



Association of Environmental and Engineering Geologists

October 2012 Section Meeting

Thursday, October 11, 2012

American Mountaineering Center, 710 10th Street, Golden CO
Social Hour begins at 5:45

MEETING DATE

Thursday
October 11, 2012

TIME

5:45 Social Hour
6:30 Dinner
7:30 Talk
(All times are approximate)

LOCATION

American Mountaineering Center
710 10th Street
Golden, CO 80401
Conference rooms A & B (across from the climbing wall in the foyer)
See map below

COST

\$25 Members
\$27 Non-members
\$15 Gov't employees
\$10 Students

RESERVATIONS

click: aegrms.org/rsvp
or email:
meetings@aegrms.org

**RSVP BY NOON,
WEDNESDAY
October 10, 2012**

Using Geology, Geophysics & Computers to Locate Clandestine Gravesites – My Life With NecroSearch: A Multidisciplinary Group of Volunteer Scientists and Investigators Who Assist Law Enforcement Agencies in Locating Buried Evidence.

Jim Reed, NecroSearch (www.necrosearch.org)

Jim Reed is the Director of Research & Development at Rockware, Inc., a geological software company located in Golden, Colorado. In 1979, Jim received a BS in Earth & Planetary Geology from Washington University in St. Louis, Missouri, where he was employed as a research assistant on the NASA Mars Viking project and a data analyst for Arch Coal. Jim then spent several years as an exploration geologist for Freeport, AMAX, and Wold Nuclear before founding RockWare in 1983.



Words from the Chair

Greetings Rocky Mountain Section,

I want to welcome Jim Reed of NecroSearch (and RockWare) as our October Speaker! I am eager to hear how a geologist/geophysicist can partner with law enforcement. I would like to announce that our Meeting Sponsor for this month is Dinosaur Ridge; Clare Marshall will be present to share the current status and future plans for the Ridge. Something new this month - we will be featuring artisanal ale crafted by RMS member Dave Glater. As our October Beer Master, Dave will be providing a home brewed Pale Ale for us to enjoy.

I am excited to have been a part of the Board of Directors meeting held during the Annual AEG meeting in Salt Lake City last month. In addition to attending to important Association business, it was rewarding to connect with other board members and compare notes on what is working for all the sections. Membership growth and retention is, for obvious reasons, high on everyone's list. Refer to the Summary of Minutes by Paul Santi included in this newsletter for a detailed review of the meeting.

We vote for Section Officers this month. As mentioned before, we are considering adding a discretionary 2nd year to the Section Chair term. Both Diana Cook (Chair-Elect) and I are open to serving the section in our current positions for another year. We currently do not have the Membership Chair position filled, and welcome any volunteers. We would also like to form a Field Trip Committee, and THANK YOU to Eileen Dornfest and Kami Deputy for already volunteering for this! The goal is at least one, hopefully two, field trips per year.

It is imperative that we find a Legislative Representative for each of the states in our section (Colorado, Wyoming, New Mexico, Montana, South Dakota). We share Montana and South Dakota with other sections and there is likely a chance we can pool efforts to cover legislative reporting in those states. That leaves NM, CO and WY completely up to our section membership. The Legislative Representative would continuously monitor legislation that affects our profession in their state and report this to AEG. In light of recent legislative maneuvers to cut the Colorado Geological Survey, it is very important that we monitor such activity in each of the states in our section. This task would not necessarily take up too much time, maybe 15 minutes per week. Contact me if you are interested or know someone who might be good for this role.

I would like to voice appreciation to the AEG Legislative Support Fund Committee for approving a funds-match which went toward hiring a lobbyist to help with the Colorado Geological Survey (CGS) matter. Moving forward, continuation of lobbyist services are being considered and would help greatly over the next few months. However, these services come at a relatively high price and it is unclear whether the Section or the Legislative Support Fund will be able to cover further expenses. That said, it is important that ALL of us make an effort to get our voices heard, to make sure the decision makers at the Department of Natural Resources, our legislators, and Governor Hickenlooper know we do not want the Survey to be dissolved as proposed. We need to help bring recognition to the services the CGS performs for all types of professionals, homeowners and educators in Colorado. Thank you to all those who have already submitted letters of feedback to the Department of Natural Resources and legislators regarding the threat to the CGS. I would also urge you, if you haven't done so already, to write Governor Hickenlooper (136 State Capitol, Denver, CO 80203) as well; there is still time to have a voice in this matter. John Hickenlooper should have particular interest in preventing the slashing of the Survey considering he is a geologist turned politician!

