

# ASSOCIATION OF ENGINEERING GEOLOGISTS

*"Serving Professionals in Engineering, Environmental, and Ground-Water Geology"*

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## THE ROCKY MOUNTAIN SECTION NEWSLETTER

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[www.aegrms.org](http://www.aegrms.org)

### MEETING DATE

**THURSDAY  
MAY 12<sup>th</sup>, 2005**

### TIME

5:45 p.m. Social Hour  
6:30 p.m. Dinner  
7:30 p.m. Presentation

### LOCATION

**Berthoud Hall, Colorado  
School of Mines  
1516 Illinois St.  
Golden, CO 80401  
See map below**

### COST

\$20 Members  
\$22 Non-members  
**Students, Free first time,  
then \$10**

### RESERVATIONS

c/o AEG Reservation Line  
(303) 790-2161 x 243 or  
[meetings@aeqrms.org](mailto:meetings@aeqrms.org)  
**BY NOON, TUESDAY  
MAY 10<sup>th</sup>**

### **Colorado Rockfall Program**

Ty Ortiz, Rockfall Program Manager  
Colorado Department of Transportation

The Colorado Department of Transportation, in recognition of a need to mitigate rockfall hazards along older highway rock cuts, funds rockfall mitigation of sites listed in the Colorado Rockfall Hazard Rating System (CRHRS) at \$1.5M annually. The method of allocating this rockfall mitigation funding is the hazard ranking of the 756 rockfall sites in the CRHRS. As with most rockfall hazard rating systems used throughout the U.S., the CRHRS uses a combination of slope and roadway measurements, traffic data, and geology to characterize those areas considered to be chronic rockfall hazards.

Although the CRHRS is a great tool for characterizing the particular details of roadway cut areas throughout the state that have produced rockfall in the past, there are some locations that require additional characterization due to source locations that extend beyond the roadway cuts. Two areas that require this extra level of analysis are along I-70 in Glenwood Canyon and along Georgetown Hill. Recent rock slides at both of these areas occurred from rock outcrops well beyond the highway right-of-way. Source areas were between 1,500 and 2,000 feet from the road and it is not likely that any type of mitigation could have protected the highway from the slides.

On Thanksgiving morning 2004, a large rock slide in Glenwood Canyon near the west portals of the Hanging Lake Tunnels caused significant damage to the interstate including an approximate 15 foot hole in the bridge deck. The incident closed the highway for a day and a half and permanent repairs took two months to complete.

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In April 2004, a rock slide above the Georgetown Loop Overlook destroyed an existing rockfall and closed I-70 for several hours. Investigation of the destroyed fence combined with the results of a rock rolling exercise on the same slope have resulted in a new approach for mitigating rockfall hazards along this stretch of highway.

## Words From the Chair

Greetings! Thanks to everyone who attended last months meeting. Thanks again to Khamis Haramy for his presentation; it was very interesting and informative.

I am also looking forward to this month's presentation on rockfall from Ty Ortiz of the Colorado Department of Transportation. It should be interesting and I know he has some great rock rolling video.

This will be our last meeting until September and I hope to see a great turnout to finish off the year! Also, remember the Las Vegas annual meeting coming up and plan to attend, it promises to be a great meeting.

Thanks for a great year!

## Opinions on AEG Possible Name Change

We're sure that most of you received the email from AEG, but we just wanted to encourage and remind you to cast your opinion on the issue.

From AEG President, David Bieber:

A name change requires a change in the AEG Constitution, which requires that a ballot be sent to the entire membership. Enactment of the change requires that two-thirds of the ballots returned within the voting period be cast in favor of the change. The AEG Executive Council and Board of Directors would like opinions from the membership regarding the name change issue.

Please log onto the AEG website, go to the AEG Message Board in the Member Services section, and give us your thoughts. If there appears to be a consensus to adopt the modification to our name, then we will put it to a vote of the entire membership.

## Your Business Card Here

The section is looking for companies or individuals who would like to advertise their products or services in the section newsletter and on the website. This is anything from a business card (\$10/month), quarter page spread (\$20/month), to a half page exposition (\$40/month). If you are interested, contact Kristi Ainslie [newsletter@aeqrms.org](mailto:newsletter@aeqrms.org).

## Mudslide Symposium, May 24

The Colorado Geological Survey and Colorado School of Mines are hosting a one-day symposium, "Mudslide Mania," on May 24, 2005, at Mesa State College in Grand Junction, Colorado. It will focus of recent advances in the identification, characterization, and investigation of debris flow and alluvial fan areas, and practical uses of such information from a variety of perspectives. This is a must-attend event for anyone who conducts or uses information from site investigations in debris flow and alluvial fan areas.

The symposium is part of the three-day GSA Rocky Mountain Section annual meeting. One-day and three-day registration is available.

