



The Official

# OREGON SECTION AEG NEWSLETTER

<http://www.aegoregon.org>

## April Meeting Details

Tuesday, April 14<sup>th</sup>

### Location: Old Market Pub

6959 SW Multnomah

Portland, Oregon

6:00 pm Social

6:45 pm Dinner

7:30 pm Presentation

Dinner: Pizza & Salad

\$20 Dinner

Students FREE with RSVP  
(\$5 if no RSVP)

### Reservations:

[mwegner@cornforthconsultants.com](mailto:mwegner@cornforthconsultants.com)  
with "AEG Reservation" in  
the subject line or 971-222-  
2047 by 4pm Thur. Apr. 9

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

### Upcoming Meetings:

May 20<sup>th</sup> Student Poster Night

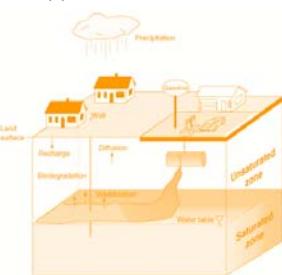
## Advantages of Early Hazardous Material Assessment: Hwy 212/224: Sunrise Corridor JTA, Clackamas County, Oregon

Guest Speakers: Michael Reynolds and Brian McNamara

NOTE: WESTERN STATES IS  
HOSTING THE BEVERAGES!

One Superfund site. Six DEQ cleanup sites. Numerous leaking underground storage tanks (LUSTs). One military reservation with the potential for unexploded ordinance. Hazardous materials issues along ODOT's Sunrise Corridor alignment were as varied as they were challenging. The new 2.5-mile-long expressway is being built in a heavily industrialized area of Clackamas County, and these environmental hazards could have significantly impacted the construction schedule and costs. But early assessment of those hazards and communication of their potential impacts on design and construction instead yielded significant risk management benefits for the project team. Shannon & Wilson completed a Hazardous Materials Corridor Study, seven Level-2 Preliminary Site Investigations, five Hazardous Building Materials Surveys, and a dewatering evaluation. The data obtained led to the development of a comprehensive Contaminated Media Management Plan addressing more than 150 project elements and including a beneficial reuse evaluation and plans and specs for special construction handling and disposal requirements. Advantages gained from this early hazardous materials involvement included a new perspective on design alternatives for a bridge abutment in a highly contaminated area. To meet ODOT seismic standards, the otherwise simple, single-span bridge foundation design would have required extensive, expensive ground improvements to mitigate the dangerous materials encountered by construction. Shannon & Wilson was able to describe the level of contamination and quantify the disproportionate cost of mitigation, which ultimately led to ODOT granting a seismic design variance. In another instance, we used contaminant fate and transport modeling to manage risks during dewatering operations near a polluted groundwater plume. By clearly communicating the way in which the plume would flow – affecting construction and adjacent UPRR right-of-way – Shannon & Wilson helped the design team understand the threat and successful work around it. With the help of a hazardous materials team working closely and continuously with ODOT and the design team, the project progressed on time and without any significant hazmat construction issues. ODOT granted the design team a certificate of appreciation for its work on the project.

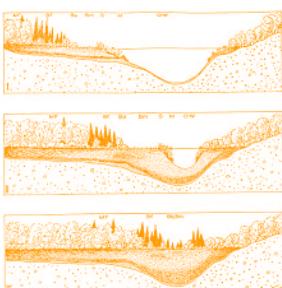
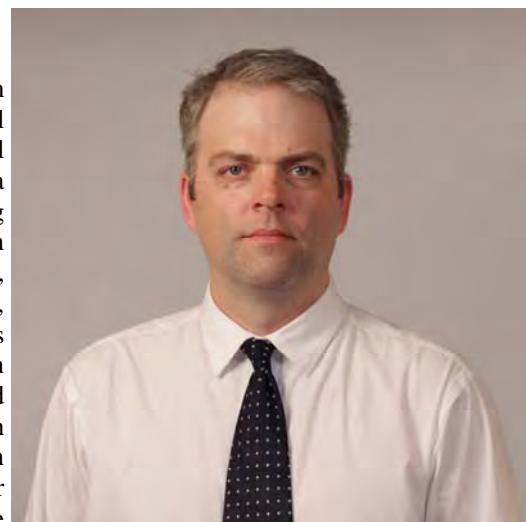




