



The Official

OREGON SECTION AEG NEWSLETTER

November Meeting Details

Date: Tuesday, November 18

Location: Rouge Public House

1339 NW Flanders

Portland, OR

6:00 pm Social

7:00 pm Dinner

8:00 pm Presentation

Dinner: Burgers and Fries

\$18 Dinner (\$10 Students)

Reservations:
mwegner@cornforthconsultants.com
with "AEG Reservation" in
the subject line or 971-222-
2047 by 4pm Thursday No-
vember 13th.

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

Upcoming Meetings:

- December: TBA
- January: Yumei Wang, Multi-Hazards
- February: Jenne Castro, Stream Restoration



Wear a Ha-
waiian shirt
and get a free
Pint of Beer !

The November Meeting Guest Speaker is Gunnar Schlieder from GeoScience, Inc. Presentation: Eilertsen Creek/Woodson Slope Movements and Debris Flows of December, 2007

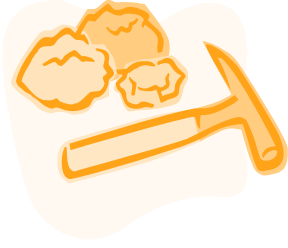
The south side of the Columbia Valley in the vicinity of the towns of Marshland, Woodson, and Kerry, has been subject to newsworthy impacts from debris flows for more than a hundred years, in some cases (1933) resulting in fatalities. On December 3, 2007, a record-setting storm event resulting in a maximum 6.67-inch 24-hour precipitation and a 9.19-inch three-day precipitation total, resulted in re-activation or initiation of numerous slope movements and debris flows in the Eilertsen Creek basin above Woodson. In contrast to a 1996 event, eyewitness reports indicate that none of these events directly affected Woodson. Two of the slope movements, involving an estimated 85,000 and 6,300 cubic yards, respectively, partially mobilized as debris flows which deposited around 12,000 cubic yards on the up-slope side of a 75-foot high embankment constructed for the Kerry Railroad in 1915/16. The debris flows plugged the culverts through the embankment and run-off was subsequently impounded behind the embankment

to a maximum depth of 27 feet. The embankment, not designed as a dam, failed catastrophically on December 11, destroying several residences in Woodson and covering Highway 30. Due to warning from ODF personnel at the site, the highway had been closed and the residences evacuated one hour prior to the catastrophic failure.

Although initial discussions of the probable causes of the December 3 debris flow failures focused on forest management, evidence from historic aerial photos of the area indicates that no slope movements were reactivated or initiated within the har-

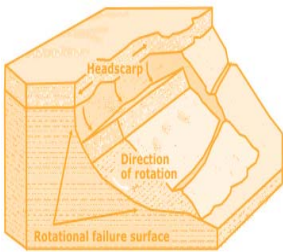
vested areas by previous record-setting precipitation events (1996 and 2006) during the most sensitive time interval following the 1992 and 2004 harvests. Changes to the drainage basins as a result of more recent road construction also appear insignificant. However, based on historic precipitation records, the rainfall on December 3 appears to have exceeded the previous highest recorded 24-hour total by nearly 15 percent. Therefore, precipitation intensity and duration and the characteristics and distribution of the geologic units are the most likely factors implicated in the initiation of the debris flows which affected the embankment.





Bio: Gunnar Schlieder

Dr. Schlieder, a native of Germany, is an Engineering Geologist with more than 25 years of experience in geotechnical, hydrogeologic, mineral resource, and environmental projects and is President of GeoScience, Inc.. At present, he specializes in slope stability assessments and slope failure mitigation, and in debris flow risk assessment on forest lands. He also prepares geotechnical reports for subdivision feasibility, and commercial and residential foundation assessments. He has worked in western Oregon for the last 19 years. He holds the a B.S. degree in geology from the Technische Universität München (1978), an M.S. degree in geology from The George Washington University (1984) and a Ph.D. in



Message From The Chair

We will be meeting at the Rogue Pub this month. It's a new venue for us and I am excited to try it out. Let us know what you think about it. And if you have any other ideas for venues, please share them. We are always keeping our eyes open for new places to hold our meetings.

This month's speaker is Gunnar Schlieder of GeoScience. He will be presenting on his forensic investigation of the Woodson Debris Flow and the chain of events that lead up to it. I have worked extensively with Gunnar over the years and I have learned a lot from him. Gunnar is known for his inter-

pretive and analytical skills, objective thinking, and his enthusiasm for sharing ideas and opinions. I happened to witness the Woodson Debris Flow while on the job for the Oregon Department of Forestry and I can tell you that it was an interesting sequence of events that lead to an amazing debris flow. In the aftermath, a number of questions were raised about landslides and forest practices and how they related to the Woodson Debris Flow. While ODF conducted their own internal review, they also hired a consultant to perform an independent evaluation. Gunnar got the job and conducted his own

investigation. However, I was able to spend a couple days in the field with Gunnar at the site. I really enjoyed the conversations that we had in the field and I am looking forward to continuing those conversations in the pub. I hope you can join us.

AEG Oregon Section Chair
Jason Hinkle



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

Karl Terzaghi

The Oregon Section Newsletter

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

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<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

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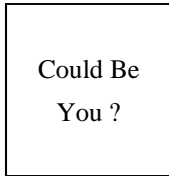
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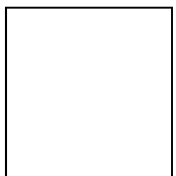
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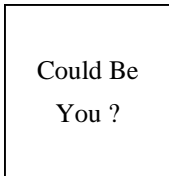
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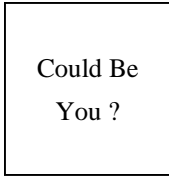
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Photos of the Month



Before



After



The October photos are of the recent Burlingame Landslide. The before image is from Google Street View and the after images are from KATU (helicopter).

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.