



Serving Professionals in Engineering, Environmental,  
and Ground Water Geology

OREGON SECTION

# NEWSLETTER

The Official Newsletter of the Oregon Section Association of Engineering Geologists

April, 2002

VOLUME 02, NUMBER 4

## APRIL MEETING:

### AEG STUDENT NIGHT *Hosted by the Portland State AEG Student Chapter*

Format: **“Student posters featuring undergraduate  
and graduate work/research.”**

Date: **Thursday, April 25, 2002  
(please note this is the 4<sup>th</sup> Thursday of the month)**

Times: 6:00 PM Social hour  
7:00 PM Dinner  
8:00 PM Poster Session Presentations  
(Posters on view for the 3-hour duration)

Where: Smith Hall on the PSU campus, Rm. 327-8 (see note on next page)

Directions: A map, driving instructions, and parking instructions will be available at  
<http://www.geol.pdx.edu/People/SFB/AEG/default.htm>

Menu: Three-cheese lasagna, green salad, mixed vegetables, rolls, tea/coffee, and cookies. Keg Beer will be free. And bottled beer will be available at a host bar.

Cost: \$13/ \$6.50 for students

**Reservations:** Call URS at: 503-222-7200 by **4 PM, Monday (4/22/02)** to make a meal reservation  
**“A reservation made is a reservation paid.”** Please call to cancel if you can not attend. Thank you!

# AEG STUDENT NIGHT

## **DIRECTIONS:**

**Smith Memorial Hall, Rooms 327-8** on the campus of Portland State University in downtown Portland. Smith is located along the South Park Blocks at SW Broadway with cross streets SW Montgomery and SW Harrison.

**Parking is available for free in Parking Structure I**, which is entered from SW 6<sup>th</sup> Ave. after crossing SW Hall and before SW Harrison. Tell the parking attendant that you are with AEG and give them your name. For alternative transportation, the Tri-Met Transit Mall runs along SW 5th and SW 6<sup>th</sup> and almost all buses pass within two blocks of Smith Memorial Center.

## **Here are just some of the student posters that will be at the meeting:**

Channel Morphology on Taylor Glacier, Taylor Valley, Antarctica --Robin Johnston

Variation in Microbial Adhesion to Glass Substrates: Queen's Laundry Spring, Yellowstone National Park --Charlotte Berghoffer

A call for the Re-examination of the Earth's Uranium and Thorium Abundances --Josh Mathisen

Origin of Gray Paleosol Layers in Pleistocene Dune Sheet, Lincoln City, OR --G. Anthony Ordway

Cinnabar- A Sulfide Mineral --Chris Hofgren

Segregation Structures in Diktytaxitic Basalt Flows of NE Oregon --Susan Wacaster

Groundwater in Puerto Rico --Eve Llewellyn

Geology and Groundwater Flow in the Vicinity of Sandy, OR: An Initial Conceptual Model --Ericka Olsen

Inundation-area Statistics for Debris Flows and Rock Avalanches --Julie Griswold

Textural and Compositional Zoning of Plagioclase Phenocrysts of the Current Eruption at Arenal Volcano, Costa Rica --Meghan Lunney

Localized glacier deformation associated with filling and draining of a glacier-dammed lake and implications for outburst flood hydraulics --Michelle Cunico

The Geometry and Hydraulics of Englacial conduits, Storglaciären, Sweden --Sara Frodin  
Geology of Hawaii --Tim Youngberg

# ***Message from the Chair (April 2002)***

## **April Dinner Meeting**

Our April section meeting will be held on April 25, the 4<sup>th</sup> Thursday of the month rather than our usual 3<sup>rd</sup> Thursday. This is a special meeting put together by the AEG Student Chapter of Portland State University. They have arranged a great dinner, a good location, free parking, and many interesting poster presentations. We'll even have a free keg of beer. See the full details in this newsletter and call in your reservations to URS. I expect a big attendance at this special event and a lot of support for the PSU chapter. I especially encourage any firms who may consider hiring additional staff to send a representative and talk to the students. Congratulations in advance to all those who worked hard on this and those who will have presentations.

