Ross Powerhouse Rock Slide Emergency, Diablo Lake, Whatcom County, Washington

Guest Speaker: Benjamin George

Seattle City Light (SCL) operates the Skagit Power Project located in the North Cascades National Park (NCNP) near Newhalem, Washington. The project facilities include a series of three dams on the Skagit River: Gorge Dam, Diablo Dam and Ross Dam that provide 17 percent of Seattle’s electrical energy. On the night of March 14, 2010 approximately 16,000 cubic yards of rock failed from a 400-foot tall slope about 1,500 feet downstream of the Ross Powerhouse. The event destroyed an 80-ton and a 100-ton barge landing along with two boat docks utilized by SCL, NCNP, Ross Lake Resort and the general public; and buried an access road between the powerhouse and the top of the dam. This road provides the only access between Ross Powerhouse and the dam for daily operation, emergency equipment and supplies. Access to the Ross facility is only possible by boat and barge across Diablo Lake, so loss of the landings posed a serious operational issue. The failure left the slope in a significantly unstable configuration with several very large overhanging blocks in the upper 150 feet of the scarp and blocks up to 25 feet across scattered throughout the debris pile and in Diablo Lake.

Landslide Technology, a Division of Cornforth Consultants, was asked to evaluate slope stability and provide long-term slope stabilization options. Selected mitigation measures include: extensive hand and mechanical scaling, rock bolting, and reshaping the scarp area using blast techniques. Bid quantities, final design plans and special provisions were developed in cooperation with SCL. A construction contract was awarded on May 11, 2010 and work is expected to continue at least through next year.

Due to the required rope access and the complexity of the project, Landslide Technology was retained to provide on-site technical support to oversee construction and to act as the owner’s representative. Landslide Technology is also contracted to support design and construction of future phases of work, which will include a new ferry landing downstream of the slide, design and construction of a new roadway across the toe of the slide debris, and replacement of the barge/dock facilities destroyed by the slide.
Bio: Benjamin A. George, PE, PG

Ben is a Project Engineer at Cornforth Consultants, Inc., with over seven years of engineering geology and geotechnical experience with an emphasis on geologic hazards. This experience includes mitigating major rockfall and landslide hazards, seismic studies, geologic site reconnaissance, geotechnical and groundwater investigations, soil and rock material sources, mine tailing management, and construction observation. He received his BS and MS degrees in Geology and Geological Engineering from the Colorado School of Mines in Golden, Colorado. Mr. George is a Professional Engineer and a Registered/Professional Geologist.

Message from the Chair

The meeting season has officially started, and I would like to thank Cinthia Hovind for her presentation on The Geology of the Lower Owyhee River. For the October meeting, Ben George of Cornforth Consultants will be presenting on rockfall mitigation.

This year’s annual meeting is being lauded as an overwhelming success, with over 400 attendees. The next annual meeting will take place between September 15 and 23, 2012, in Salt Lake City, Utah. The theme of this meeting is “Ascending to Greater Heights – Elevating Our Profession”, and several field trips, short courses, technical sessions, etc. are being planned. I encourage attendance by all who can make this event, as the technical sessions and symposia can offer perspective on your own practice and it is a great forum to network with geologic professionals from across the country.

During the Board of Directors meeting, the issue of defining a “geoprofessional” was discussed as a current issue. AEG is collaborating with the Geo-Institute of ASCE to develop and refine this definition, as well as Bodies of Knowledge. The intent of this effort is to develop guidelines for education and training and to identify practice areas. While this is generally beneficial for the long term development of our industry, I also think it is critical that defining our field of work is done appropriately. As many recall, several issues were encountered with a similar effort (JTFAP). Based on the experiences of many in Oregon, I think members in our section are well suited to volunteer with crafting this type of document. If interested, please email your contact information to me at kevin@geoconnw.com.

I look forward to seeing you at this month’s meeting.

Sincerely,

Kevin Schleh, R.G., C.E.G.
AEG Oregon Section Chair
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“Keen observation is at least as necessary as penetrating analysis”

Karl Terzaghi

Oregon Department of Environmental Quality News Update

On August 25, 2011, the Environmental Quality Commission approved the repeal of the UST Soil Matrix Licensing Rules (Chapter 340, Division 162.) The repeal became effective on September 1, 2011.

More information regarding the repeal may be found at:
http://www.oregondeq.org/lq/tanks/ust/repealsoilmatrix.htm

Congratulations PSU

PSU Student Chapter won the “Outstanding Student Chapter” Award for the fifth time! The award was started in 2002 so they have won it 5 of the nine years it has been in existence!
### Section Officers & Committee Chairs

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National AEG webpage: [http://aegweb.org](http://aegweb.org)

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The Oregon Section Newsletter

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