047 by 4pm Thursday De-
cember 14th.

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

Upcoming Meetings:

- 1/16/07 AEG/ASCE Joint Meeting,
Kristie Hartfeil: Dam Safety
- 2/20/07 Chris Goldfinger: Record of
Cascadia Earthquakes
- 3/20/07 John Moylan: TBA
- 4/17/07 PSU Student Night
- 5/15/07 Terry West: TBA



December Meetings Guest Speaker is Brent Black from Cornforth Consultants-Presentation: Prospect Penstock Rockfall - When Mitigation Becomes the Hazard, Prospect, Oregon

The Prospect generating facility was constructed in 1927 and included two, 7-foot diameter, steel pipe penstocks to provide water to the powerhouse. The penstocks are 850 feet long with an elevation drop of 500 feet. The upper slopes surrounding the penstocks are nearly vertical but flatten to 35° as they approach the powerhouse adjacent to the Rogue River.

In 2003, increased rockfall activity threatened the penstocks and powerhouse. Site reconnaissance revealed that an old, heavily overgrown, timber-faced tieback wall was the culprit. Historical photographs showed that the 175-foot long, 30-foot tall wall was constructed concurrent with the

penstocks. Although no historical documentation was available, it was determined that the wall was built to form a fallout area and capture rockfall from the upper basalt cliff. Overtime, as the timbers rotted and broke apart, the wall backfill (2-foot to 6-inch diameter rock) was released causing the current rockfall problem.

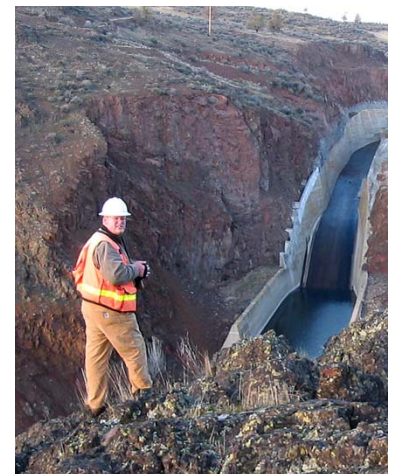
The wall was one of several innovative measures built to mitigate rockfall hazards; however, after 75-years, the rockfall mitigation

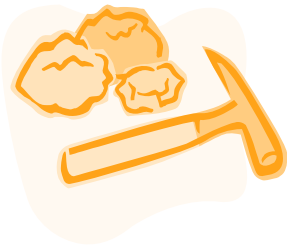
measure had become the hazard. New down slope rockfall mitigation measures were installed to protect the penstocks and powerhouse during the staged removal of the failing timber structure. Additionally, a new rockfall barrier fence was installed to replace the demolished structure.



Bio: Brent Black

Brent A. Black, CEG, LHG, RG, has 14 years of experience as an engineering geologist in the Pacific Northwest, much of this dedicated to rockfall and landslide mitigation projects for large transportation agencies, the federal government and private utility companies. As an Associate with Landslide Technology/Cornforth Consultants, Inc, he has managed numerous geotechnical investigation, design, and research projects in Oregon, Washington, Alaska, Montana, Idaho, California, and Ohio. He has a MS degree from Kent State University and a BS degree from West Virginia University. He is the past-chair for the Oregon Section of AEG.





Message From The Chair

Thank you to Craig Ware and Paul Trone of GeoDesign for the great presentation at the November meeting. The generation of methane at non-solid-waste permitted fill sites, also known as soil dump sites, is an interesting problem. It seemed that the level of effort required to control methane and build on these sites is similar to what it takes to build on an old sanitary

landfill. Continuing development of the region will make the former fill sites into commercially desirable properties. Like they said, if you want to find the projects of the future, just follow the dump trucks to the fill sites just outside the urban growth boundary.

The speaker for the December meeting will be Brent Black of Cornforth Consultants / Land-

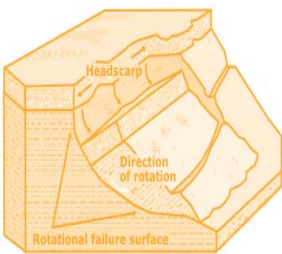
slide Technologies. He will present on rockfall mitigation. With a great topic and a venue that is always great for socializing, does anything more need to be said?

See you in December,

Michael Zimmerman, AEG
Oregon Section Chair

Planning Meeting for Spring '07 DOGAMI/USGS Landslide Symposium

You are encouraged to attend the first planning meeting for the DOGAMI/USGS Landslide Symposium to be held on 4/26/07. The first planning meeting will be held before the next ASCE geotechnical dinner meeting on December 6, 2006. The planning meeting will be led by Yumei Wang and Bill Burns in the Crowne Plaza Hotel bar (14811 Kruse Oaks Drive, Lake Oswego, 503-624-8400) from 5 pm to 6 pm on December 6 (immediately before the ASCE meeting). The symposium will discuss new tools and techniques for developing regional hazard maps and future risk management practices. NO RSVP is needed. Just show up!



