

Serving Professionals in Engineering, Environmental, and Ground Water Geology

**OREGON SECTION** 

# **NEWSLETTER**

The Official Newsletter of the Oregon Section Association of Engineering Geologists

March, 2002 VOLUME 02, NUMBER 3

### **MARCH MEETING:**

Speaker: Bryan Duevel

& Greg Rollins

Talk: "Construction of Upper Pony Creek Dam"

Date: Thursday, Mar. 21, 2002

Times: 6:00 PM Social hour

7:00 PM Dinner 8:00 PM Presentation

Where: **Billy Reed's** 

located at The Standard Dairy at:

2808 NE MLK Jr. Blvd one block North of Knott St.

for specific directions see: http://www.billyreeds.com/directions.html

Menu: Chicken Breast with prosciutto and Provelone Cheese or

Roast Pork Loin with brown rice, goat cheese, and toasted Pine nuts or

Roast Veggie Pasta, Fresh basil and caramelized onions in a Cardonnay butter sauce

Buffet: NW mixed greens, served with diced apples, rassins, hazelnuts, and

Champagne Dijon dressing.

Includes coffee, hot or iced tea, lemonade, and assorted sodas. Beers and pirchers are purchased at the main bar (no host bar)

**Reservations:.** Call URS at: 503-222-7200 by **4 PM, Monday (3/18/02)** request preference on dinner **"A reservation made is a reservation paid."** Please call to cancel if you can not attend. Thank you!

#### Construction of Upper Pony Creek Dam

## **ABSTRACT**

The Coos Bay North Bend Water Board provides municipal water supply for the Coos Bay and North Bend areas in southwestern Oregon. Their primary source of water was the 2,100 acre-foot reservoir impounded by Upper Pony Creek Dam, constructed in 1951. In 1998, URS Corporation began the investigation and design of alternatives to increase the storage of the reservoir. After consideration of several options, a design consisting of constructing a new, higher, earthfill dam immediately downstream of the original dam was developed. The new dam increased the reservoir storage to about 6,200 acre-feet and meets current seismic stability and spillway capacity criteria.

Construction of the dam began in April 2000. The zoned earthfill embankment has a structural height of 97 feet and contains approximately 400,000 cubic yards of material. The dam is founded on sandstone bedrock, which required up to 30 feet of excavation below original grades. Among the most interesting aspects of construction was the requirement for the existing dam to remain in service throughout the duration of the project. This condition presented a number of challenges, particularly during the excavation of the alluvium at the toe of the existing dam. The dam was successfully completed in November 2001. Total project costs were approximately \$10,000,000.

## **BIO**

Bryan Duevel has been a part of the geotechnical engineering staff at URS (and formerly Woodward-Clyde) for 4 years. Bryan has a Bachelors Degree in GeoEngineering from the University of Minnesota and a Masters Degree in Geological Engineering from the University of Wisconsin. His graduate studies focused on the engineering properties of the host rock of the Underground Research Laboratory (URL), Canada's version of Yucca Mountain. Bryan has been involved with the Upper Pony Creek Dam project since the initial site exploration began in 1998. He performed field engineering duties for the duration of the project construction from 2000-2001. Besides Upper Pony Creek Dam, Bryan has been involved with a number of unique projects throughout the Pacific Northwest, including the Sunset Tunnel Lining Assessment and the Hood River – Mosier Rock Catchment Structure.

## Message from the Chair (March 2002)

#### February's Joint Meeting with the ASCE Oregon Section Geotechnical Engineering Group

Dr. Evert Hoek presented an excellent talk on rockfall hazards at our joint meeting with the ASCE Geotechnial Group. Dr. Hoek addressed rockfalls on highways and common methods of defining acceptable risk from these hazards. His slides from projects in Hong Kong and India showed us methods of construction and mitigation that are often much different than those used in the United States. Under some circumstances, significant risks to road users are allowed to remain during road construction. In other cases, huge amounts of money are spent to try to eliminate all risk to life. Dr. Hoek discussed the usefulness of rockfall hazard rating systems and the best methodologies for assessing risks. His examples of various methods for rockfall control and their effectiveness was especially informative. More information on his research and projects is available in Hoek's Corner at <a href="https://www.rocscience.com/">www.rocscience.com/</a>.

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

I want to remind all our members that the AEG Board mid-year meeting will be held in Montreal on April 20 – 21, 2002. I will be attending the meeting as Oregon Section Chair. We will be voting on several changes to the bylaws. The most important one will be a proposed change to delete the Associate Member Class. This would leave just Member and Affiliate classes. Proposals have also been made to drop the requirement that Member applicants be sponsored by an active Member, and to delete the five year minimum experience requirement for becoming a Member. If you have any issues, concerns, or recommendations on these proposals to bring before the Board, please contact me before the meeting. Input from any AEG member is appreciated.

#### **Washington Certified Engineering Geologist Registration**

The Oregon and Washington licensing boards have been working together to develop a Certified Engineering Geologist exam for the State of Washington. The final format of the exam is being worked on with the cooperation of several CEGs residing in Oregon and Washington. Once the exam is in place, registrants passing the exam in one state may seek reciprocity registration in the other state. The grandparenting period for RG and CEG registration in Washington will close on June 30, 2002. If you want to get registration in Washington by grandparenting, do not wait until the last minute or there may not be enough time to process your application.