Julia Frazier
AEG RMS Chair

Summary of BOD minutes, September 2012

The AEG Board of Directors met on September 22 and 23 in Salt Lake City for their Annual Board meeting. They spent a day and a half discussing the business of AEG. While not all of the items are covered in this summary, here are a few of the important things they discussed.

There was a lengthy discussion of budget and finances. We have made three withdrawals from the Treasurers Reserve funds this year to cover cash flow shortages. We have not been able to repay these withdrawals. More withdrawals will be necessary in the near future until our cash flow issues are balanced. Although this is not a good situation and cannot continue, this was the purpose of creating the Treasurer's Reserve account. Other than recent withdrawals, this account has had a fairly consistent balance, although we would expect to have added more to the account over the last three years following very successful Annual Meetings. For FY 11, the EC has done a good job reducing expenses, but because of loss of membership our income is lower than budgeted. Membership numbers have stayed near 3300, but 1100 of those are students, who have joined at about the same rate we are losing paying, professional members. For FY 12, budget had been increased with the expectation of increasing membership and income from other sources, which were not realized. In response, the EC has been active in cutting costs during the year. Cuts were \$25K in April and \$32K in August. Estimated expenses to end of FY12 are approximately \$74K (assuming no more AR is brought in).

A balanced budget was proposed and approved for FY13. It relied on: income projections that matched actual values from past years, targeting a modest surplus to contribute to the TR, better training of the Treasurer, improved tracking of funds, and increased oversight by FC and GC.

AEG Foundation President, **Patty Bryan**, reports that there has been a high level of contributions and growth in each fund, accompanied by a high level of award numbers and amounts. Geoscience library website has been set up and publications are being added steadily (www.geoscilibrary.org). They are also initiating the Cornerstone Fund to assist colleges and universities with the development and continuation of engineering geology programs. They have unanimously agreed to support the Needs Assessment initiative for \$25,000.

Sections presented a variety of successful fund raising methods. A few of these include:

- Run courses in field skills, core and chip logging, rock identification (for civil engineers)
- Hold a boat cruise or river rafting field trip
- Secure meeting sponsorship from local companies
- Ask for annual sponsorship instead of single-meeting
- Ask for corporate sponsors to support student attendance at meetings
- Recruit new members from field trip rosters
- Contact non-renewing members
- Hold raffles at meetings

The Annual Meeting had 466 attendees, and will have an expected surplus in the range of \$40K. There was a large contingent of students (78), which is great for the future of the Association, but led to a large number of complimentary registrations. Short courses and field trips were well subscribed. In particular the multi-day trip to Utah National Parks was very well attended, because it was scenery-heavy and attracted spouses, and the Seismic Hazard Analysis short course sold out.

The 2013 Annual Meeting will be held at the Westin Hotel in downtown Seattle, within walking distance of the waterfront, Pike's Place Market, the Space Needle, and other attractions. Field trips will visit Mt. Rainier, the North Cascades, Whidbey Island, and Central Washington, among other areas. The Power Point presentation advertising the meeting will be posted for BOD access and use.

Summary of BOD Minutes, September 2012, continued.

Future Annual Meeting locations include Phoenix (2014), Pittsburgh (2015), Hawaii (2016, just approved by the BOD), Denver/Boulder (2017). The BOD voted for San Francisco as the 2018 meeting location, which pending approval would be a joint meeting with the IAEG. If the IAEG does not select San Francisco for 2018, then Portland is willing to host the AEG Annual Meeting and San Francisco will try for the 2022 IAEG meeting.

**AEG Rocky Mountain Section
Ballot for 2012-2013 Officers**

Julia Frazier was elected Chair-Elect in November 2010, served as Chair for the 2011-2012 year, and is willing to remain in the chairperson position for the 2012-2013 year. This ballot confirms Julia as Chair for the 2012-2013 year, Diana Cook as Chair-Elect (Chair for the 2013-2014 year), Denise Weinkauff continuing as Secretary, and Jill Carlson continuing as Treasurer. If you have suggestions for next year's Chair-Elect (2014-2015 Chair), or would like to be considered for the position, please inform an officer!

