

## Association of Environmental and Engineering Geologists

### MEETING DATE

Thursday  
November 4, 2010

### TIME

5:45pm  
Social Hour  
6:30pm  
Dinner  
7:30pm  
Presentation

### LOCATION

Colorado School of  
Mines  
Berthoud Hall,  
Room 205  
1516 Illinois St.  
Golden, CO 80401  
(See Map Below)

### COST

\$25 Members  
\$27 Non-members  
\$10 Students and  
retired members

### RESERVATIONS

[www.aegrms.org](http://www.aegrms.org)  
or email  
[meetings@aegrms.org](mailto:meetings@aegrms.org)

By NOON,  
TUESDAY  
November 2<sup>ND</sup>

## Tunneling through Karstic Rocks – How Engineering Geology Needs Hydrogeologic Input and Logic

Dr. Paul Marinos  
2010 Jahns Distinguished Lecturer



Although limestone and most carbonate rocks exhibit good geotechnical behavior, karstic conditions may induce hazards during tunneling operations and these may evolve into huge problems. Ground water and the crossing of voids and caverns, whether empty or filled, are the main problems. In order to estimate the probability of encountering such conditions and be prepared to face them, a thorough hydrogeological study should complement the traditional site investigation program. This study has to embrace the whole hydrogeologic basin of the karstic aquifer, with background knowledge of the geologic history - the tectonic and paleogeographic evolution. In the lecture, hydrogeologic models are discussed depending on the internal karstic geometry of the aquifer and the position of the tunnel, either in the transfer or the inundation zone. Each model is associated with its own tunneling particularities in terms of hazards and countermeasures.

The measures for the confrontation of the problems are presented and discussed in terms of both groundwater inflow and dealing with voids, filled or empty. In many instances probing ahead of the tunnel face is imperative. The lecture is illustrated by a number of significant recent tunneling experiences from important tunnels around the world.

# Words from the Chair

Greetings Rocky Mountain Section,

I want to thank all those of you who attended our first Section meeting at the American Mountaineering Center. I hope you felt, as I did, that it was a great place to hold our meeting. This month we will be back up on campus and we are honored to have the 2009-2010 Jahns Lecturer Dr. Paul Marinos as our speaker. I hope you are able to join us for what should be a very interesting evening.

Next month we will have our annual social event in place of our typical meeting. Details will be forthcoming on location and date. Also, we are organizing a tour of the Argo Tunnel Treatment Facility in Idaho Springs. Currently we are looking at holding the field trip in March of 2011. The plant offers a fascinating look into how they treat extremely acidic mine drainage bearing a host of heavy metals to water fit to release into Clear Creek. The tour will be technical but is geared to be interesting to both engineering and environmental geologists alike.

Nate Soule,  
Section Chair

## AEG Rocky Mountain Section Ballot for 2010–2011 Special Election

Nate Soule was elected Chair-Elect in September 2009, and is serving as Chair for the 2010-2011 year. Deborah Green took over as temporary Chair on September 9 to represent the section at the 2010 AEG Annual Meeting. This special election restores Nate Soule to Chair, elects a Chair-Elect who will serve as Chair for the 2011-2012 year, and elects a new Secretary to replace Julia Frazier.

### **CHAIR:**

\_\_\_\_ Nate Soule  
\_\_\_\_ \_\_\_\_\_ (*write in*)

### **CHAIR-ELECT:**

\_\_\_\_ Julia Frazier  
\_\_\_\_ \_\_\_\_\_ (*write in*)

### **SECRETARY:**

\_\_\_\_ Sara Post  
\_\_\_\_ \_\_\_\_\_ (*write in*)

E-mail your selections to [newsletter@agrms.org](mailto:newsletter@agrms.org) by November 5, 2010, or vote at the AEG-RMS meeting on November 4 (ballots will be provided at the meeting).

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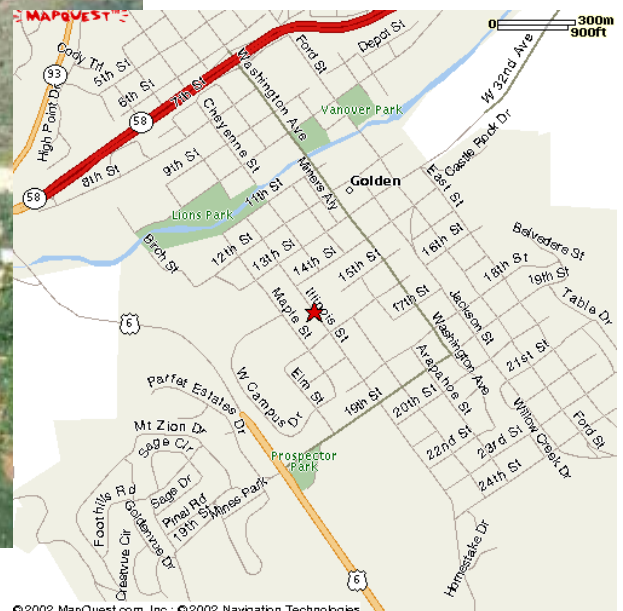
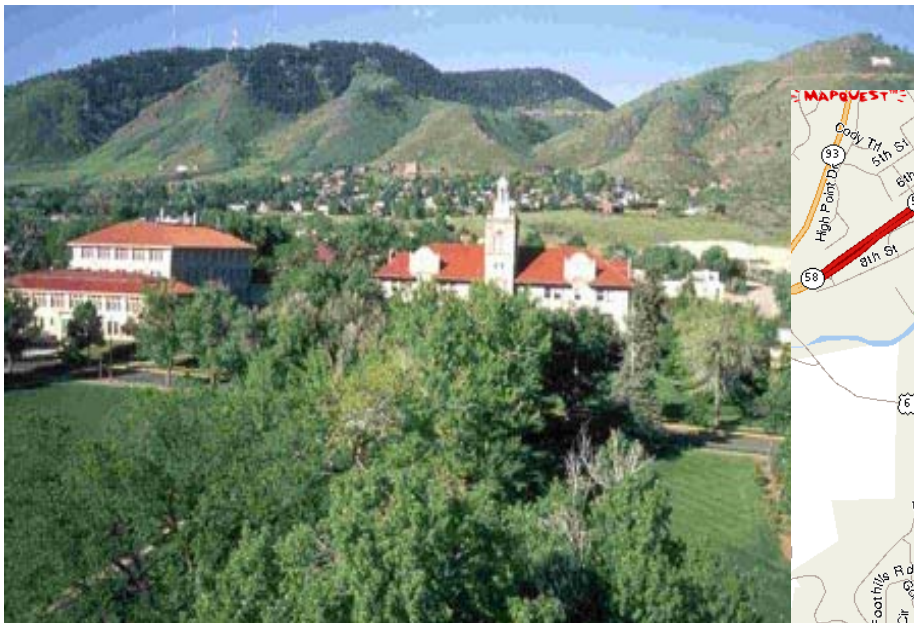
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## Newsletter

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## Past Chair

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