Winter Quarter Classes at Portland State University

Winter Quarter Courses that go from January 8 - March 16 at Portland State University that might be of interest to AEG members:

- 1) Geol 510, Analysis of Landslides, Scott Burns, 4 credits, MW 16:40-18:30, Lab F 15:00-17:00, Cramer Hall S17
- 2) Geol 524, GIS for Natural Science, Dave Percy, 4 credits, TR 16:00-16:50, Lab T 17:00-20:00, Cramer Hall 1
- 3) Geol 543, Groundwater Geology, Ben Perkins, 4 credits, TR 16:40-18:30, Cramer Hall 69
- 4) Geog 507, Dendrochronology, K. Hadley, 4 credits, M 15:00-18:40, Cramer Hall 409
- 5) Geog 515, Soils and Land Use, M. Lafrenz, 4 credits, MWF 12:45-13:50, Cramer Hall 413
- 6) Geog 581, Satellite Image Processing, J. Duh, 4 credits, T 16:00-17:50, Cramer Hall 413
- 7) Geog 588, Geography Info System I: Intro, M. Mertens, 4 credits, W 17:30-20:30, Lab M 18:40-20:30, T 12:00-13:50, R 08-9:50, Cramer Hall 469
- 8) ESR 526, Watershed Biogeochemistry, J. Yeakley, 4 credits, TR 18:-19:50, Neuberger Hall 222
- 9) ESR 527, Environmental Impact Assessment, J. Maser, 4 credits, TR 14:00-15:50, Neuberger Hall 386
- 10) CE 510, Soil & Groundwater Restoration, G. Johnson, 4 credits, TR 14:00-15:50, Engineering Building 310
- 11) CE 510, River as a Physical System, D. Jay, 2 credits, T 12:00-13:50, Engineering Building 250
- 12) CE 542, In Situ Test-Soil, T. Smith, 4 credits, TR 14:00-15:50, Engineering Building 350
- 13) CE 544, Advanced Shallow Foundation Design, T. Smith, 4 credits, TR 18:00-19:50, Engineering Building 350
- 14) CE 573, Numerical Methods Environmental & Water Resources, S. Wells, 4 credits, MW 12:00-13:50, Engineering Building 350

Note on G510, Analysis of Landslides - Scott will be using Derrick Cornforth's excellent new book! The course will cover Investigations and Analysis (soil and groundwater measurements, field investigations, landslide terminology, slope stability analysis, earthquake induced slides) and Remediation and Prevention (earthworks, dewatering, erosion control, seepage barriers, retaining walls, liquefaction techniques, surface strengthening, hazard mapping).

For questions on any of these courses, call Scott Burns, PSU, 503-725-3389 or email him at burnss@pdx.edu





Lina Ma at Alice Ott Middle School, Portland



Earth Science Week Addenda 2006

We missed listing some folks who participated in the October Earth Science Week 2006 activities in the November AEG newsletter. If you were not listed in the November or herein, please let Andrew Harvey, Yumei Wang, or Bill Burns know about your event.

Talks were given in Vancouver by Evelyn Roeloffs of USGS Cascades Volcano Observatory, Natalie Richards with the U.S. Corps of Engineers on rotation to DOGAMI, and Ruth Wilmoth of Columbia Geotechnical.

Talks were given in the greater Portland area by Cindy Hovind of Terra Dolce, Marcy Boyer from Chinook Geo Services, Josh Theule, Karen Carroll, Scott Burns, PSU geology faculty and students, Lina Ma and Marina Drazba both from DOGAMI, and Sheree Stewart and Julie Harvey from the State Department of Environmental Quality.

Tom Kuper from Kuper Consulting was slated to speak to students in Sarah Hall's students at Baker Prairie Middle School in Canby.

Lina Ma of DOGAMI and Marina Drazba, student at PSU,

spoke to Kraig Sproles' 6th grade class at Alice Ott middle school in SE Portland. Lina gave a basic talk on what is geology, who studies it, why we study it, what do geologists do, steps to take to become a geologist, and her projects. Marina's talk was about her thesis work on LiDAR and identifying landslides with it. They also showed rocks, minerals, geologists' tools, and geologic maps.

The Oregon Science Teachers Association annual meeting took place in Roseburg during earth science week. The following school teachers, mostly from around the state, were provided ESW toolkits. The * indicates teachers who are interested in geologist speakers during the ESW in 2007.

*LaSalle High School, Milwaukie

*South Umpqua High School, Myrtle Creek

*McKay High School, Salem

*N Medford High School 10 - 12th grades

*Culver High School

*Jefferson Middle School

*Driftwood Elementary,

*Lowell Jr. High, Lowell

*Lane Middle School, Portland

*Vancouver Christian High School, Vancouver

*Schools in Winston, Roseburg, Beaverton, Albany and elsewhere

*Pathways Charter School (K-12), Benecia, CA

*OMSI, K-12 programs

Griffin Creek Elementary, Medford

Springfield High School, Springfield

Lincoln 5 and 6th grades, Oakland

Livingston Adventist Academy, Salem

Keizer Elementary 4-5th grade, Keizer

Woodburn High School, Woodburn

Bend High School, Bend

Oregon Episcopal, Portland

Sunset Middle School 8th grade

Scappoose School

Spring Break Quake School

Oregon Earth Science Museum

OHSU

OSU

AEG 2006: PSU Students, A Double Hitter in Boston!