Chair:

_____ Julia Frazier
_____ (write in)

Chair-Elect:

_____ Diana Cook
_____ (write in)

Secretary:

_____ Denise Weinkauff
_____ (write in)

Treasurer:

_____ Jill Carlson
_____ (write in)

E-mail your selections to newsletter@aeqrms.org by November 1, 2012, or vote at the AEG-RMS meeting on October 11.

JOB ANNOUNCEMENT:

Bock and Clark Environmental, a national real estate due diligence and survey firm, is looking to expand and seeks highly motivated full-time staff to conduct Environmental Site Assessments and Property Condition/Physical Needs Assessments.

Experience in the field is not required. Preference will be given to recent grads or those people looking to cross over to the industry to be trained and grow with the company. Experienced persons who can handle dual-scope (ESA/PCA) inspections and reports will also be considered. Exceptional opportunity for advancement within the firm and the industry.

We are looking for those individuals who are tenacious, diligent, resourceful, innovative, and detailed. Generalists who can also dig into the details, i.e. forest and trees. Multi-taskers, with good time management, research, communication and people skills, a willingness to ask for help, desire to learn, high ethical standards and a strong desire to go beyond just "good enough". Strong writing and communication skills and ability to travel are a must. A Bachelors degree in the sciences, engineering or architecture is required. Any background in real estate, finance, construction or property maintenance also a plus.

Ken Feldman
Director, Lender Services
55 Longmont Dam Road
Lyons, CO 80540
303-823-0132
kfeldman@bockandclark.com

BOCK & CLARK – B&C ZONING – B&C ENVIRONMENTAL
One source for ALTA Surveys, Aerial Surveys, Zoning Reports, Property Condition and Environmental Assessment Services Nationwide

Local Geology Field Trips

Eldorado Canyon State Park- Front Door of the Front Range

Eldorado Canyon is a deep and steep-graded canyon where South Boulder Creek cuts its way out of the mountains just south of Boulder. The small town of Eldorado Springs lies just east of the canyon entrance. The entrance to the canyon is the in the southern end of the iconic Boulder Flatirons. The flatirons are made of the red conglomeratic Fountain Formation with the Lyons Sandstone on top. Both formations are tilted about 30° and strikes roughly north-south in the typical “hogback” fashion of the east edge of the Front Range. The flatirons are thicker here than elsewhere in the Front Range because the Fountain Formation contains much more gravel in this area than it does elsewhere making it much more massive and resistant to erosion. West and stratigraphically underneath the flatirons is hills of quartzites and gneisses of the Precambrian Boulder Creek Orogeny. One ridge of resistant quartzite trends roughly north-northeast in accordance with the regional stress regime of the Front Range and makes an easy-to-see structural geology orientation demonstration where it intersects the flatirons at an opposing angle.

This entrance to the canyon is a very popular rock climbing area and can be crowded at times. From the entrance the park road goes up into the canyon rather steeply and the creek just north of the road is filled with cascades over the many large boulders from the cliffs of the flatirons and the hills behind them. There are several trails that go up on the sides of the canyon and are not very strenuous. These trails take you to many less obvious things in the canyon. There are several talus slopes and steep side canyons and views of the continental divide far west of the park. There are the remains of old mines and even an old hotel displaying the human

history of the area. Above it all on the south side of the canyon is the old Denver and Rio Grande Railroad which is still actively run by BNSF. It can be surprising when during a hike you hear a loud roar and look up to see a coal train descending the hills above you! These trails are great to explore and also connect to several Boulder County parks to the east and west allowing for a thirty mile hike or bike ride if someone was so motivated.

Directions- Take CO-93 south from Boulder. About 1 ½ miles south of the city turn west on CO-170 to Eldorado Springs. CO-170 ends at the town of Eldorado Springs but continue on this road through the town and it becomes the main road through the park. The visitor center is at the very end of this road. There is an \$8 daily use fee or the Colorado State Parks Pass (\$70 per year) can be used. The park has a very detailed website with good maps at www.parks.state.co.us/Parks/EldoradoCanyon



Fountain Formation cliffs at the “entrance” to Eldorado Canyon. Lyons Sandstone is seen half in the shadow of the left of the cliff on the right. The park road is at the base.



