

September 2017
Volume 1, Number 1

NISQUALLY CHAPTER OF THE
ASSOCIATION OF ENVIRONMENTAL &
ENGINEERING GEOLOGISTS

The Official

AEG Nisqually Chapter Newsletter

September Meeting Details

Tuesday, September 12th

Location: 3 Magnets Brewing

600 Franklin St. SE

Olympia, WA

6:00 pm Social

7:00 pm Presentations

Dinner: On your own

\$10 Donation (Member)

\$15 Donation (Non-Member)

Students FREE with RSVP

Exact change appreciated!

Please RSVP by 4 pm Friday,
September 8th to
kate.mickelson@dnr.wa.gov

We will be collecting cash at
the venue on the day of the
event.

Upcoming Meetings:

Oct	3 rd	Bill Gates
Nov	7 th	Tom Badger
Feb	6 th	TBD
Mar	6 th	TBD
Apr	3 rd	TBD

Microbrews and Micro-talks

Introducing the new AEG Nisqually Chapter! For our inaugural meeting, we will be featuring three speakers who will present micro-talks (15 minutes each). The venue is 3 Magnets Brewery in Olympia. We will be hosting the meeting in the Barrel Room—**under age 21 are welcome to attend!** Dinner will not be provided at this meeting but food is available for purchase at 3 Magnets before or during the social hour. Please RSVP (see details on sidebar).

Future meetings will be held on the first Tuesday of the month in the months of October, November, February, March, and April. September meetings are the second Tuesday to account for the Labor Day holiday week. See sidebar for dates.

Groundwater Level and Quality Monitoring in Westport, Washington

Speaker: Mike Piechowski (Robinson Noble)

The City of Westport, Washington produces the majority of their water from an aquifer formed in the shallow sands and gravels of the Westport peninsula. This shallow sand and gravel aquifer is recharged solely by precipitation falling on the peninsula and is surrounded by salt water. As a result, the shallow aquifer, though extremely productive, is highly vulnerable to seawater intrusion. Over the past several years, Robinson Noble has worked with Westport to install and monitor a network of instruments surrounding their wellfields that record water level and specific conductivity. This data indicates that groundwater use results in fluctuations in both level and conductivity, but with the current levels of demand, the winter recharge is more than sufficient to balance the summer demands.

Engineering Geology and Rock Slope Remediation

Speaker: Marc Fish (WSDOT)

Examples of a few rock slope remediation projects along Washington state highways that the Washington State Department of Transportation has undertaken. The use of newer technologies in conjunction with “old-fashioned” engineering geology work has helped our Engineering Geologists gain a better understanding of the surface/subsurface geological processes that are taking place within a slope. Drones, ground based lidar, geophysics, near-real time geotechnical instrumentation, and powerful computer software are used in conjunction with “on-slope” measurements and direct observations. Our engineering geologists collect and analyze the data in order to develop cost effective remediation plans that either stabilize or excavate large unstable blocks or rock or the entire sides of slopes or mountains.



Beyond lidar: alternative technologies for landslide characterization in the field

Speaker: Kara Jacobacci (Washington Geological Survey)

While lidar has revolutionized landslide deposit mapping in the office, the Washington Geological Survey (WGS) has been testing various alternate technologies to improve landslide characterization in the field. Handheld device applications such as Arc Collector and Avenza PDF maps provide an easy, centralized place to record notes, collect spatial data, and geotag photos. In addition, the use of UAVs (drones) allows for reconnaissance of landslides in difficult or dangerous terrain. The WGS attempted a pilot project using drone-based exploration over a debris fan in Entiat, Washington. Where drones lack the ability to see below the surface, physical methods such as dendrochronology, C-14 dating, and soil pits allow for correlation of stratigraphy and age estimation. The WGS has had limited success using Ground Penetrating Radar (GPR) to characterize landslides due to complications with clayey landslide deposits. Using these technologies in conjunction with lidar mapping gives a more complete picture of landslide morphology, age, and type.

Bio: Mike Piechowski

Mike is a Principal Hydrogeologist with Robinson Noble in Tacoma. He is a licensed Hydrogeologist, his career has focused on water supply projects and groundwater resource development. During his 20 years with Robinson Noble, Mike has assisted a variety of clients with the drilling, testing, and rehabilitation of production wells throughout the Pacific Northwest. He has also completed a number of groundwater modeling, groundwater monitoring, and wellhead protection projects in the region.



