

NISQUALLY CHAPTER OF THE
ASSOCIATION OF ENVIRONMENTAL &
ENGINEERING GEOLOGISTS

The Official

AEG Nisqually Chapter Newsletter

Meeting Details

Tuesday November 7th

Location: Uptown Grill

516 Capitol Way S.

Olympia, WA

6:00 pm Social

7:00 pm Presentation

Dinner: Pizza and Salad

\$25 Member or Non-Member

\$15 Educators or Job Seekers

\$5 Student

Virtual attendance is free

Well rehabilitation in the lower Columbia River valley: A case study implicating drilling techniques

In 2019, Robinson & Noble assisted an industrial client with drilling, construction, and testing of two large-capacity wells in the Longview, Washington area. Though they met the client's needs, with each well capable of supplying more than the plant's current and future water requirement, they were somewhat less productive than other nearby wells in the same aquifer. Over the following three years, the performance of both wells declined markedly, reaching a point where both wells operating in conjunction were not sufficient to provide the required water for plant operations.

Well video inspections did not identify any fill in the screens or blockage of the well screens. An aggressive well rehabilitation program was recommended, utilizing a surge and bail approach with occasional pumping of the wells to clear the water column, essentially the same approach as was used during the initial construction and development of the wells. Re-development mobilized a considerable amount of fine sand, something that was not seen during the initial construction and development.

Though considerable sand was produced, the well performance also improved significantly. More than five cubic yards of fine sand were removed from each of the wells during redevelopment. After pump reinstallation, testing indicated that the production capacity of both wells was improved far beyond where it was during initial testing to where it was consistent with the other large-capacity wells in the immediate area.

These two wells are the only two recent large-capacity wells in the area that have been drilled with air-rotary drilling. One of the others was drilled with fluid-rotary, the remainder were all drilled with cable-tool. Interestingly – the cable-tool wells were highly efficient to start and have experienced no apparent decline in efficiency (and there are 5 nearby wells of larger capacity all drilled with cable-tool). I'll close this presentation with a discussion of the theory I have as to why the air-rotary wells were less efficient and failed so soon after drilling.

Terraphase has generously offered to sponsor part of our meeting!



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Please RSVP by 4 pm Monday, October 2nd if you plan on attending in person.

RSVP at:

<https://aeg-nisqually.brownpapertickets.com>

COVID vaccination required for in-person attendance

Zoom Meeting Info:

Join Zoom Meeting

[https://us02web.zoom.us/j/83720902821?
pwd=RnlOVUxOcU5SSU02QlRsbE1iQ2J2Zz09](https://us02web.zoom.us/j/83720902821?pwd=RnlOVUxOcU5SSU02QlRsbE1iQ2J2Zz09)

Meeting ID: 837 2090 2821

Passcode: 476888

One tap mobile

+12532158782,,83720902821#,,,,*476888# US (Tacoma)

+12532050468,,83720902821#,,,,*476888# US



Bio: Mike Piechowski, LG, LHG

Principal Hydrogeologist – Terraphase Engineering, Inc.

Mike's a hydrogeologist that has called the south Puget Sound region home for the last 27 years. He earned his bachelor's and master's degrees from the University of Missouri in Columbia, Missouri, and worked for several environmental consulting firms in Missouri and Kansas after graduation. He migrated west in 1996 when he joined the team at Robinson Noble. Over his 27 years at Robinson & Noble, Mike's main focus has been groundwater production wells, and he's had the opportunity to work on some of the largest capacity wells in the region. When Robinson Noble merged with Terraphase Engineering this past summer, Mike was Robinson Noble's Hydrogeologic Division Manager, he's currently defining a similar role at Terraphase.

Sponsorship: Terraphase has generously offered to sponsor part of our meeting!

Thank you Terraphase for your wonderful contribution to our growing organization.