## **March's Meeting and Presentation by Brian Duevel**

Brian Duevel with the geotechnical engineering group at URS presented a great talk at the March dinner meeting at Billy Reeds. He discussed the construction of Upper Pony Creek Dam in southwestern Oregon. The dam is used by the Coos Bay-North Bend Water Board to provide municipal water supply for the Coos Bay and North Bend areas. The original dam was founded on alluvium overlying sandstone bedrock. Some of the design complications included leaving the existing dam in place during construction of the new dam and precise concrete dental work to prepare the new dam foundation. The new dam increased the storage capacity to 6,200 acre-feet and met current seismic design criteria.

## **AEG Board of Directors Mid-Year Meeting**

I'll be attending the AEG Board mid-year meeting in Montreal on April 20 – 21, 2002. We have several important issues to discuss and vote on, including a proposed change to delete the Associate Member Class, a proposal to drop the requirement that Member applicants be sponsored by an active Member, deletion of the five year minimum experience requirement for becoming a Member, and allowing the establishment of Chapters within Sections. If you have any issues, concerns, or recommendations on these proposals to bring before the Board, please contact me before I leave on April 19<sup>th</sup>. Input from any AEG member is appreciated.

## **Vote for Oregon Section Officers for 2003 –2003**

This is the time of year that we have the opportunity to vote on our Section officers for the next year. The ballot in this issue of the newsletter has the current section officers who have generously offered their time to continue to the next level of section leadership. Brent Black of Cornforth Consultants is interested in increasing his involvement with AEG as a candidate for next year's Treasurer. Ruth Wilmoth, Warren Krager, and Rowland French are on the ballot as current officers who will advance under our usual election process. Please vote and send your ballot to Warren Krager by June 1, 2002. As always, write-in votes are welcome.

## **The 2002 GSA Cordilleran Section Meeting in Corvallis**

The registration deadline has passed (April 12) for the GSA Cordilleran Section Meeting in Corvallis. But you can still register on-site during the meeting. On-site registration is available at the LaSalle Stewart Center starting at 4 pm Sunday May 12. The meeting sessions are from May 13 to 15, with field trips before, during, and after the sessions.

Undergraduate and graduate students can sign up for the Roy J. Shlemon Workshop (free - lunch included) at the Cordilleran Section Meeting. Eat lunch with practicing applied geoscientists to find out what it takes to get a job in today's market. This informal interactive workshop will help you deal with real life issues you'll face beyond graduation. The workshop includes two luncheon sessions as show below:

**ROY J. SHLEMON MENTOR WORKSHOP**. Tuesday, May 14, 2002, 11:30 a.m. to 1:00 p.m. and Wednesday, May 15, 11:30 a.m. to 2:00 p.m. CH2M Hill Alumni Center, Room 111A Oregon State University.

**TOPIC: ENGINEERING GEOLOGY - THE CONSULTANT'S ROLE.** Hosted by Tom and Dorian Kuper of Kuper Consulting LLC, engineering geologists who have worked for numerous companies over a 25-year period and have worked together for 15 years. They consult to private companies in the land development and mining sectors. Join them on Tuesday, May 14 in an interactive roundtable discussion of career-related topics. For the following day's program on

May 15, join the Kupers for a second lunch en-route to visit engineering geology projects at nearby quarry sites. Lunch is provided each day. For more information, contact Karlon Blythe at

<mailto:kblythe@geosociety.org>. Limit: 25 the first day; limit 12 the second day with preference given to those attending the first day's program. Free. Program registration required to guarantee your seat. Meeting registration is not required to attend only this workshop. Register now, as space in the workshop is limited.

I look forward to seeing you at our special student chapter meeting at PSU on April 25.