## Bio: Michael S. Reynolds, PE

Michael is a Principal Environmental Engineer with Shannon & Wilson, Inc., and is the environmental group manager of the Lake Oswego office. Michael graduated from Portland State University with a master's degree in civil and environmental engineering and has more than six years of experience focusing on corridor-level site assessment and investigation, feasibility studies, and cleanup planning, estimating, and implementation on large highway and rail projects throughout the Pacific Northwest. He has worked on several projects addressing environmental and hazardous material issues during property acquisition and redevelopment specific to transportation infrastructure projects. Michael's recent projects for ODOT have included the new Hwy 212/224: Sunrise

Corridor JTA project in Clackamas, roadway improvements for OR 99W in North Portland, interchange improvements at US 101 and OR 6 in Tillamook, and a hazardous materials assessment spanning more than 250 miles between Portland and Eugene for Oregon Passenger Rail.



## Bio: Brian McNamara, RG

Brian McNamara is a Geologist in the Portland office of the ODOT Region 1 Geo-Environmental Unit. He has practiced in both the public and private sectors since 2006 on a variety of environmental investigation and remediation projects, including industrial manufacturing facilities, landfills, mines, and in-water contaminated sites. Since joining ODOT in 2008, Brian's primary role is to serve as an environmental geologist on design, construction, and maintenance projects, and act as an emergency responder to hazardous materials incidents on ODOT right-of-way. He also assists the Region 1 Geology team on a variety of engineering geology projects including rock and soil cuts, subsurface investigations for foundation design, and emergency response. Brian has bachelor's degrees in geology and environmental geoscience from Michigan State University. He previously worked for two years on tunneling construction projects in Illinois and Texas, then for 10 years as an environmental and geotechnical consultant in the Pacific Northwest.

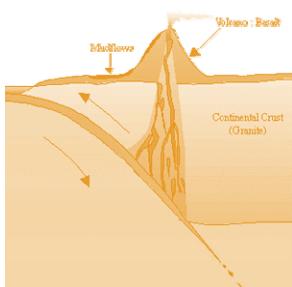


## Spring Term Courses at Portland State University

- G424/524, GIS in the Natural Sciences, Percy, 4 credits, MW 11:30-12:35, Cramer Hall 287 with labs on either: MW in Neuberger Hall 450 from 12:45-14:35 or 15:15-17:10.
- G510, Lidar and Landscape Evolution, Booth, 4 credits, MW, 15:15-16:20, CH S69 and lab on Thursday, 14:00-15:50, NH 450.



Please note, next year PSU will have many applied courses offered with one new faculty member starting, plus the case histories course will be offered.



## Message from the Chair

Greetings! Thank you to everyone who joined us for our March meeting at the Old Market Pub when we welcomed **Scott Wallace, R.G.** and **Mark Herbert, P.E.** of Wallace Group, Inc. They spoke about the **Colorado Avenue Dam Safe Passage Project** on the Deschutes River in Bend. Thank you Scott and Mark! Unfortunately I had to miss the meeting due a schedule conflict; I really hated to miss this talk.

We just submitted our proposal to host the 2020 AEG Annual Meeting in Portland to AEG National. THANK YOU to our Meeting Committee and to everyone who provided great suggestions for technical sessions, field trips, and reasons why Portland is the best place to have the 2020 AEG Annual Meeting. In addition, thank you to everyone who helped to edit, revise and otherwise improve our 2020 AEG Annual Meeting proposal. I will be providing a brief presentation on our proposal at the Mid-Year Board Meeting, and then the Board of Directors will vote. Let's hope for the best!

As I'm hoping all of you are aware, AEG is going through a Governance Restructure process. I am being asked to vote on the proposed new Regional Map for AEG (Figure 1) at the Mid-Year Board Meeting on April 25 and 26. I've heard from quite a number of you regarding your thoughts on the proposed new Regional Map that I emailed to the listserv on March 17 – thank you! For those of you that I haven't heard from yet, please email me ([lmark@esassoc.com](mailto:lmark@esassoc.com)) your thoughts on the proposed new Regional Map so that I can gain a better understanding of any concerns that you might have and so that I can continue to provide member feedback on this issue to the AEG Executive Council and Board of Directors.