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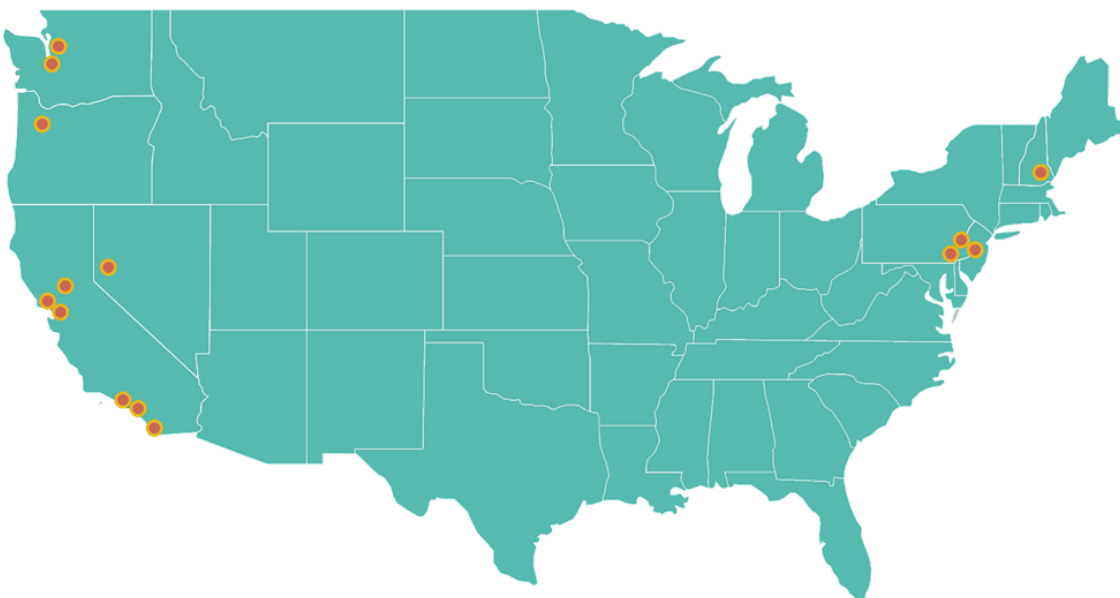
Sponsorship Page:

Who is Terraphase?

Terraphase Engineering Inc. (Terraphase) was founded with the goal of developing a full-service engineering and consulting firm that provides high-quality services to clients with regional and nationwide operations. Our principals and staff provide services for many private clients and public entities. Terraphase has registered professionals in civil engineering, geology, hydrogeology, geotechnical engineering, and stormwater management.

Terraphase is an environmental services consulting firm headquartered in Oakland, California, with 14 offices in 7 states. Our full-service engineering and consulting firm provides water and wastewater utilities with a full range of compliance, geotechnical, environmental, and water resources services, including lead and per- and polyfluoroalkyl substances (PFAS) testing of drinking water, stormwater compliance, tank inspection and testing, utility trench spoils management, and site grading plans.

Terraphase operates nationally with a network of 140+ dedicated professionals.



Message from the Chair

I wanted to thank Uptown Grill and host Michelle for contributing to our organization. They have been amazing to work with and we look forward to growing that relationship over the course of this year.

Our November meeting will be hosted by Uptown Grill in downtown Olympia in the old Batdorf and Bronson coffee house, which is located right next door to Uptown Grill at [516 Capitol Way S, Olympia, WA 98501](https://www.google.com/maps/place/516+Capitol+Way+S,+Olympia,+WA+98501). Look for the AEG signs on the front doors.

It is important to note that parking is limited downtown, so you may want to allow yourself a little more time to find a spot. Conveniently though, street parking is free after 5:00 PM during weekdays, so you don't need to worry about meter time limits.

These meetings can be applied to one hour of Continuing Education Credits. Please email AEGNisqually@gmail.com and we would be happy to provide you with a certificate for this month.

Save the date for our December 5th @ 6pm Social Holiday Gift Exchange at the Uptown Grill location. More information to come.

Current Job Postings:

Job Title (Linked)	Employer	Closing Date
Dam Safety and Well Section Manager (WMS Band 2)	Department of Ecology	Continuous
Hydrogeologist 2 (In-Training) Environment Assessment	Department of Ecology	10/28/2023
Groundwater Quality Hydrogeologist (Hydrogeologist 3) (In-Training)	Department of Ecology (Multiple Hydrogeologist Positions available at various levels)	Continuous

Section Officers & Committee Chairs



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Department of Ecology



Vice Chair:
Calie Rose
Mud Bay Geotechnical



Treasurer:
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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.

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