



The Official

# Newsletter

of the Oregon Section Association of Engineering Geologists

Serving Professionals in Engineering, Environmental, and Groundwater Geology

## MAY 2004 SECTION MEETING

GUEST: CHARLIE HAMMOND, C.E.G., LANDSLIDE TECHNOLOGY

**PRESENTATION: JOHNSON CREEK LANDSLIDE GEOTECHNICAL INVESTIGATION**

The Oregon Department of Geology and Mineral Industries (DOGAMI) maintains programs aimed at the understanding, safety awareness and economic impacts of Oregon's coastal processes. In collaboration with the Oregon Department of Transportation (ODOT), Landslide Technology was retained by DOGAMI to manage the Johnson Creek Landslide geotechnical investigation, to analyze the landslide causative factors, and to develop conceptual options to remediate the landslide movement. The investigation was performed from Nov. 2002 through June 2003. DOGAMI continues to monitor and collect data on the conditions of the landslide.

The investigation of Johnson Creek Landslide provides an understanding of the mechanics of the slide and the relationship between ground movement, groundwater fluctuations, precipitation, bluff erosion and beach sand movement. The slide is a complex translational-

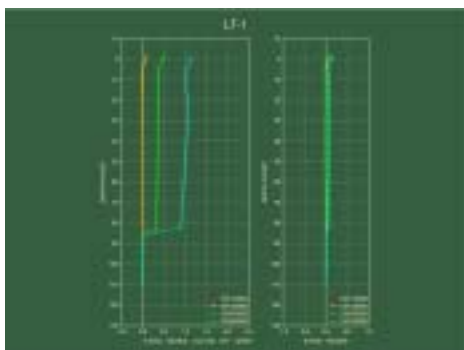
type slide that is approximately 200 meters (660 feet) long (east-west) and 400 meters (1300 feet) wide (north-south), and up to 27 meters (90 feet) thick. Slide geometry and movement appears to be controlled by bedding within the Astoria Formation, which is tilted about 17 degrees to the west.

Johnson Creek Landslide is marginally stable and moves when groundwater levels rise to a threshold that can be reached during winter storms. During the study period, precipitation amounts of 55 to 60-mm (2.2 to 2.4 inches) over a 24-hour period triggered movement.



Compared to groundwater fluctuation, typical rates of erosion and beach sand movement have marginal impacts on the stability of Johnson Creek Landslide. However, based on the slide mechanism, without erosion of the coastal bluff, the stability of the slide would reach equilibrium and movement would

*(Continued on page 2)*



**This Month's Meeting is on Tuesday May 18**

**Bridgeport Brewery Company**  
**1313 NW Marshall**  
**Portland, Oregon**

6:00 pm Social  
 7:00 pm Dinner  
 8:00 pm Presentation

Pizza and salad buffet  
 \$20.00 dinner (\$10.00 for students)  
 Call URS at 503-222-7200 by 4 pm  
 Fri. May 14 with your reservation  
 \$2.00 surcharge for those who do  
 not reserve by the deadline.

## MESSAGE FROM THE CHAIR-ELECT

As I write this Warren Krager is on his way to Salt Lake City to represent the Oregon Section at the mid-year board meeting of the AEG. He should return from that meeting with the latest status of the AEG and will give us a report at the May meeting.

I will be moving into the Chair position in September, and am looking forward to another great year next year. We have historically had a strong Chapter with good support from our membership. We hosted the national meeting 7 years ago, and encouraged the 2002-2003 AEG President, Scott Burns, as he rose through our ranks. We consistently have 30-40 members at our local meetings and 20-30 at the national meetings. As members, it is your organization. It requires 12 to 15 committed individuals, your Board members, to make it work. They organize monthly meetings,

field trips, student support, and provide legislative and regulatory input. We do our best to support our profession.