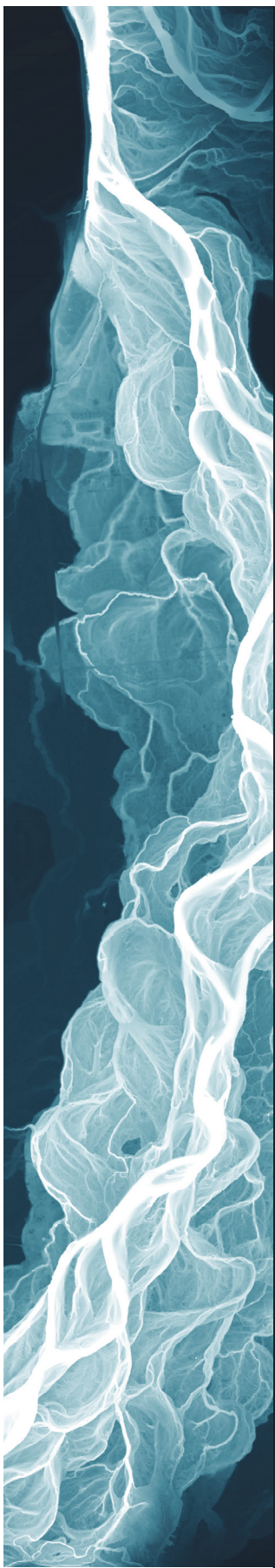
Bio: Marc Fish

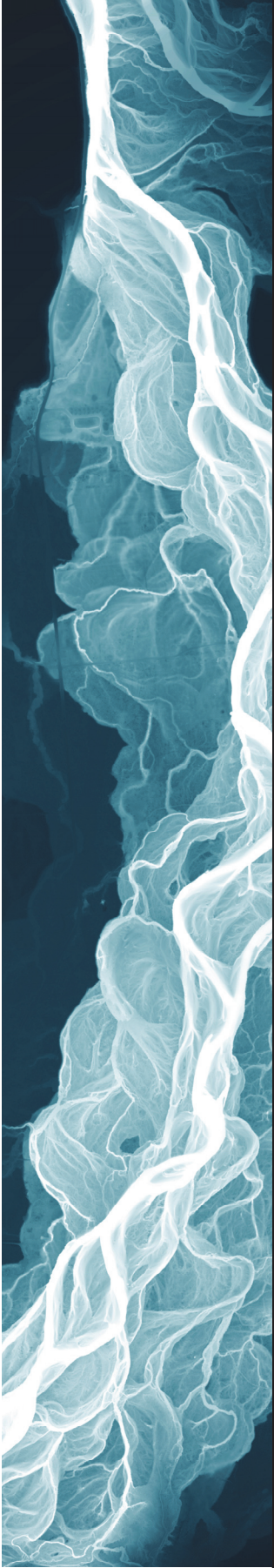
Marc works as an Engineering Geologist for the Washington State Department of Transportation and manages their unstable slopes program. He is a licensed Engineering Geologist and has over 20 years of experience managing risk relating to unstable slopes and developing cost effective remediation designs for rock slopes, landslides, and debris flows along our state highways.



Bio: Kara Jacobacci

Kara is a Geologist-in-Training at the Washington Geological Survey in the Landslide Hazards Program. Before moving to Washington, she was a Masters' student at the University of Maine and an undergraduate at the University of Massachusetts, where she studied landslides and Quaternary geomorphology.





Message from the Chair

Welcome to the inaugural edition of your Nisqually Chapter Newsletter. Without the efforts of several people, this chapter would still be a dream, and we'd all be spending hours in traffic to attend the Puget Sound Chapter meetings. I'd like to specifically thank Ken Neal and Trevor Contreras for their efforts in creating this chapter, as well as all of the people that attended the founding meeting in April. Another huge thank you to the officers that have been so fundamental in getting us to where we are today.

That said, this ride has just started, there is a lot that remains to be done. As members, this is your organization, so please get involved. We've worked hard to get the chapter off the ground, but the Chapter's future is in all of our hands. Please make an effort to get to the meetings. Tell your coworkers and colleagues about AEG and invite them to the meetings; the more, the merrier. Please participate to the degree that you can. Offer suggestions for improvement if you see things that we can do better, we certainly are open to fresh ideas.

It looks like we have speakers and topics lined up for our regularly scheduled meetings through next spring, but as you all know, life happens and things may change. If you have a topic that you'd like to present, please let Marc Fish know.

Mike Piechowski
AEG Nisqually Chapter Chair

Section Officers & Committee Chairs



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Washington Geological Survey
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Student Membership and Speaker
Chair:
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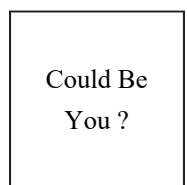
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Field-Trip Chair:

National AEG webpage:
<http://aegweb.org>

The AEG Nisqually 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 NISQUALLY CHAPTER NEWSLETTER is published monthly from September through April. Subscriptions are for members of AEG affiliated with the Nisqually Chapter or other Chapters, and other interested people. E-mail subscriptions are free.