Abstracts are due by May 1, 2015 for the 58<sup>th</sup> AEG Annual Meeting, in Pittsburgh, Pennsylvania, September 19-26, 2015. For more information, please visit <http://www.aegannualmeeting.org/>. This year the Oregon Section of AEG will be offering TWO Student Awards to attend the Annual Meeting in Pittsburgh. Students, join AEG for free now to be eligible for these awards! Please see the award details in the newsletter on page 4. In addition, AEG Travel Grants are now available for educators and young professionals; see <http://www.aegannualmeeting.org/#!registration/ch6q> for details.

Last month alone four more professionals joined the Oregon Section and five more student members joined... if you haven't joined yet or renewed your membership to AEG for 2015, now is a great time to do so! AEG provides you with great monthly presentations, networking opportunities, conferences, field trips, professional development opportunities, publications, and career resources. Your AEG membership enables us to provide you with all of these and more member benefits. So, if you haven't yet become a member or renewed for 2015, please consider becoming a member today! If you have already renewed your membership for 2015, THANK YOU!

I look forward to our next meeting on Tuesday, April 14<sup>th</sup> when we welcome **Michael Reynolds, PE** of Shannon & Wilson, Inc. and **Brian McNamara, RG** of ODOT as they present their talk entitled **Advantages of Early Hazardous Material Assessment: Hwy 212/224: Sunrise Corridor JTA, Clackamas County, Oregon**.

I hope you can join us  
Tuesday, April 14 at the  
Old Market Pub!

Cheers,

Linda Mark, RG, CPG  
Chair, Oregon Section  
of AEG  
ESA Vigil-Agrimis

*"Keen observation is at  
least as necessary as  
penetrating analysis"*

*Karl Terzaghi*

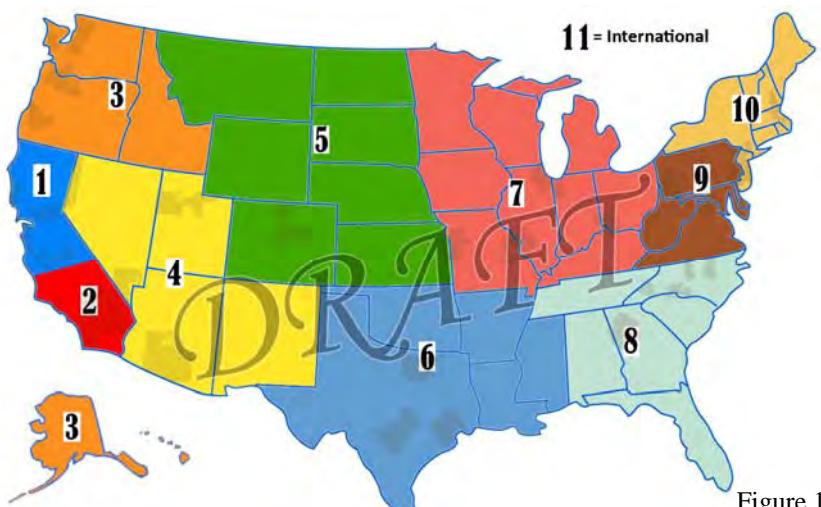


Figure 1



*"The earth is large and old enough to teach us modesty."*

*Hans Cloos*



## Oregon Section of AEG Student Award to Attend 2015 Annual Meeting in Pittsburgh, PA

Two Awards of \$1,000 each will be given to two Student Members of the Oregon Section of AEG meeting the following criteria:

- **Completion of the Application for Student Award to Attend the 2015 Annual Meeting** - Application submittal to the Oregon Section Board of AEG due by 10 p.m. on Friday June 19, 2015.
- **Active AEG Oregon Section Student Membership** - Any Student Member of the Oregon Section of AEG is eligible for this award. If you are not currently a Student Member of AEG, you may register for free online at [www.aegweb.org](http://www.aegweb.org).
- **Presenting at the AEG 2015 Annual Meeting in Pittsburgh** - Abstracts for presenting at the 2015 AEG Annual Meeting must be submitted online to AEG no later than May 1, 2015. Those people submitting abstracts should be notified by the AEG Technical Committee of abstract acceptance by June 1, 2015. A copy of the notice of acceptance from the Technical Committee must be submitted with the application.
- **Essay** (250 to 500 words) - Describe in an essay your geologic activities outside of the university classroom and demonstrate how these activities relate to your geologic professional goals. Activities might include attendance at geology-related meetings, professional field trips, mentorship experiences, volunteering in the community, working in a lab, etc.