We are currently looking for a few good individuals to step forward and become part of the Board. We still have not yet identified a candidate for **Treasurer**. That individual will move up the chain and become Chair in September 2007. It is not an overwhelming job but involves working with the Board to assure the old programs continue and new programs are nourished. Over the course of their 5 year term (moving through the positions of Treasurer, Secretary, Chair Elect, Chair, and Past Chair) the time requirement is generally only a few hours every month. It is rewarding to see the Chapter functions happen, knowing that without your help they would not happen.

Julie Griswold, our current

**Program Chair**, also needs some help. Sharing the workload in that position provides a little flexibility for that board member. Thanks to Tim Richter for his help in this Chair for the past few years. Tim is stepping down and Oregon Section AEG is looking for someone to step up and help.

Last month's meeting, student night at PSU, went well although the students outnumbered the professionals. Congratulations to Soren Clark and Hiram Henry on winning the two small monetary awards from the Oregon Section. There were many good poster presentations. Thanks to all the presenters, thanks to the Student Chapter for putting that meeting together, and thank you to the judges.

*Regards,*

*R.owland French*

*AEG Oregon Section Chair-Elect*

*(Continued from page 1)*

stop. Therefore, erosion of the marine bluff and groundwater fluctuation are the critical factors in the slide movement.

Remediation options that were evaluated include unloading, buttressing, draining, tied-back shear pile wall, and maintenance. Considering the large size of this land-

slide, unloading and buttressing are relatively low cost options. With stabilization and cost consideration, buttressing would be a preferential option; however, it has a significant environmental impact. A shear pile wall is extremely expensive primarily due to the depth of sliding. Draining groundwater from the landslide through horizontal drains

would be ineffective, since groundwater levels within the slide mass are relatively low and high levels following precipitation events naturally drain from the fractured slide mass. Based on the conceptual costs for the construction of these remediation options, annual maintenance becomes a reasonable option.

## AEG OR CALENDAR

**June ?:** Special Family Meeting at the ball park?

OREGON SECTION AEG NEWSLETTER is published monthly from September through May. Subscriptions are for members of AEG affiliated with the Oregon Section or other Sections, and other interested people who have requested and paid a local subscription fee of \$10.00. Email subscriptions are free.

News items are invited and should be sent to: Charlie Hammond, OR Section AEG Newsletter Editor, Cornforth Consultants, 10250 SW Greenburg Road, Portland, OR 97223, email: or.aeg.news@cornforthconsultants.com, phone (503) 452-1100. Electronic media is preferred. Deadline for submittal is Friday three weeks before each meeting.

Please notify Charlie if you have a change to your email or mailing address.

# PSU AEG STUDENT CHAPTER

## Portland State University Student Chapter Has Great Student Night!

The AEG student chapter at Portland State University hosted the Oregon section for its third annual student night on April 20, 2004. A crowd of 66 came to view 14 student posters produced by student members of the section. A group of 13 students from Western Oregon University also attended the evening affair. For the first

time, the Oregon section awarded two scholarships of \$300 and \$200 for the two top posters. The student chapter also supplied six awards of \$25 gift certificates to a local brew pub. Winners of the awards were:

- 1) First Place: Hiram Henry
- 2) Second Place: Soren Clark
- 3) Best Science: Niki Parenteau

- 4) Best Graphics: Aaron Fox
- 5) Best Undergraduate: Alishia Wurgler
- 6) Honorable Mention: Eric Nielsen
- 7) Honorable Mention: Josh Mathisen
- 8) Honorable Mention: Heather Easterly
- 9) Honorable Mention: Amie Lamb



Jessica Goins explains her poster to the judges.



Hiram Henry receives his scholarship for first place from Oregon Chair, Warren Krager.



Soren Clark, winner of second place and President of the PSU student chapter, talks to Dorian Kuper and Gary Peterson.