### World Class Tunneling Innovation Developed by Denver AEG Member

Lyman Henn, Inc. of Denver is pleased to announce that one of our principals, Raymond Henn, has recently completed his Ph.D. in Mining Engineering at the Colorado School of Mines. Dr. Henn's research focused on the development of an inflatable circumferential dam system and an inflatable segment support system for use with earth pressure balance and slurry shield tunnel boring machines utilizing precast concrete segmental liner systems. The two inflatable systems are designed to mitigate problems caused by flowing water in the annulus between the excavated rock and the outside face of the precast segments. Flowing water in the annulus can make grout backfilling of the annulus difficult or impossible to achieve; the new systems are designed to improve tunneling productivity under these conditions. The inflatable systems were developed in conjunction with US and European manufacturers of tunneling equipment and material suppliers, and are fully developed for commercial use. For more information, contact Dr. Raymond Henn at [rhenn@lymanhenn.com](mailto:rhenn@lymanhenn.com) or 303.534.5789 x3212.

## Case Histories

The past two years, we have read about very interesting projects from Harry Siebert and Charlie Robinson. We will still be looking for individuals to provide their knowledge and experience to the AEG-RMS community through case histories and articles of interest next year. Please contact Kristi Ainslie at [newsletter@aegrms.org](mailto:newsletter@aegrms.org) any time over the summer if you have anything you would like to share.



We would like to take this opportunity to introduce you to Spectrum Exploration, Inc. We offer Geotechnical and Environmental Drilling services to Colorado (*Denver and Colorado Springs shop locations*) and surrounding states.

**Rock Core Drilling/Packer Testing**  
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Please contact Marc Haes for more information:

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***“Mudslide Mania –  
Characteristics and Geologic Investigations of Debris Flows  
and Alluvial Fans in the Rocky Mountain Region”***

**A Symposium**

GSA Rocky Mountain Section Annual Meeting,  
Grand Junction, Colorado, May 24, 2005

Time and Place

This **full-day symposium** will be held on **Tuesday, May 24, 2005, 8:00 am – 4:00 pm**, at the Weldon Lecture Hall, Wubben Hall, Mesa State College, Grand Junction, Colorado.

It is part of the Geological Society of America Rocky Mountain Section annual meeting, which will have three days of technical sessions (May 23-25) plus optional field trips.

Description of the Symposium

Debris flows (or mudslides, in the popular vernacular) occur on alluvial fans and are common in the Rocky Mountain region. They constitute locally severe geologic hazards that affect human safety and property, yet their triggering mechanisms, flow behavior, and future flow patterns are difficult to predict. There are a variety of end-users of debris flow investigations, each with different needs.

The symposium features 17 invited speakers from a variety of backgrounds and professions. It will focus of recent advances in the identification, characterization, and investigation of debris flow and alluvial fan areas, and practical uses of such information.

The morning session features pertinent characteristics of debris flows in the region, including flow parameters and their estimation, flow modeling, and relationships between wildfires and debris flows. The afternoon session will highlight different types of geologic investigations, the needs of different users of such investigations, and available or needed resources and guidelines.

Costs and Meeting Information

Attendees are encouraged to consider attending the entire meeting and going on one of the optional field trips. One-day and three-day registration is offered. **The last day to pre-register at reduced rates is April 18, 2005.** Register through the GSA web site (listed below).

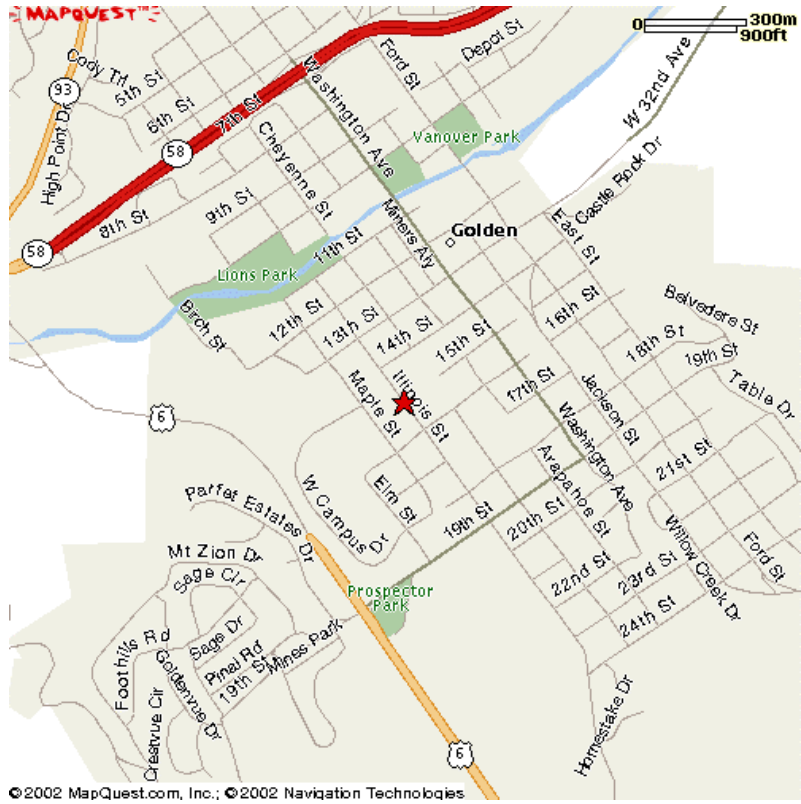
Meeting and cost information: <http://www.geosociety.org/sectdiv/rockymtn/05rmmtg.htm>

Sessions information and abstracts: <http://gsa.confex.com/gsa/2005RM/finalprogram/>

Session Chairs Contact Information

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