

ASSOCIATION OF ENGINEERING GEOLOGISTS

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

THE ROCKY MOUNTAIN SECTION NEWSLETTER

www.aegrms.org

MEETING DATE

**THURSDAY
MARCH 11, 2004**

TIME

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

LOCATION

**BERTHOUD HALL
2nd Floor**

Colorado School of Mines
Golden, CO
See map below

COST

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

RESERVATIONS

c/o AEG Reservation Line
(303) 790-2161 x 243 or
meetings@aegrms.org
**BY NOON, TUESDAY
MARCH 9th**

The Colorado Earthquake Hazard Mitigation Council (CEHMC)

By Dr. Vince Matthews, Senior Science Advisor
Colorado Geological Survey

The Colorado Earthquake Hazard Mitigation Council (CEHMC) is a dedicated, diverse group of earth scientists who are interested in a better understanding of the earthquake hazard in Colorado. The mission of the Colorado Earthquake Hazards Mitigation Council is to:

1. Provide oversight review of seismic issues, standards, and practices to improve the characterization of Colorado's earthquake hazard and to mitigate the associated risk and vulnerability of Colorado's population and infrastructure to earthquakes;
2. Facilitate the development of, and access to, information on Colorado's earthquake hazard, risk, and vulnerability; and
3. Stimulate and increase awareness of earthquake mitigation activities.

Current and past projects include:

Colorado's role in the Advanced National Seismic System (ANSS)

Developing a Colorado Post-Earthquake Technical Clearinghouse Plan

Advising on the seismic portion of the Colorado Office of Emergency Management's (COEM) Hazard Identification and Risk Assessment (HIRA) document

Preparation of a consensus Colorado Earthquake Fact Sheet

Promotion of the Princeton Earth Physics Project (PEPP) in Colorado

Oversight of preparation of the Colorado Earthquake Hazards Map

Participation in CSM's EPICS program

Participation in HAZUS runs for the City of Denver

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Words From the Chair

What a great way to start off the New Year! The January meeting and Student Night were a great success with over 60 members in attendance for both meetings. It appears that the Vail meeting hangover may be over. Let's keep the momentum going. The remaining talks for this year are set-up, starting with Dr. Vince Matthews of the Colorado Geological Survey. Dr. Matthews is the Senior Science Advisor for the Colorado Earthquake Mitigation Council (CEHMC). The presentation is more of an informational meeting to our members on the purpose and goals of the CEHMC.

The legislation that proposes to move the Colorado Geological Survey (CGS) to the Colorado School of Mines (CSM) has officially been submitted to the current legislative session. The bill has been amended to allow the severance tax to float as it currently does. I am trying to get a copy of the legislation to determine if AEG-RMS can now support the bill. Rumor has it though that wording to reestablish the CGSAB has been removed. If this is the case, then AEG-RMS will likely not support the legislation. Another bill has been introduced to make Yule Marble the official state rock (HB 04-1023). This legislation we due support and coincidently we will have Rex Loesby of the Yule Quarry presenting in May with hopefully a field trip to follow.

On March 3 AEG-RMS will be exhibiting at the 2004 Legislative Reception. The reception this year is themed "Natural Resources Issues in Colorado." We are requesting from all members pictures that we can add to our display in relation to this theme. Please email any photos to chair@aeqrms.org.

I'm sure that most of us have heard that Susan Steele Weir is in the hospital. Apparently her body is rejecting her heart transplant. In order to show our support, the Rocky Mountain Section will be sending a card. The card will be available at the March meeting for all to sign.

RMS 2003-2004 Speakers

April 8, 2004 - *Jeff Keaton, 2004 Jahn's Lecturer*

May 13, 2004 - *Rex Loesby, Yule Quarry Marble Colorado (possible field trip to follow in May or June)*

Webmaster Wanted!

Ed Friend is retiring as webmaster. We are in need of a willing and able body to fill the position. Everything is set-up with the website, so the commitment level would be a few hours a month updating the site. Please contact Ed Friend at webmaster@aegrms.org, Kristi McQuiddy at newsletter@aegrms.org, or Darin Duran at chair@aegrms.org if you are interested or have questions. We would like to get someone lined up in the next month or so before Ed heads out to the field.

2004 Engineer's Week Annual Dinner

Don't Forget: The 2004 Engineer's Week Annual Dinner is on Friday, February 27, 2004. Contact Sam Bartlett if you have any questions or would like additional information at samuelbartlett@aol.com.