Drew Harvey  
AEG Oregon Section Chair

## **Cordilleran Section, Geological Society of America**

*GSA in Corvallis: May 13-15, 2002*

Below is a schedule for the GSA in Corvallis. AEG is one of the sponsors and the sessions we are co-sponsoring are highlighted below. To get a complete listing of the each of the talks in each session, go to the GSA website ([www.geosociety.org](http://www.geosociety.org)) and click on meetings/Cordilleran section/technical program. You can also register there too. It is past the date for "early" registration, but you can do the "onsite" registration now. You can still sign up for field trips (many are almost full!) See you in Corvallis. PSU will be having a van going down each day from Portland if someone needs a ride. Contact Scott Burns (503-725-3389) for more information. Many thanks to all of you who are presenting papers or leading field trips.

Monday Morning, May 13, 2002: (8:00 AM – noon)

- 1) Volcanology, Volcanism, Volcanic Rocks
- 2) Unraveling the Tertiary Stratigraphy and Structure of the Pacific Northwest and Its Implications for Hydrocarbon Occurrence and Underground Gas Storage: In Honor of Alan and Wendy Niem
- 3) Coastal Paleodune Landscapes (**AEG Sponsored**)
- 4) Terrestrial Paleontology of the Pacific Northwest
- 5) Natural Hazard Monitoring Systems (**AEG Sponsored**)
- 6) Innovations in Earth Science Education: Dotti Stout Memorial Session
- 7) Volcanic Arcs and Ores: Links of Magmatic Gases with Porphyry Copper and Epithermal Gold Deposits

Monday Afternoon, May 13, 2002 (1:30-5:30 PM)

- 1) Active Tectonics of the Pacific Rim
- 2) Contributions to Tectonics and Fission-Track Dating in the Pacific Northwest: In Honor of Joe Vance
- 3) Presenting Geology to the Public in National and State Parks and Outdoor Classrooms
- 4) Jurassic Tectonics and Magmatism in Outboard Terranes from Northern California to Washington
- 5) Catastrophic Glacial Outburst Floods in the Pacific Northwest (**AEG Sponsored**)
- 6) Undergraduate Research Papers and Posters
- 7) Natural Hazard Monitoring and Warning Systems II (**AEG Sponsored**)

Tuesday Morning, May 14, 2002 (8:00 AM – noon)

- 1) Paleogeodesy: Unraveling Displacement Fields in Magmatic Arcs: In Honor of Othmar Tobisch
- 2) Architecture of Cascadia: A Synthesis of the New Geologic and Geophysical Mapping in the Forearc
- 3) Debris Flows: Theory and Practice I (**AEG Sponsored**)
- 4) Active Tectonics of Cascadia: Geodesy and Great Earthquakes
- 5) Pacific Northwest Geology East of the Cascades: In Honor of George Walker
- 6) Invertebrate Paleontology: In Honor of Ellen Moore
- 7) Geophysics and Biochemistry of Gas Hydrates and Methane Seeps on the Northeastern Pacific Margin

Tuesday Afternoon, May 14, 2002: (1:30-5:30 PM)

- 1) Applications of Geographic Information Systems in Geology and Geophysics
- 2) Klamath Mountains, Sierra Nevada, and Great Basin Tectonics and Stratigraphy
- 3) Quaternary Geology and Paleoclimate
- 4) Paleogeodesy: Unraveling Displacement Fields in Magmatic Arcs II
- 5) Pattern and Rates of Long Term Deformation Across the Washington Segment of the Cascadia Forearc High
- 6) Debris Flows: Theory and Practice II (**AEG Sponsored**)
- 7) Pacific Northwest Geology East of the Cascades II
- 8) Impact Structures

Wednesday Morning, May 15, 2002, (8:00 AM – noon)

- 1) Geology and Public Policy (**AEG Sponsored**)
- 2) Active Faults of California
- 3) The Evolving Pacific Northwest Landscape: Geomorphic and Ecologic Controls, Constraints, and Conundrums in the Quaternary
- 4) Hazards and Risks from Cascade Volcanoes (**AEG Sponsored**)
- 5) Decadal Symposium on the Geology of Washington I: in Honor of Rowland W. Tabor
- 6) Phanerozoic Subduction-related Magmatism in Mexico: Comparison with the Rest of the Cordillera
- 7) Engineering Case Histories of Landslides (**AEG Sponsored**)
- 8) Communicating Science: Lessons from the Klamath Basin