**Complete applications for this award are due no later than 10 p.m., Friday, June 19, 2015.** Selection of the award winners is at the sole discretion of the Oregon Section Board of AEG. The Oregon Section Board of AEG reserves the right to not select a winner or winners if there are an inadequate number of submissions or if applicants do not meet the minimum requirements. We expect to decide on the winners of the award by July 1, 2015.

See the Application Form (coming out soon!) for submittal details.

**Additional award opportunities are available to students, including:**

- Complimentary registration from AEG to students who volunteer at the 2015 Annual Meeting.
- Various scholarship and grant opportunities through AEG Foundation (amounts vary), described at <http://www.aegweb.org/students-educators/scholarships-grants>.

**Not a Student?**

- Check out the Educators and Young Professional Travel Grants: <http://www.aegannualmeeting.org/#!registration/ch6q>



# AEG

## 58<sup>TH</sup> Annual Meeting

PITTSBURGH, PA | SEPTEMBER 19-26, 2015

Below the steep slopes of Mount Washington created by three great rivers, the City of Pittsburgh blends its industrial heritage with its forward focus on technology. Throughout this dynamic urban landscape, past and present collide in land use, environmental impacts, and shifting economic forces. The AEG 2015 Annual Meeting Planning Committee invites you to join us for the "Conference at the Confluence".

### WYNDHAM GRAND DOWNTOWN



Discover the 90 distinct neighborhoods of Pittsburgh Pennsylvania when you stay at the centrally located Wyndham Grand Pittsburgh Downtown.

The hotel is located in the Central Business District, also known as the Golden Triangle, at the meeting of the Allegheny and Monongahela Rivers to form the Ohio River. Where soaring skyscrapers and Pittsburgh's famous three rivers meet, an upscale hotel experience awaits in downtown.

### CALL FOR ABSTRACTS

(Oral and Poster Presentations)

*Do not miss this opportunity to provide an oral or poster presentation at this year's meeting!*

Abstract submission deadline is May 1, 2015

### SPONSORSHIP & EXHIBITOR OPPORTUNITIES

Event sponsorship is effective advertising that builds lasting recognition and good will for your company. We anticipate over 500 professional registrants at AEG2015 in Pittsburgh! We also have a brand new, fully interactive mobile app that provides even more sponsorship opportunities, so be sure to check it out!

**NEW!**  
Cutting edge interactive app.  
Leave the paper behind and don't miss a thing!

### FIELD TRIPS, GUEST TOURS AND SPECIAL EVENTS

We have an exciting lineup of trips, tours and a very special event this year, an evening aboard the Gateway Clipper. Join us for a reception cruise and see the spectacular city skyline as the sun sets on the three rivers.

See our website for complete details:  
[www.aegannualmeeting.org](http://www.aegannualmeeting.org)



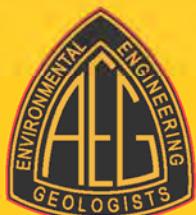
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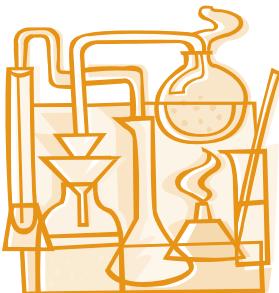
[www.aegannualmeeting.org](http://www.aegannualmeeting.org)

Username: AEG

Password: Pittsburgh2015

(DO NOT USE YOUR AEG MEMBERSHIP LOGIN)





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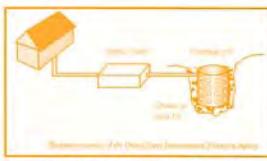
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Schematic of a Seepage Pit (Dry Well)