Student Night Recap

Student Night went well with very interesting presentations from the four students pictured below. The winner was Elizabeth Roeser from South Dakota School of Mines and Technology with her presentation on "**Hydraulic Geometry Relationships and Process Controls for Select South Dakota Rivers**". Congratulations to Elizabeth and thanks to all the students who participated for their hard work. Also thanks to all the members for their support.



From left to right: Ryan J. Kowalski, Benjamin A. George, Scott L. Miller, and Elizabeth Roeser



Elizabeth accepts her award from Darin Duran— a brand new Brunton Compass

An Engineering Geologist's Experiences by Charles Robinson

Around 1970, the public began to become concerned with development and the environment. A ski area was planned for the Marble area in Gunnison County. The Thorne Ecological Institute was retained to evaluate the impact of the development on the environment, and I was retained in 1972 to map the geology of the proposed ski area (lots of landslides!!).

At about the same time (1971-1975), plans were being made for the development of the Genessee area in Jefferson County. George B. Beardsley and Assoc. were retained for planning. George

received his professional education and training in California, and at that time California required engineering geologic studies for all development. George thought that Colorado should too. On the recommendation of John Rold, State Geologist, George hired me. The professionals working on the project would get together to discuss the planning to minimize the impact on the environment. Some of the ideas that came out of this were incorporated in House Bill 1041.

Starting in 1972 and in 1973, we made a geotechnical and feasibility study of the Eagle-Piney project for the Denver Water Department. The project included a retention dam on Mud Creek north of Wolcott, a diversion structure on the Eagle River, a diversion structure on the Colorado River and a short tunnel to take the water to the reservoir on Mud Creek from the Colorado River, and a 33-mile tunnel to carry the water under the Gore Range to the Dillon Reservoir. We did the geology for all these features, including the supervision of the drilling and seismic studies for the dam on Mud Creek and for the tunnel section in the sedimentary rocks. Preliminary rock mechanics studies were made for the section of the tunnel that would be under pressure.

At this time, John Rold was still making his case for requiring geologic studies for land development. This was also a time of a lot of pressure for development in Boulder County around Louisville and Lafayette. Many areas were underlain by abandoned coal mines and studies of the potential for subsidence had to be made. This work also expanded into El Paso County around Colorado Springs. Also throughout the 1970s, there were many site-specific studies for geologic hazards such as expanding soils, debris flows, rock falls, etc.

In 1974, under the auspices of John Rold, State Geologist, the State Legislature passed House Bill 1041. This bill, in summary, required the Counties of the State to define the engineering geology and mineral resources for land-use planning. Charles S. Robinson and Assoc. received the first contract under this legislation to study the private lands of Eagle County, which

was developing rapidly due to the development of the Vail ski area. At that time I hired William A. Gallant to assist Dale Cochran. The engineering geology and the mineral resources were mapped on portions of 7.5 minute quadrangles. On completion of the mapping, the problem rose on how to present the data so that the county planners and developers could understand the possible impacts on their work. Dale and Bill developed a rating system for each geologic area. The system rated the lands from 1 to 6 depending upon the amount of investigations that had to be made for safe design for any use of the land. Categories would range for such features as a Pleistocene glacial terrace, flat and well drained, that would require moderate investigation for foundation design, to active landslide areas or avalanche paths, which would require extensive investigation for design of safe structures. John Rold told us we should prohibit development of such areas. I told John that NASA had just put a 4-wheel drive vehicle on the moon and I wasn't about to tell any engineer what could or couldn't be done!

Next month, more on tunnels and working for the Highway Department...

Note: We are still looking for individuals to provide their knowledge and experience to the AEG-RMS community through case histories and articles of interest. Please contact Kristi McQuiddy at newsletter@aeqrms.org.

2004 CO-AIPG Legislative Reception

The Colorado Section of the American Institute of Professional Geologists (CO-AIPG) is hosting the Annual Legislative Reception for our State Legislators on Tuesday, March 3, 2004, from 5 p.m. to 7:30 p.m. The Reception will be held at the University Club, 1673 Sherman Street, Denver, Colorado. CO-AIPG sponsors the Reception annually to create an opportunity for geoscientists from industry, academia, and state and federal government to meet Colorado Legislators. The event is designed to be educational for legislators. It is also an effective way of introducing them to potential sources of

geoscience information for future reference and access. No lobbying is permitted at this reception.