### 2004 Officers

- Soren Clark: President
- Josh Mathisen: Vice-President
- Susan Wacaster: Secretary
- Aaron Fox: Brownbag and Field Trip Wrangler
- Scott Burns: Faculty Advisor and Lead Wine Taster

### Website

<http://web.pdx.edu/~clarksk/aeg.html>

# THANKS FOR SUPPORTING OREGON AEG!

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PBS Environmental

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## NEWS ITEMS

**Membership Information:** If your membership information has changed, please take the time to update through the AEG Website or by contacting our Chief Staff Executive Becky Roland at (303) 757-2926 x307

**"Seeking Old AEG Annual Directories":** If anybody has any

pre-1997 AEG annual directories, please email George Freitag, History Chair at [gfreitag@gri.com](mailto:gfreitag@gri.com). George is compiling our sections history. His mailing address is: GRI Inc., 9725 SW Beaverton-Hillsdale Hwy, Beaverton, OR 97005

**Receive Your Newsletter by E-Mail:** PLEASE TAKE THE TIME TO SWITCH TO THE E-MAIL NEWSLETTER. This saves the Section money and simplifies the editor's job. Please send your e-mail address to [or.aeg.news@cornforthconsultants.com](mailto:or.aeg.news@cornforthconsultants.com)

## JOB OPENINGS

**PBS Engineering and Environmental.** Mid-level Environmental Scientist. Immediate position in our Vancouver, WA office. BS in environmental science, geology, or related field; MS preferred. Three to four

years consulting experience in soil and groundwater assessment, site remediation, geotechnical investigations, data evaluation, and report preparation. Current 40-hour OSHA 1910.120 (HAZWOPER) trained;

Oregon or Washington R.G. Knowledge and understanding of Oregon, Washington, and U.S. environmental regulations. To inquire or send resumes for this position, email: [marie\\_marks@pbsenv.com](mailto:marie_marks@pbsenv.com)

## OREGON SECTION OFFICERS & COMMITTEE CHAIRS



**Chair: Warren Krager,** PSI, Inc., (503)978-4727, [wkrager@aol.com](mailto:wkrager@aol.com)



**Chair-Elect: Rowland French,** Northwest Geophysical Associates, Inc., (541)757-7231, [rowland@nga.com](mailto:rowland@nga.com)



**Secretary: Brent Black,** Cornforth Consultants, Inc., (503)452-1100, [bblack@cornforthconsultants.com](mailto:bblack@cornforthconsultants.com)

**Treasurer: Mike Zimmerman,** GRI, Inc., (503) 641-3478, [mzimmerman@gri.com](mailto:mzimmerman@gri.com)



**Past-Chair: Ruth Wilmoth,** Columbia Geotechnical, (360)944-7397, [cgivanc@aol.com](mailto:cgivanc@aol.com)

### **PSU Student Chapter**

**President: Soren Clark,** [clarksk@pdx.edu](mailto:clarksk@pdx.edu)

**Program Chairs: Julie Griswold,** [griswold@pdx.edu](mailto:griswold@pdx.edu)



**Tim Richter,** URS Corporation, Inc., (503) 948-7213, [tim\\_richter@urscorp.com](mailto:tim_richter@urscorp.com)



**Membership Chair: Matt Brunengo,** (503) 534-0414, [mbrunengo@aol.com](mailto:mbrunengo@aol.com)

**Field Trip Chair: Dave Scofield,** Portland District COE, (503) 808-4867, [scofield@onemain.com](mailto:scofield@onemain.com)

**History Chair: George Freitag,** GRI, Inc., (503) 641-

3478, [gfreitag@gri.com](mailto:gfreitag@gri.com)



**Newsletter Editor: Charlie Hammond,** Cornforth Consultants, Inc., (503) 452-1100, or [aeg.news@cornforthconsultants.com](mailto:aeg.news@cornforthconsultants.com)



**Assistant Newsletter Editor: Darren Beckstrand,** Cornforth Consultants, Inc., (503) 452-1100, [dbeckstrand@cornforthconsultants.com](mailto:dbeckstrand@cornforthconsultants.com)

**Legislature Chair: Dorian Kuper,** Kuper Consulting, Inc., (503)638-9722, [dkuper@cybercon.com](mailto:dkuper@cybercon.com)

**Continuing Ed. Liaison: Andrew Harvey,** PBS Environmental, [andrew\\_harvey@pbsenv.com](mailto:andrew_harvey@pbsenv.com)