

The Official

AEG OREGON CHAPTER NEWSLETTER

<http://www.aegoregon.org>

Meeting Details:

Date: Tuesday,
September 20, 2022
7:00 pm Hybrid

Physical RSVP

ZOOM RSVP

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

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:

October 18, 2022

--TBD

November 15, 2022

--TBD

TBB
December

--TBD

January , 2022
-Mosquito Crk Debris Flow
(Mecklenburg, NC)

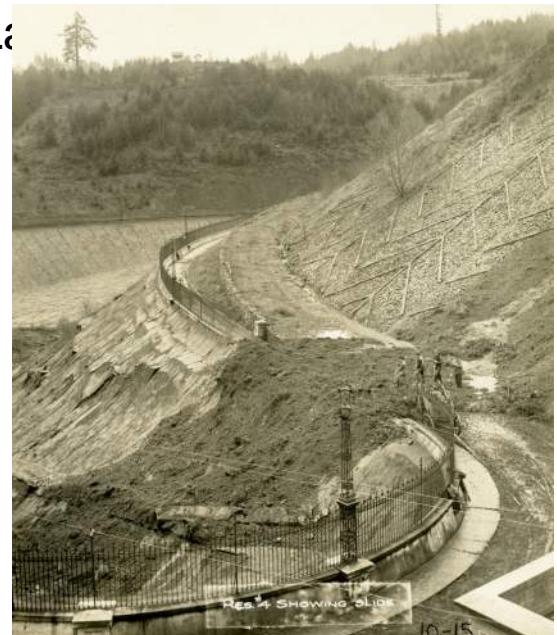
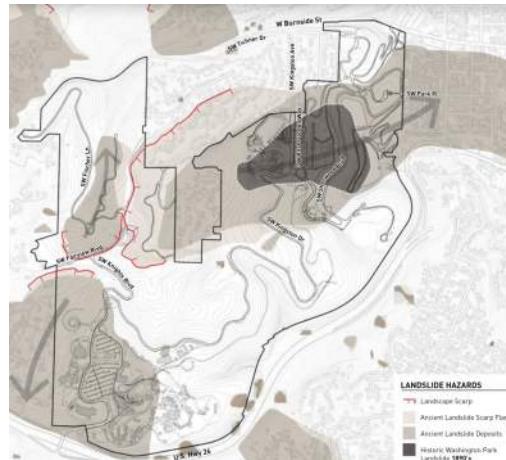
(Machan & Zimme
February 21, 2023)

Februar
TDR

--TBD
March 31, 2023

Match
TBD

Infrastructure vs. Ancient Landslides: A Case Study at Washington Park Landfill



Located at Washington Park in the West Hills above downtown Portland, Oregon, Reservoirs No. 3 and 4 have supplied drinking water for the City of Portland since their construction in 1893 – 1894. Beginning in 2016, the Portland Water Bureau embarked on a multi-year project to improve the reliability and seismic resiliency of the City's water storage west of the Willamette River. Key elements of the project include construction of a new, buried reservoir to replace the existing Reservoir No. 3, and conversion of Reservoir No. 4 into a storm water management facility.

This presentation explores the unique history of infrastructure development in Washington Park, describes major civil works required to construct the new buried reservoir, and discusses a major design challenge – accommodating a large, ancient landslide that has impacted the facility since its original construction. The Portland Water Bureau had operated the two open drinking water reservoirs (Reservoir 3 and Reservoir 4) as part of a gravity-fed water system constructed during the 1890's. A large ancient landslide was re-activated during construction and movement rates were measured up to several inches per week. The landslide is approximately 1,700 feet long and 1,100 feet wide with an average depth of about 100 feet. Structural options to stabilize the landslide were not cost effective, as seismic displacements were difficult to tolerate with rigid solutions. Instead, the new reservoir is located just outside of the actively moving ground, adjacent to the landslide toe. The reservoir will be isolated from continued landslide movements using an innovative compressible inclusion. The performance of the landslide during construction, a key design consideration, will also be discussed.

[It] is the little causes, long continued, which are considered as bringing about the greatest changes of the earth.

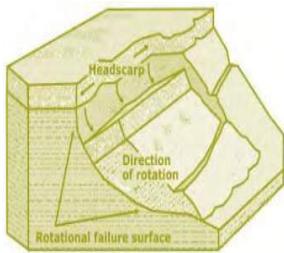
James Hutton



Tom Westover, P.E., MBA



Tom Westover is a Senior Associate Engineer with Cornforth Consultants in Portland, Oregon. His geotechnical engineering experience in the Pacific Northwest and beyond includes high-capacity ground anchors, soil-structure interactions, landslide and rockfall analysis, transportation projects, and dam safety evaluation and modifications. His main interest involves using 3D modeling, data visualization, custom numerical models, and creativity to develop novel, efficient, risk-based solutions for complex geotechnical problems.



Message from the Chapter Chair

Hello Oregon Chapter!