Marina Drazba, president of the AEG Student Chapter at Portland State last year, won the Martin Stout Award this year. She received a very nice plaque and a check for \$1000 to do field work at the Boston AEG meeting.

Josh Theule, current president of the AEG Student Chapter at Portland State this year, won one of the Platinum Sponsor Awards for an outstanding student paper at the AEG Meeting in Boston. He received a check for \$250 and a nice certificate. Congratulations to both of them!

GSA 2006 : PSU Professor Wins Meritorious!

Congratulations to Scott Burns, professor at Portland State University, won the Meritorious Awards this year for his "tireless advocates for both the Engineering Geology Division of GSA and for the engineering geology profession." The Meritorious Awards are for outstanding service and are awarded by the Engineering Geology Division of the Geological Society of America.



*“Keen observation is at
least as necessary as
penetrating analysis”*

Karl Terzaghi



Oregon Academy of Sciences: This year the Oregon Academy of Sciences will be held in Monmouth at Western Oregon University on Saturday, February 24, 2007. We always have a half day of talks and posters in the geology division. Last year we had 24 talks and posters! We hope to have the same this year. If you are interested in submitting an abstract for the geology division, get the guidelines at the website (www.oas.pdx.edu) and submit the 250 word abstract to Scott Burns (burnss@pdx.edu) by January 15, 2007. If you cannot do an abstract, come to the meeting! It is cheap! Registration forms are at the website. Any questions, call Scott Burns, 503-725-3389.

Geological Society of America, Cordilleran Section meeting, Bellingham, WA: AEG is helping sponsor the GSA meeting in Bellingham this coming May 4-6, 2007. Regional GSA meetings are great places to present a paper. We are trying to have three days of applied papers at the meeting! We will have the names of the symposia and titles of papers in AEG newsletters in April along with the field trip titles. We hope to have lots available for you! If you are interested in submitting an abstract, you can do it at the GSA website (www.geosociety.org). Any questions, call Scott Burns, Vice President, Cordilleran Section, GSA (503-725-3389 or burnss@pdx.edu).

The Oregon Section Newsletter

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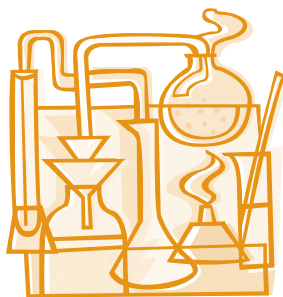
mail subscriptions are free. News items are invited and should be sent to: Bill Burns, OR Section AEG Newsletter Editor, Oregon Department of Geology, 800 NE Oregon Street, Portland, OR 97232, e-mail: bill.burns@dogami.state.or.us, phone (971) 673-1555. Electronic

media is preferred. Deadline for submittal is Friday three weeks before each meeting. Advertising: business card \$10/mo, \$100/yr; ¼ page \$30/mo, \$200/yr; ½ page \$35/mo, \$350/yr. Please notify Bill if you have a change to your email or mailing address.

The Oregon Section is also on the web at <http://www.aegoregon.org>
National AEG webpage: <http://aegweb.org>

Thanks For Supporting AEG !


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Section Officers & Committee Chairs



Chair:
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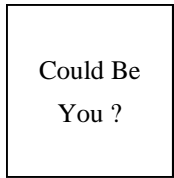
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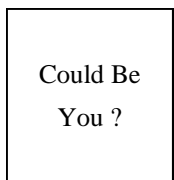
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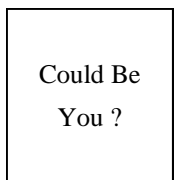
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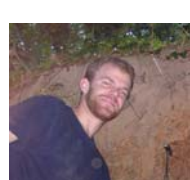
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dent:
Josh Theule

Photo of the Month



The November photo is from John D. Martin, Principal Geologist/Director of Operations at CES. The photos are of the Champion Mine in the Umpqua National Forest east of Cottage Grove, which is part of the Bohemia mining district, where there are still many active claims and mines. As a geologist with CES, John is working on this project with the USFS to clean up (CERCLA Removal Action) this former gold mine. The waste material and surface water have metals contamination (e.g., arsenic, cadmium). The project will take a couple years and will include removing the ponds, consolidating the waste material and covering it including a 6-inch capillary barrier, filter fabric, and 2-foot soil cover; re-contouring the site to more natural topography; a constructed wetland and settling pond system for mine drainage (Champion Creek begins as seep from the 1200 Adit); and, possibly, a plug in the mine to reduce acid mine drainage.

For more information on projects from Cascade Earth Sciences (CES), visit their web site at: <http://www.cascade-earth.com>

To submit a photo, please email the picture in a JPEG or TIF format to bill.burns@dogami.state.or.us. Also include a short paragraph describing the photo and project.