Wednesday Afternoon, May 15, 2002 ( 1:30-5:30 PM)

- 1) Active Faults in California
- 2) Alaskan Tectonics, Structure, and Stratigraphy
- 3) Constraints on Cretaceous Paleogeography of the Western Cordilleran Margin
- 4) Geology and Hydrology of the Willamette Basin, Oregon (**AEG Sponsored**)
- 5) Hazards and Risk from Cascade Volcanoes (**AEG Sponsored**)
- 6) Engineering Geology Case Histories of Landslides (**AEG Sponsored**)
- 7) Active Tectonics of Cascadia: Deformation in the North American Plate
- 8) Decadal Symposium on the Geology of Washington II
- 9) Groundwater and Surface Water Hydrology (**AEG Sponsored**)
- 10) Surface Effects of the Nisqually, Washington Earthquake of February 28, 2001 (AEG Sponsored)

Field Trips:

- 1) Fluvial Record of Plate Boundary Deformation in the Olympic Mountains, May 9-12, 2002, \$315
- 2) Geology and Geomorphology of the Lower Deschutes River Canyon, Oregon, May 10-12, 2002, \$410, rafting trip
- 3) Hydrogeology of the Upper Deschutes Basin, Central Oregon: A Young Basin Adjacent to the Cascade Volcanic Arc, May 10-12, 2002, \$115
- 4) North Central Oregon Cascade Margin: Exploring Petrologic and Tectonic Intimacy in a Propagating Intra-Arc Rift, May 11-12, 2002, \$95
- 5) Pleistocene and Holocene Dunal Landscapes of the Central Oregon Coast, Newport to Florence, May 11-12, 2002, \$95
- 6) Landslides of Kelso, Washington and Portland, Oregon, May 12, 2002, \$35, (AEG Sponsored)
- 7) Miocene Molluscan Fossils and Stratigraphy, Newport, Oregon, May 12, 2002, \$35
- 8) Geomorphology and Hydrology of the H.J. Andrews Experimental Forest, Blue River, Oregon, May 12, 2002, \$35
- 9) Paleobotanical Record of Eocene-Oligocene Climate and Vegetational Change Near Eugene, Oregon, May 13, 2002, \$35
- 10) Geology of the Vineyards in the Willamette Valley, Oregon, May 13, 2002, \$30
- 11) Bimodal Volcanism and Tectonism of the High Lava Plains, Oregon, May 15-17, 2002, \$190
- 12) Josephine and Coast Range Ophiolites, Oregon and California, May 15-18, 2002, \$385
- 13) Columbia River Gorge Landslides, May 16, 2002, \$35

## ELECTION OF OFFICERS

## AEG OREGON SECTION 2002-2003

Please indicate your choice for the following offices. This ballot should be mailed to: Warren Krager,, Oregon Section AEG Secretary, Kleinfelder, 15050 Koll Parkway, Suite L, Beaverton, OR, 97006-6028 . Please return by June 1, 2002. The new slate of officers will be announced at the September meeting.

### CHAIRPERSON

**Ruth Wilmoth:**

Ruth served the past year as Chair-Elect. She has been active with the Oregon Section of AEG since 1994, and before that was a member-at-large while living in Hawaii where there is no section. Ruth received her BA in Geology from the University of California at Berkeley and her MS in Geology and Geophysics from the University of Hawaii at Manoa. Currently she is the Engineering Geologist and President of Columbia Geotechnical, the company she started in 1995, located in Vancouver.