The reception theme for 2004 will be "Natural Resources Issues in Colorado".

In addition to providing opportunities for legislators to network with constituents and gather sources of relevant geoscience information, networking also occurs between members of various participating technical societies (past ones include the Association of Engineering Geologists, Colorado Oil and Gas Association, Denver International Petroleum Society, Denver Mining Club, Friends of Dinosaur Ridge, Geological Society of America, and Rocky Mountain Association of Geologists). This event provides a stimulating social venue, outside of the typical single-society technical meeting, for geologists and engineers in the area to meet and discuss Colorado issues. Students interested in professional geology careers, jobs, and state issues also have the opportunity to network with many professionals and legislators at this reception, something that is not possible anywhere else in Colorado.

You are invited to participate in one of several ways:

- (1) Attend as an individual;
 - * Professional - \$27.00 prepaid/\$30.00 at the door
 - * Student - \$8.00
- (2) Co-Host - \$75
 - * Includes two paid entrance fees
 - * Publicity
- (3) Exhibitor - \$150 for non-profit organizations and government agencies only (exhibits should be educational, based on a theme of "Water Resources in Colorado", and relevant to Colorado)
 - * Includes three paid entrance fees
 - * Publicity
 - * Space and table for your exhibit
- (4) PowerPoint slide ad - \$275 Intended for for-profit companies and consulting groups (contact David Abbott at dimageol@msn.com for specific information)

Aspiring Employees

Many resumes from students graduating in the very near future have been received. Employers, please contact Tim Petz past-chair@aegrms.org for information regarding potential employees for summer part-time or full-time work. Students can drop off your information with Tim at the meetings or via e-mail.

Your Business Card Here

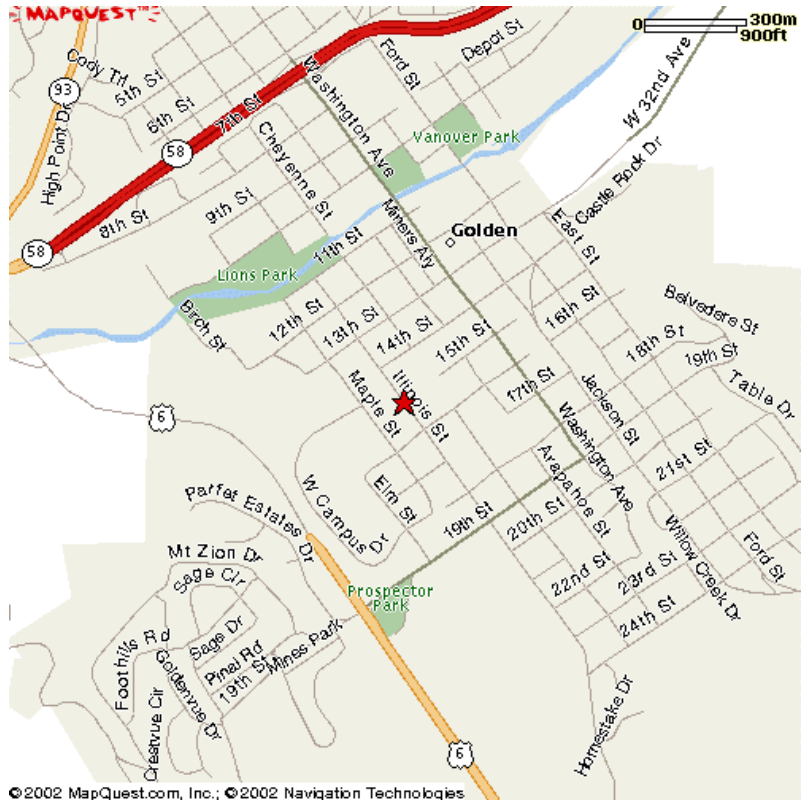
The section is looking for companies or individuals who would like to advertise their products or services in the section newsletter and on the website. This is anything from a business card (\$10/month), quarter page spread (\$20/month), to a half page exposition (\$40/month). If you are interested,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

Parting Words

Remember, there are only three meetings left for the AEG-RMS 2003-2004 season. I'm sure that everyone is getting busy with spring and summer fieldwork starting, but don't let that stop you from attending. There are some good talks left to go!

Hope to see another great turnout in March.

The Editors
Kristi McQuiddy
Ed Friend



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