

The Official

AEG OREGON CHAPTER NEWSLETTER

<http://www.aegoregon.org>

Meeting Details:

Date: Tuesday, Mar. 11, 2025,
7:00 pm Hybrid

RSVP

In-Person \$25 Cash or
check.
Cards please use link above.

Old Market Pub
6959 SW Multnomah Blvd.

Agenda:
5:30 – 6:30 pm social
6:30 – 7:00 pm dinner
7:00 pm presentation

UPCOMING MEETINGS:

Week of April 14th:
Student night (exact date
TBD)

May 19th: Renee
Wawczak, AEG President

Advances in Rockfall Protection: A New Design Tool for Attenuators

Tim Shevlin, PG

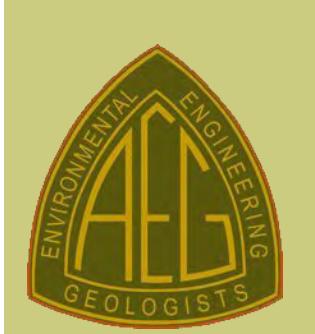
Technical Director of Sales

Regional Manager Pacific NW and Hawaii

Geobrugg North America, LLC

Abstract

Attenuators are a passive rockfall protection solution sometimes described as a flexible rockfall barrier with a prolonged draped tail. To date there are no formal solutions to their design. In comparison to classical flexible rockfall barriers where only translational kinetic energy is considered and the rockfall is stopped completely, attenuators present a design challenge wherein both the rotational and translational component of rockfall must be considered. In addition, Attenuator Systems are not stopping the rockfall, but rather changing the trajectory and moderating the velocity. In order to develop a dimensioning concept that addresses these dynamics, it is important to fully understand the attenuation process. A joint research program between Wyllie & Norrish Rock Engineers, Ltd. in Canada, Geobrugg North America, LLC, and Geobrugg AG, Switzerland investigated this process. The loading of the system, the attenuation processes, and the importance of the rotational component have been analysed in full-scale testing over a three-year period on a site in British Columbia. Rock motion dynamics are compared between those extracted from the accelerometer and gyroscope sensors embedded in the test blocks, high speed video analysis, and rockfall simulations. These analyses provide the foundation from which a dimensioning tool has been created.



*Geologists have a
saying - rocks
remember.*

Neal Armstrong



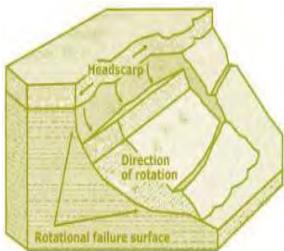
Speaker Bio

Tim Shevlin is an Engineering Geologist with 20 years of experience performing geotechnical and geologic investigations. Mr. Shevlin has a Bachelor of Science in Environmental Science from Allegheny College and a Master of Science in Geology from Kent State University. He is also a licensed Professional Geologist in Pennsylvania and Oregon.

Prior to joining the Geobrugg team, Tim worked on both public and private sector projects for nationally known engineering consulting firms performing geotechnical investigations and designs. He has experience working on commercial development projects, water resource projects, and transportation/railroad projects.

Tim is Geobrugg's Regional Manager for Northwest USA & Hawaii and the Technical Director of Sales and Marketing; he works out of Salem, Oregon.

Geobrugg North America, LLC: Protecting people and infrastructure from Natural Hazards



Message from the Chapter Chair

Hello, AEG Oregon!

The daphne plant is the source of my favorite smell of spring and it is out there. Morning walks with the dog are daily reminders that spring is in the air. The light stays later, the layers are shed more quickly on field days. The change of the seasons is the constant among the relentless change that is all around me.

I have received many positive comments about last month's Jahns lecture (sounds strange because it was just last week). We learned how feasible it is to utilize inexpensive and available technologies to perform 3D field scanning and point-cloud processing for rock-mass characterization and slope stability.

And without time to breathe, we are on to the next meeting. On Tuesday, March 11, Tim Shevlin of Geobrugg North America, LLC will present a new design tool for attenuators in rockfall protection. It should be fascinating. Details are provided on page 1, above.

The AEG 68th annual meeting is in Chicago, in September. There is a call for sponsorships, with details found [here](#).

Nominations for the [AEG Advocacy Award](#) are due by March 15.

Have you renewed your membership? Click [here](#) to do that.

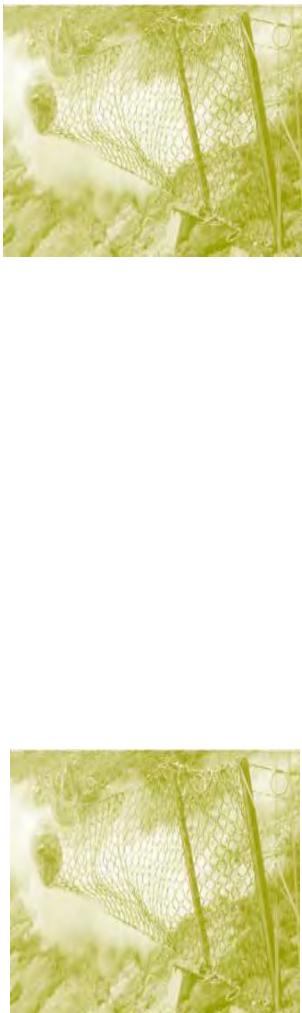
We are looking forward to seeing you all at the Old Market Pub.