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- Seismic Refraction/Reflection
- Shearwave Velocity Studies
- Electrical Resistivity Profiling
- Ground Penetrating Radar
- Magnetics/Electromagnetics
- Gravity
- Marine Geophysics

### Vibration & Noise Analysis:

- Remote Vibration Monitoring
- Real-time Frequency Analysis
- Construction Monitoring
- Demolition Monitoring
- Blast Design and Monitoring
- Pre-construction Surveys
- Sensitive Equipment Certification

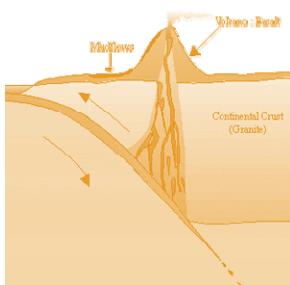
### Rock Mechanics:

- Uniaxial Compressive Strength
- Direct and Triaxial Shear Strength
- Direct and Indirect Tensile Strength
- Dynamic & Static Elastic Moduli
- Thermal Properties
- Density & Porosity
- Moisture Content

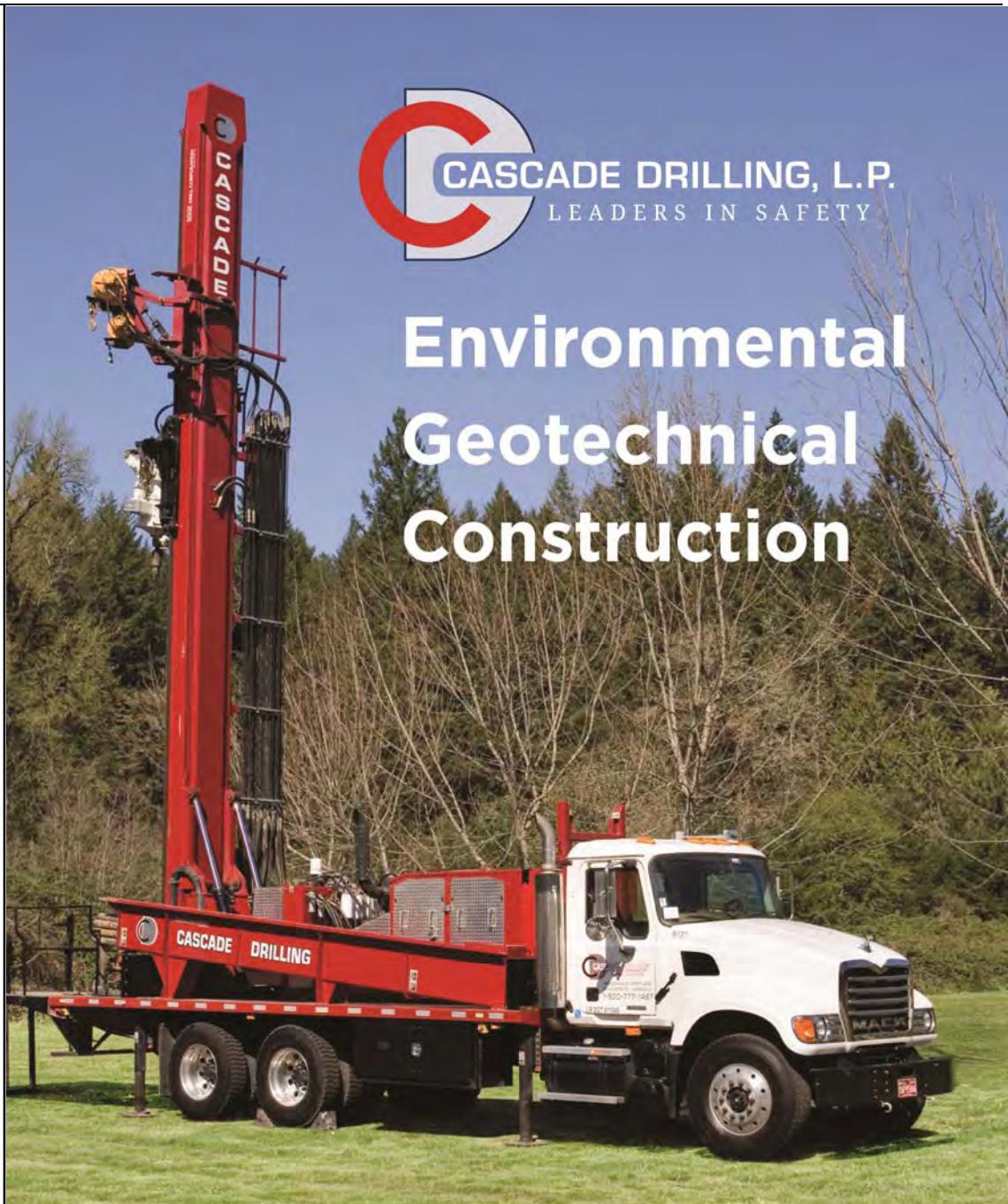


*"Keen observation is at least as necessary as penetrating analysis"*

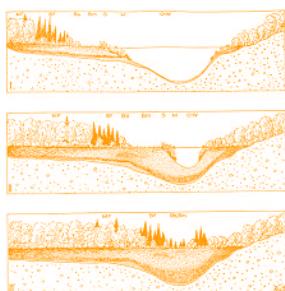
*Karl Terzaghi*



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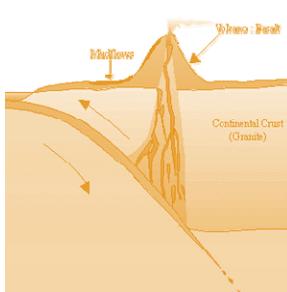
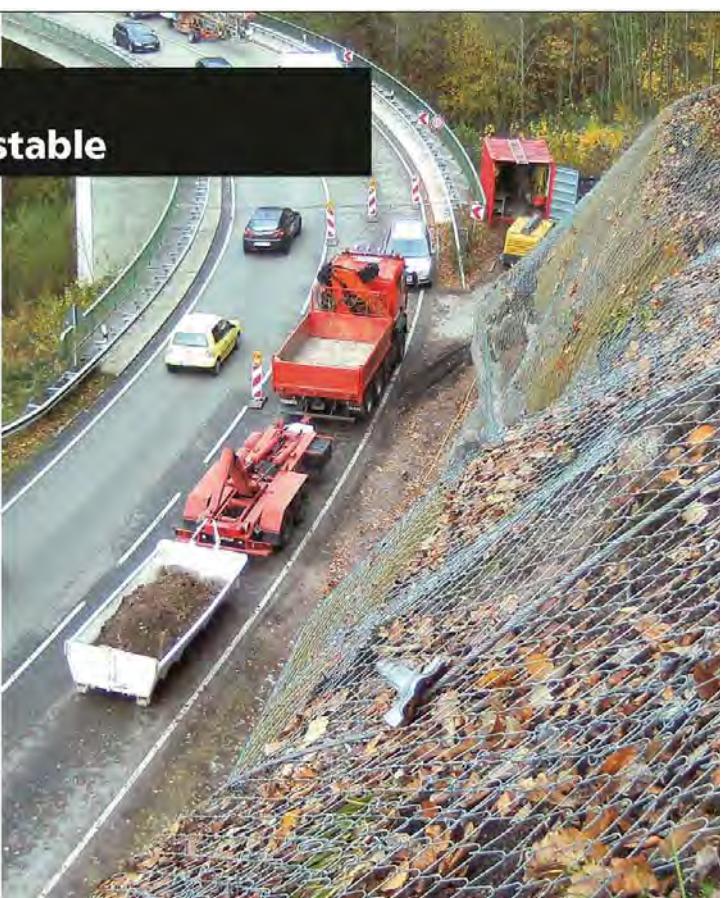
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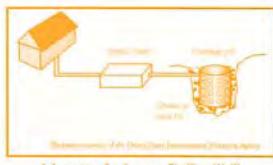
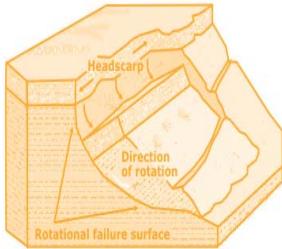