\_\_\_\_\_ (write in)

### CHAIR-ELECT

**Warren Krager:**

Warren has been a member of the Oregon Section of AEG since 1990 and was an associate member for several years prior. He has served as Secretary for the past year. Warren received a B.S. in Geology from Oregon State University in 1985, and has approximately 16 years of consulting geology and engineering geology experience in the Pacific Northwest. He is currently the senior engineering geologist in Kleinfelder's geotechnical group.

\_\_\_\_\_ (write in)

### SECRETARY

**Rowland French:**

Rowland has devoted over 20 years to applying geophysical techniques to projects in engineering geology, geotechnical engineering, and groundwater resources. He has been active in the Oregon Section of AEG since he moved to Oregon in 1988 and has attended several AEG national meetings as an exhibitor. For the past year he served as Treasurer of the Oregon Section. Rowland received his B.S. in Physics from Dartmouth College and his PhD in Geology from the University of Michigan. Since 1988, Rowland has worked at Northwest Geophysical Associates, Inc. in Corvallis, where he is currently Vice President and manager of geophysical services.

\_\_\_\_\_ (write in)

### TREASURER

**Brent Black:**

*Brent has been active with the Oregon Section of AEG since 1993, and before that was a member and president of the Kent State University AEG student chapter in 1990-1992. Brent received his B.S. in Geology from West Virginia University and his M.S. in Engineering Geology from Kent State University. He is currently an associate engineering geologist with Cornforth Consultants and would like to increase his involvement with AEG by participating as a local officer.*

\_\_\_\_\_ (write in)

# **SPRING SEMINAR SERIES, 2002**

## **Dept. of Geology Portland State University**

**All seminars in Cramer Hall S17; 3:30 - 4:30 PM**

**April 10, 2002**

### **“The Great Diversity in the Geological Wonders of Oregon”**

Scott Burns, Professor of Geology, PSU

*April 24, 2002                    “From Mantle to Atmosphere: Magma  
Degassing and Explosive Volcanic Eruptions”*

Paul Wallace, Assistant Professor, Dept. of  
Geological Sciences, University of Oregon

**May 8, 2002**

### **“AMS Dating of C-14: from Kennewick Man To the Shroud of Turin to Meteorites”**

A.J. Timothy Jull, Professor, Dept. of  
Geosciences, University of Arizona

**May 22, 2002**

### **“Assessing Platonic Views of the Soil Landscapes in the Mediterranean”**

Jay Noller, Assistant Professor, Dept. of  
Crop and Soil Science, Oregon State Univ.

*May 29, 2002                    Thesis Proposals*

**June 5, 2002**

### **“Using GIS in Hydrology”**

Heejun Chang, Assistant Professor,  
Dept. of Geography, Portland State Univ.

**(For information contact: Scott Burns, 725-3389 or [burnss@pdx.edu](mailto:burnss@pdx.edu)**

# *Short News Items*

Winetasting and Geology: The PSU Geology Department is doing a fund raiser on April 27, 2002 (Saturday) to learn the geology of the wine country of the northern Willamette Valley and to discuss the debate about whether the best wines are produced on volcanic soils (Jory soils) or marine sediments (Willakenzie soils). We will visit 3-4 wineries. Cost is \$40 and leaves from PSU at 9:00 AM. Call Scott Burns for details (503-725-3389).

Green Briefcases: Remember those green briefcase bags that we have left over from the Seattle annual meeting? Well, now is the time to pick one or more up for \$5.00 each. That's less than you spend for lunch! People that already have one say "they were worth the old price of \$10.00 and I am going to buy another!" Get one before they are all gone!!

E-Mail "Newsletter:" PLEASE TAKE THE TIME TO SWICHT TO THE E-MAIL NEWSLTTER IF YOU CAN This saves the Section money and makes the editor's job much easier please send me your E – mail address to Dave Michael at [dmichael@odf.state.or.us](mailto:dmichael@odf.state.or.us)

AEG Homepage: check it out: <http://www.aegweb.org>

The Board of Geologist Examiners: 707 13<sup>th</sup>. St. SE, Suite 275 Salem, OR, 97301  
Phone (503) 566-2837, Fax (503) 362-6393 e-mail: [osbge@open.org](mailto:osbge@open.org) [www.osbge.org](http://www.osbge.org) website for board; deadline for submitting papers for next exam is January 4; next CEG and ASBOG exams are on March 15 contact **Susanna Knight**, Administrator for assistance with Board issues.