As the dog days of August come to a close, we're looking ahead to a new year of Chapter activities that will (hopefully) all be in-person this year! Thank you again to Mike and Nancy for helping to shepherd the Chapter through COVID, keeping membership steady and flipping back and forth between in-person and virtual meetings as the situation required. I certainly have some big shoes to fill as the new Chair. Luckily Nancy will continue to provide expert guidance as Past-Chair. Ryan Cole will be our Chair-Elect, and Nikos Tzetos will be the chapter Treasurer. Our newest board member, Nick Farny, is joining us as Secretary. Nick is an engineering geologist with Western Federal Lands. He has lived in Vancouver for the last 5 years and is excited to be getting more involved with AEG and the local chapter. Nick will be out in the field in September geologizing, but please plan to give him a warm welcome in October.

In more good news, Old Market Pub has finished repairing their kitchen after April's fire, and we're looking forward to revisiting our old stomping grounds on September 20. Our planned speaker, Pat Pringle, had a conflict come up and unfortunately will not be able to present. He hopes to be able to present at another meeting later this year. Please give a warm chapter welcome to Tom Westover, who stepped up to give a presentation on the Washington Park reservoir replacement project, with a particular focus on the complex site geology.

We are looking forward to having in-person meetings this fall, but we will continue offering a hybrid virtual option for people who aren't yet comfortable attending an in-person meeting. We are going to start charging a small fee for virtual attendees to cover the cost of the chapter Zoom membership and the additional hardware components. Please let me or any of the other board members know if you have any questions or feedback on that.

The AEG Annual Meeting will also be taking place in Las Vegas September 12-17. If anyone planning to attend is looking to have an even better time, the 2023 Meeting Booth is still accepting volunteers! If meeting new people is for you, please contact Mark Swank (mswank@aspectconsulting.com).

Nancy reminded me that this first Chair letter needs to include a brief introduction, so here goes: I moved to Portland a little over a decade ago, and have grown to love the Pacific Northwest. As an Associate Engineer at Cornforth Consultants, I've been lucky to spend my time working on a variety of knotty geotechnical problems. My husband and I have two kids in early elementary school. I suspect I'm successfully indoctrinating them in the wonders of geology because my daughter collects at least one pebble on every hike and stashes it in her sock drawer and my son has a thing for maps.

We're looking forward to seeing everyone again soon over some pizza and beer, and getting the latest environmental and engineering geology news from Las Vegas. In the meantime, be sure to check your membership status at aegweb.org and let me know if you need help with renewal or new membership. Enjoy these first couple weeks of fall!

See you all soon,
Aine Mines
AEG Oregon Chapter Chair 2022-2023



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

Hans Cloos



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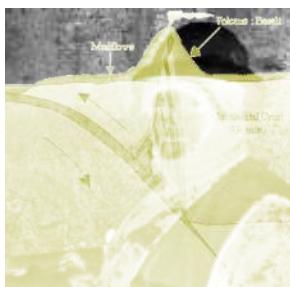
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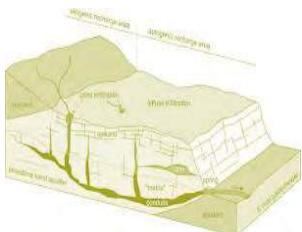
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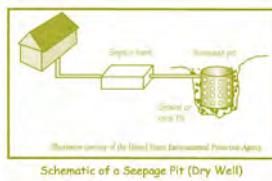
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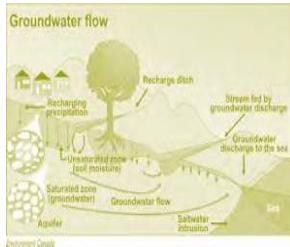


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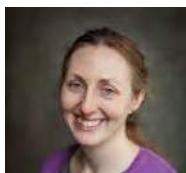
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"A soil adapted to the growth of plants, is necessarily prepared and carefully preserved; and, in the necessary waste of land which is inhabited, the foundation is laid for future continents, in order to support the system of the living world.."

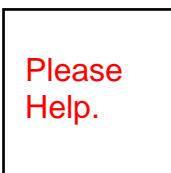
James Hutton



Chapter Officers & Committee Chairs



Chair:
Aine Mines,
Cornforth Consultants , Inc.
aines@cornforthconsultants.com



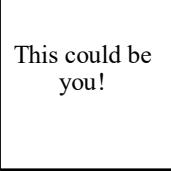
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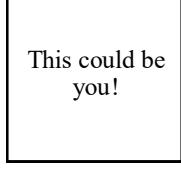
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Cornforth Consultants
SDirringer@CornforthConsultants.com



Chair -Elect:
Ryan Cole
FHWA Western Federal Lands
ryan.cole@dot.gov



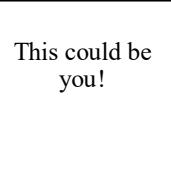
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Nick Farny
FHWA Western Federal Lands
nicholas.farny@dot.gov

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

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Rud Moe
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The AEG Oregon Chapter Newsletter

The Association of Engineering Geologists (AEG) contributes to its members' professional success and the public 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: Aine Mines, AEG Oregon Chapter Chair-Elect, Cornforth Consultants, Inc., 10250 SW Greenburg Road, Suite 111, Portland, OR 97223, e-mail: aines@ccilt.com, phone (503) 452-1100. 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.