Diagram courtesy of the Oregon Department of Environmental Quality

Schematic of a Seepage Fit (Dry Well)

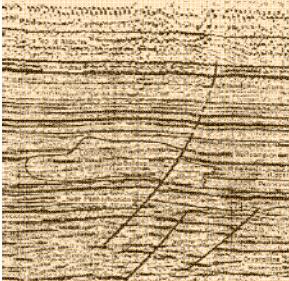


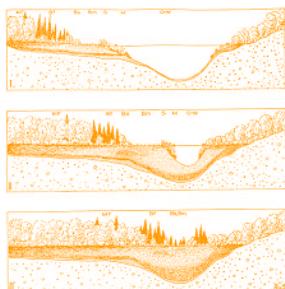
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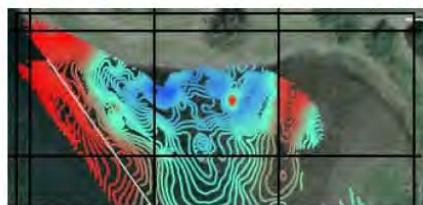
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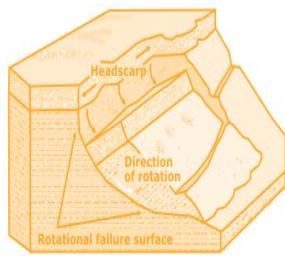
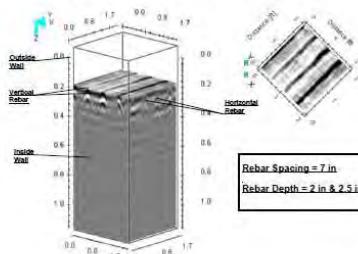
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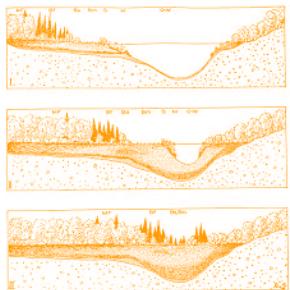
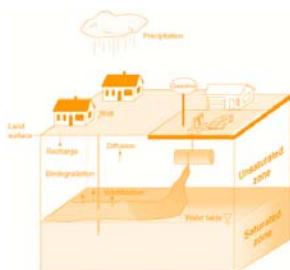
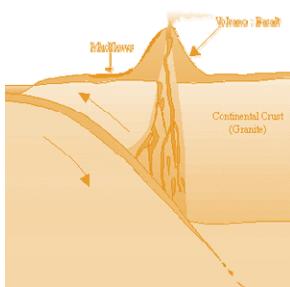
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*"The earth is large and  
old enough to teach us  
modesty."*

*Hans Cloos*



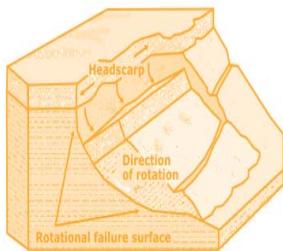
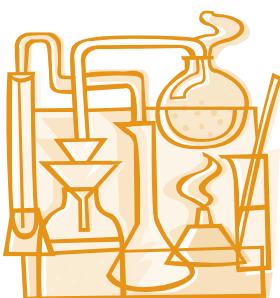
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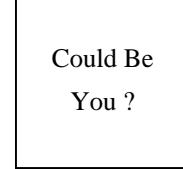
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ESA Vigil-Agrimis  
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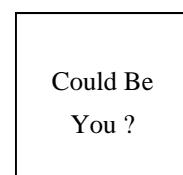
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the web at**  
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## The Oregon Section Newsletter

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 subscription fee of \$10.00. E-mail subscriptions are free. News items are invited and should be sent to: Scott Braunsten, OR Section AEG Newsletter Editor, PBS Engineering and Environmental, 4412 SW Corbett Avenue, Portland, OR 97239, e-mail: scott.braunsten@pbsenv.com, phone (503) 417-7737. Electronic media is preferred. Deadline for submittal is the 25th of the month. Advertising: business card \$100/yr; 1/4 page \$200/yr; 1/2 page \$350/yr; 1 page \$450/yr. Please notify Scott if you have a change to your email or mailing address.

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