#### **March Dinner Meeting**

Brian Duevel and Greg Rollins will be our speakers at the March dinner meeting at Billy Reeds. They will talk about construction of Upper Pony Creek Dam and some of the large scale design complications. 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 in southwestern Oregon. Bryan Duevel is with the geotechnical engineering group at URS. Greg Rollins is the Resident Engineer for the project.

I look forward to seeing you at our March meeting.

Drew Harvey AEG Oregon Section Chair

## Short News Items

<u>Green Briefcases:</u> 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!!

<u>E-Mail "Newsletter:"</u> PLEASE TAKE THE TIME TO SWICTH 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** 

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

<u>The Board of Geologist Examiners</u>: 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 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.

## <u>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</u>

<u>Oregon Section Book</u>: 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

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

<u>PSU Student Chapter Elects New Officers:</u> The first week of December was the second meeting for the year for the PSU student chapter. Julie Griswold was elected president, Ericka Olesen was elected Vice President; Charlotte and Sue were elected co-secretaries and Josh Mathiesen was elected Treasurer. They had their first field trip on December 6th to see the super debris flow at Exit 35 on I-84 at Dodson.

### Cordilleran Section, Geological Society of America

98th Annual Meeting

Oregon State University, Corvallis, Oregon, May 13-15, 2002

This meeting will be held at the LaSells Stewart Center and CH2M Hill Alumni Center at Oregon State University. Participating organizations include the Northwest Energy Association (NWEA) of AAPG, the Oregon and Washington Chapters of the Association of Engineering Geologists (AEG), the Cordilleran Section of the Paleontological Society (PS), and the National Association of Geoscience Teachers (NAGT). Meeting chair is Bob Yeats, (541)737-1226, yeatsr@geo.orst.edu. Coordinators for participating societies are Jack Meyer (NWEA) at h2m@nwnatural.com, Scott Burns (AEG) at (503)725-3389, burnss@pdx.edu, Jeff Myers (PS) at (503)838-8165, myersj@wou.edu, and Peter Wampler (NAGT) at (541)758-8418, wamplerp@geo.orst.edu.

Convention website is http://terra.geo.orst.edu/users/gsa2002

#### JOINT MEETING ANNOUNCEMENT

ASCE Geotechnical Section - SEAO Structural Engineers Association of Oregon

Wednesday, March 20, 2002 DATE:

Shenanigins, 4575 N Channel Avenue, Portland, Oregon PLACE:

(503) 289-1597

5:30 p.m. Social, 6:30 p.m. Dinner, 7:30 p.m. Program TIME:

\$25. Cash or checks only please. \$12 for students. COST:

Nason McCullough Graduate Research Assistant Oregon State University SPEAKER:

(see attached biography)

The Seismic Performance of Pile Foundations in Waterfront Applications PROGRAM:

(see attached abstract)

RESERVATIONS: Call Michelle Dodgson or Amy Muniz at GRI at 503-641-3478, or Jane Phifer at 503-

399-7312, before 5:00 PM, March 15, 2002. We must charge for all dinner

reservations.

NEXT MEETINGS: The next Geotechnical Section meeting will be held on Monday, April 15, 2002. The topic will be *The Submarine Landslide*, *Skagway*, *Alaska* presented by **Derek** Cornforth of Landslide Technology. Our May 2, 2002 speaker will be Terzaghi Lecturer Suzanne Lacasse, Managing Director, Norwegian Geotechnical Institute. Do not forget ASCE Seattle Section Geotechnical Group Seminar Recent Advances in Geotechnical Earthquake Engineering on April 20, 2002. For information contact Robert Metcalfe, Seattle Geotechnical Group Chair at (425) 861-6098 or rmetcalfe@geoengineers.com.

The Geotechnical Group is continuing to ask for companies to assist in our "Sponsor the Speaker" program to provide the financial resources needed to bring out-of-state speakers to Oregon. Company donations are welcome. Previous donations have ranged from \$100 to \$250. Please contact one of our Section Officers if your company is interested in supporting this program.

## AEG ''Oregon Section'' - OFFICERS

Area codes are 503 unless noted:

Position	Name	<b>Daytime</b>	Home	FAX	
Chair	Andrew Harvey e-mail: aharvey@klein	644-9447 nfelder.com	617-9486	643-1905	
Chair Elect	Ruth Wilmoth (360 e-mail cgivanc@aol.co	9 <i>44-7397</i> om	397 (360) 944-6985		
Secretary	Warren Krager wkrager@kleinfelder.	644-9447 com	684-4902	643-1905	
Treasurer	Rowland French (54 e-mail rowland@nga.c	41) 757-7231 com	1 (541) 757-7331		
Past Chair	Charlie Hammond e-mail: chammond@c	452-1100 ornforthcons	274-1437 cultants.com	452-1528	
<b>Program Chairs</b>	Jason Hinkle (503)9457468 (503) 6146-2815 Jhinkle@odf.state.or.us			2815	
	Tim Richter Tim_richter@urscorp	948-7213 .com		222-4292	
Membership	Tim Blackwood e-mail: tblackwood@c	684-3460 carlsontesting	631-7996 g.com	670-9147	
Field Trips	Tom Kuper Dkuper@cybcon.com		638-9722	638-9723	
<b>Section History</b>	George Freitag 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 ''NEWSLETTE	
NAME	
AFFILIATION:	
MAILING ADDRESS:	
TELEPHONE:	
Mail form and \$10 to Dave Michael c/o ODF NWOA, 801 Gales C	reek Rd. Forest Grove OR 97116

## ANNOUNCEMENT OF OUR NEXT MEETING

# Feb. 21, 2002 AEG

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