Sincerely,

Nikos Tzetas
AEG Oregon Chapter Chair

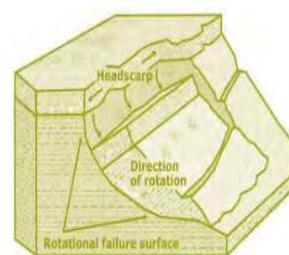
P.S.

Please remember to always name your WiFi "Yellowstone"...because it's a hotspot.



*Geologists are never at
a loss for paperweights.*

Bill Bryson



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Ralph Waldo Emerson

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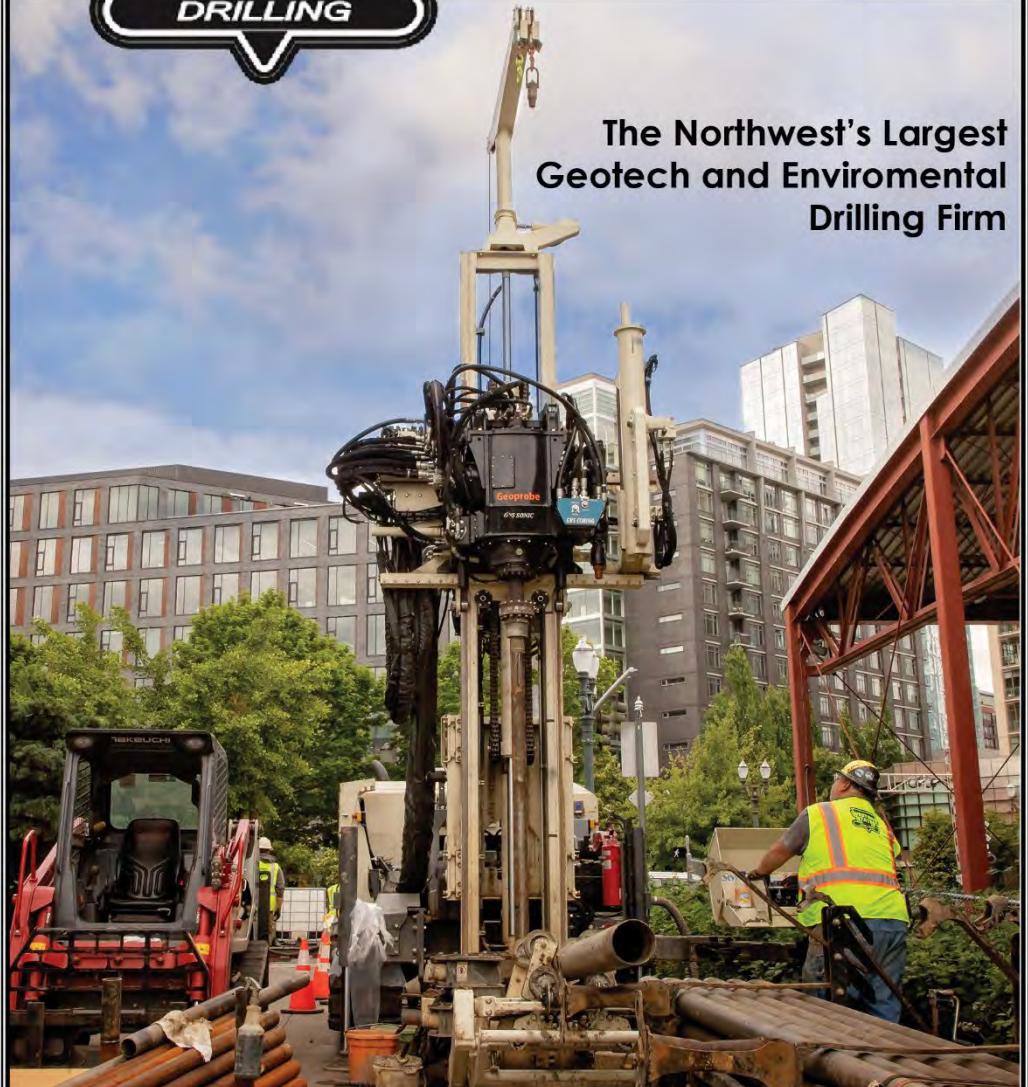
*We learn geology the
morning after the
earthquake.*