If you have NEWS items that you would like to include, please contact or E-mail Dave Michael – newsletter editor at [dmichael@odf.state.or.us](mailto:dmichael@odf.state.or.us)

Oregon Section Book: The 1998 publication "Environmental, Groundwater And Engineering Geology Applications from Oregon" Edited by Scott Burns with articles by many Oregon Section members is available from Nature of the Northwest (DOGAMI Book Store –800 NE Oregon St.), Powell's Book Store, Portland State Book Store (corner 5<sup>th</sup> and Mill), Amazon.com

"Seeking Old AEG Annual Directories". If anybody has any pre-1997 AEG annual directories, please email George Freitag at [gfreitag@gri.com](mailto:gfreitag@gri.com). George is trying to compile a list of old Oregon Section officers." George Freitag, CEG GRI Geotechnical and Environmental Consultants [gfreitag@gri.com](mailto:gfreitag@gri.com) Phone (503) 641-3478 Fax: (503) 644-8034

# AEG "Oregon Section" - OFFICERS

Area codes are 503 unless noted:

Position	Name	Daytime	Home	FAX
Chair	<i>Andrew Harvey</i> e-mail: aharvey@kleinfelder.com	644-9447	617-9486	643-1905
Chair Elect	<i>Ruth Wilmoth</i> (360) 944-7397 e-mail cgivanc@aol.com	(360) 944-6985		
Secretary	<i>Warren Krager</i> wkrager@kleinfelder.com	644-9447	684-4902	643-1905
Treasurer	<i>Rowland French</i> (541) 757-7231 e-mail rowland@nga.com		(541) 757-7331	
Past Chair	<i>Charlie Hammond</i> 452-1100 e-mail: chammond@cornforthconsultants.com	274-1437		452-1528
Program Chairs	<i>Jason Hinkle</i> (503)9457468 Jhinkle@odf.state.or.us		(503) 6146-2815	
	<i>Tim Richter</i> 948-7213 Tim_richter@urscorp.com			222-4292
Membership	<i>Tim Blackwood</i> 684-3460 e-mail: tblackwood@carlsontesting.com	631-7996		670-9147
Field Trips	<i>Tom Kuper</i> Dkuper@cybcon.com		638-9722	638-9723
Section History	<i>George Freitag</i> Gfreitag@gri.com		641-3478	644-8034

## **MEMBERSHIP**

For application forms for Membership in AEG (Member, Associate, Affiliate, or Student), call Tim Blackwood the membership chair at (503) 684-3460 (w). He will also have copies at the monthly meetings. Membership is on a calendar year basis. If you are an AEG member, headquarters will also collect our Oregon Section dues of \$10, which just covers our newsletter costs. If you would like to subscribe to the local newsletter (comes out 9 times a year) without being an AEG member, fill out the form below and mail to Dave Michael. Note: the following form is only for people and organizations that wish to subscribe to the Oregon AEG Newsletter without being members of AEG.

\*\*\*\*\*

**APPLICATION FOR OREGON SECTION, AEG "NEWSLETTER MAILINGLIST ONLY":**

NAME \_\_\_\_\_

AFFILIATION: \_\_\_\_\_

MAILING ADDRESS: \_\_\_\_\_

TELEPHONE: \_\_\_\_\_

Mail form and \$10 to Dave Michael c/o ODF NWOA, 801 Gales Creek Rd. Forest Grove OR 97116

# ***ANNOUNCEMENT OF OUR NEXT MEETING***

***April. 25, 2002***

***AEG***

*Dave Michael, Editor  
Oregon Section, AEG  
c/o ODF NWOA  
801 Gales Creek Rd.  
Forest Grove, OR 97116*