The need for automated performance monitoring systems is increasing as the infrastructure in the United States continues to age and site conditions for new project development become more challenging. For critical structures, the safe performance of key project elements is essential to the on-going success of the project. A properly designed and implemented monitoring system can become an important feature of these projects. Six case studies in the Pacific Northwest will be briefly discussed to illustrate the use of automated systems to monitor the performance of critical facilities.

Six case studies will include the following projects:

2. Movement monitoring for repairs to the John Day Lock monoliths.
3. Long term monitoring program for the Washington Park Station elevator shafts.
4. Automated monitoring for Fern Ridge Dam.
5. Real time monitoring for groundwater extraction and treatment system at Gunderson rail car facility.
6. Automated structural health monitoring for Interstate 5 Bridge over the Columbia River.

The discussions will focus primarily on why automated monitoring was selected, and what benefits were derived from its use. These case studies will include the following projects:

- Settlement monitoring for the Interstate 5 elevated structures at the Beacon Hill Tunnel West Portal.
- Movement monitoring for repairs to the John Day Lock monoliths.
- Long term monitoring program for the Washington Park Station elevator shafts.
- Automated monitoring for Fern Ridge Dam.
- Real time monitoring for groundwater extraction and treatment system at Gunderson rail car facility.
- Automated structural health monitoring for Interstate 5 Bridge over the Columbia River.
Bio: Barry Meyers, PE

Barry Myers is the president of Engineered Monitoring Solutions and a licensed professional engineer in Oregon and Washington. He has a Bachelor's and Master's Degree in civil engineering and has been involved in the planning, design, and implementation of performance monitoring and warning system projects for critical civil infrastructure over his entire career. The types of civil infrastructure have included dams, lock structures, landslides, bridges, buildings, underground construction, highways, and watersheds.

Message From The Chair

It’s September already – time to start on autumn tasks (including this message), while there are still too many items on the summer to-do list!

As the section experiences its annual shifting and turn-over in officers, I have the pleasure to offer our collective huzzah! to some of our colleagues for their service in the past year. Michael Zimmerman did a great job as our chief, and I will be relying on him for advice (re AEG procedures, secret handshakes, buried treasure, etc.) over the coming year, as he moves into the past-chair post. Thanks also to Brent Black as he retires (ascends?) from past chair, after his five years on our section board. Double-thanks to Lisa Glonek, for arranging speakers and places to hear them (with the associated food and brews) over the past couple of years; and for climbing onto the totem pole as in-coming treasurer this year. Finally, thanks to Mike Marshall and Roland Brady for stepping into Lisa’s shoes as program coordinators. The section’s operations depend on volunteers, and we have been favored with the service of many capable people – thanks to all! (And we’re always looking for new blood – yours?)

The meeting schedule for 2007-2008 is coming together, and it’s going to be an interesting mix of subjects and speakers. We’ll have our usual joint meeting with ASCE in January, and student night in April; the Jahns lecturer, John Clague of Simon Fraser Univ., will be coming in May. In addition, we’re discussing a road-trip meeting and field trip to Roseburg, to hobnob with our southern Oregon colleagues. Folks in the Washington section are thinking about combining a “field” excursion to geologic-engineering problem sites in downtown Seattle with a Mariners game, and they’ve indicated that we would be welcome to attend.

Unfortunately, I’m going to miss the September and October meetings, after getting myself a fall-semester teaching gig on Tuesday and Thursday evenings – but I’m sure that Jason, David and Lisa will handle the meeting chores with more-than-sufficient panache. (The weird Wednesday meeting in November is for my benefit, so sorry for any inconvenience.) I did negotiate time to attend the AEG 75th Annual Meeting in Hollywood this month (I have to go the board meeting, you know …). I’m particularly looking forward to a field trip to the St. Francis Dam disaster site and La Conchita landslide (see the cover of the meeting program). Hope to catch up with some of you Northwesterners in L.A. – or at our own meetings later in the fall.

Matt Brunengo
AEG Oregon Section Chair
The Oregon Section Newsletter

OREGON SECTION AEG NEWSLETTER is published monthly from September through May. Subscriptions are for members of AEG affiliated with the Oregon Section or other Sections, 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: Bill Burns, OR Section AEG Newsletter Editor, Oregon Department of Geology, 800 NE Oregon Street, Portland, OR 97232, e-mail: <bill.burns@dogami.state.or.us>, phone (971) 673-1555. Electronic media is preferred. Deadline for submittal is Friday three weeks before each meeting. Advertising: business card $10/mo, $100/year; ¼ page $30/mo, $200/yr; ½ page $35/mo, $350/yr. Please notify Bill if you have a change to your email or mailing address.

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Photo of the Month

The September photo is from Bill Burns from the Oregon Department of Geology (DOGAMI). The photo is of landslide on MARS! It occurred along the very steep and high (several kilometers high) escarpment of the Ganges Chasma. The image was collected by the Mars Orbiter.

For more information see http://www.msss.com/

To submit a photo, please email the picture in a JPEG or TIF format to bill.burns@dogami.state.or.us. Also include a short paragraph describing the photo and project.