Ralph Waldo Emerson

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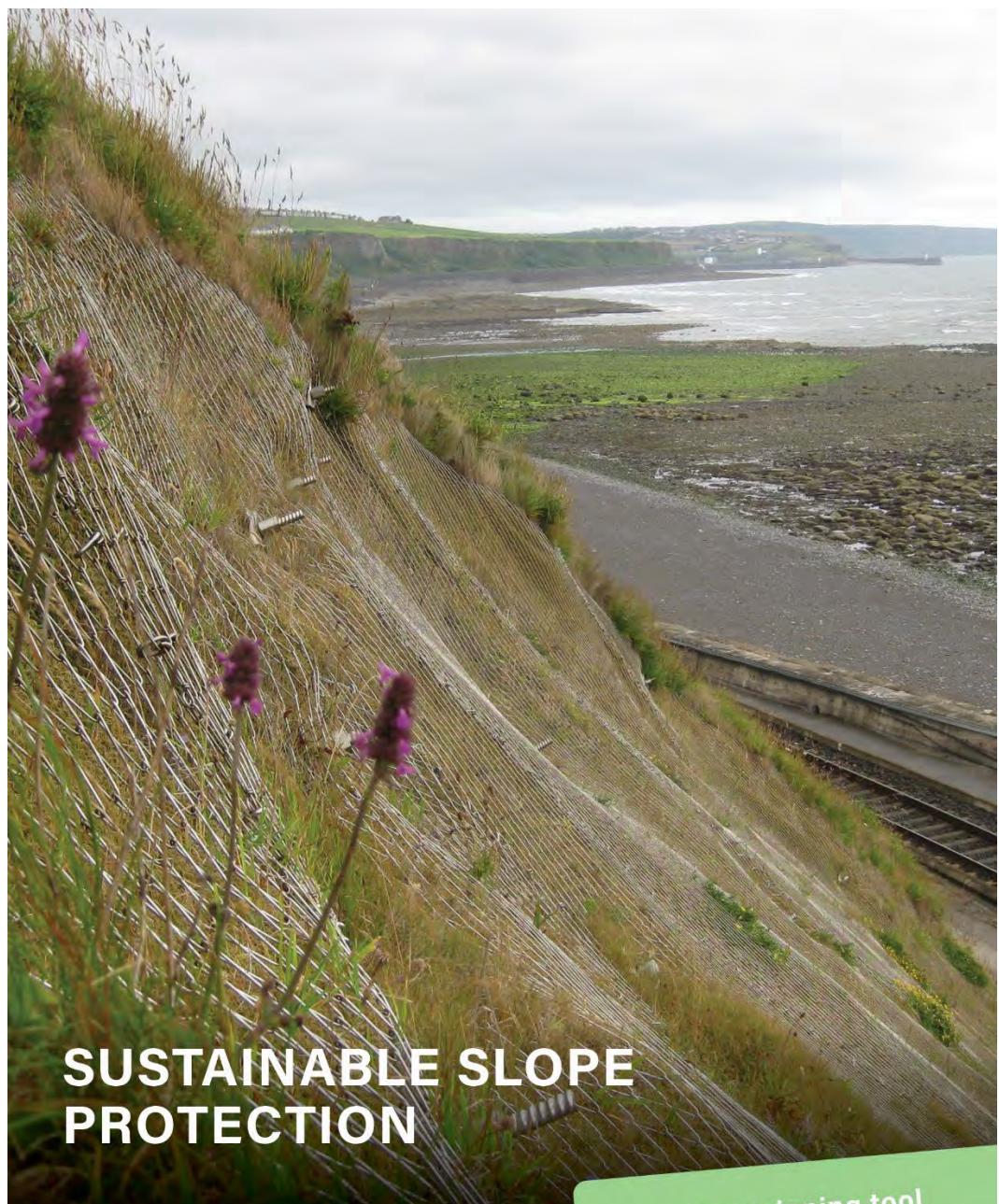
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Nikos Tzetas
Pacific Geophysics
nikos@pacificgeophysics.com



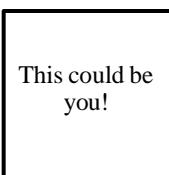
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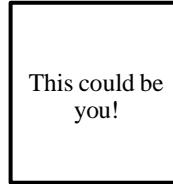
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The Oregon Chapter is also on the web at <http://www.aegoregon.org>
National AEG webpage:
<http://aegweb.org>

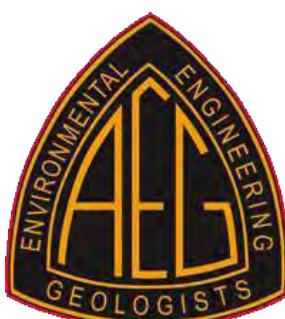
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The AEG Oregon Chapter Newsletter

The Association of Engineering Geologists (AEG) contributes to its members' professional success and the public's welfare by providing leadership, advocacy, and applied research in environmental and engineering geology. AEG's values are based on the belief that its members have a responsibility to assume stewardship over their fields of expertise. AEG is the acknowledged international leader in environmental and engineering geology and is greatly respected for its stewardship of the profession.

AEG OREGON CHAPTER NEWSLETTER is published monthly from September through May. Subscriptions are for members of AEG affiliated with the Oregon Chapter or other Chapters, 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: Nikos Tzetas, AEG Oregon Chapter Chair, Pacific Geophysics, 5915 N E 30th Avenue, Portland, OR 97211, e-mail: nikos@pacificgeophysics.com, phone 503.501.7846. Electronic media is preferred. Deadline for submittal is the 25th of the month. Advertising: business card size \$100/yr; 1/4 page \$200/yr; 1/2 page \$350/yr; 1 page \$450/yr.