Flatirons with a quartzite ridge intersecting their base displaying the two major orientations of Front Range rock.

AEG–RMS Board of Directors

Chairperson

Julia Frazier
Independent Consultant
chair@aegrms.org

Secretary

Denise Weinkauff
Engineering Analytics
secretary@aegrms.org

CSM Student Chair

Carlos Hernandez
student-chair@aegrms.org

Chair-Elect

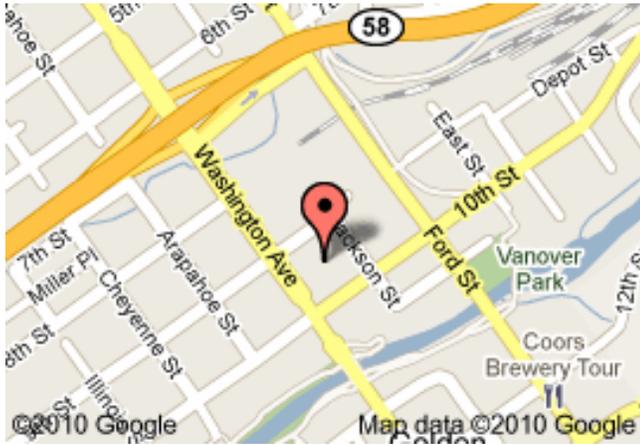
Diana Cook
Tetra Tech
chair-elect@aegrms.org

Past Chair

Nate Soule
Brierley Associates
past-chair@aegrms.org

Newsletter

David Bernard
newsletter@aegrms.org



Upcoming Meetings

November 8th – John Fontana, Vista Geoscience:
In Situ Chemical and Biological Remediation Systems
Using Injection and Hydraulic Fracturing Technologies

December 13th – Social Event and Family Night:
Topic TBD- Ideas welcome!!!

January 10th – Zonge Geoscience:
Recent 3d Geophysical Work



Call for Papers

Environmental & Engineering Geoscience

4 issues per year

All papers are peer reviewed

Best Paper Award

Best Student Paper Award

**Environmental & Engineering Geoscience journal
invites your manuscript based on novel case
histories and original research dealing with the
following disciplines:**

- Environmental geology
- Engineering geology
- Geotechnical engineering
- Geomorphology
- Low-temperature geochemistry
- Applied hydrogeology
- Near-surface processes

**As well as review papers in applied geosciences
and Technical Notes (< 6 pages)**

**Instructions for Authors are available at
<http://eeg.allentrack.net/>**



GeoTrends: The Progress of Geological and Geotechnical Engineering in Colorado at the Cusp of a New Decade

November 9, 2012

Dear Colleagues:

The Steering Committee for the 2012 Geotechnical Seminar would like to invite you to attend the upcoming geotechnical seminar titled "Rocky Mountain Geochallenges: Rising to Geotechnical Challenges in Colorado". This seminar is a continuation of the biannual series presented by the Geotechnical Group of the ASCE Colorado Section, CAGE, AEG, and the ASCE Geo-Institute. It will be presented on Friday, November 9th, 2012 at the Sheraton Denver West Hotel located at 360 Union Boulevard in Lakewood. The goal of the seminar is to enhance the technical knowledge of local geotechnical engineers and geologists in areas of current regional interest. To increase the influence of the seminar, the proceedings will be published nationally by the Geo Institute of ASCE in a Geotechnical Practice Publication.

Please fill out and return the enclosed information to Mark Brooks at the address indicated on the form or via e-mail at mbrooks@semaconstruction.com. Pre-registration discounts are available through October 22, 2012.

For questions related to conference registration, exhibits, and/or sponsors, please contact Becky Roland (staff@coloradoasce.org) or Mark Brooks via the e-mail address indicated above. If you have questions with regards to the conference please contact Joe Kerrigan, (Joseph.Kerrigan@paccoast.com).

With best regards,

The Geotechnical Seminar Steering Committee



GeoTrends: The Progress of Geological and Geotechnical Engineering in Colorado at the Cusp of a New Decade

November 9, 2012

GEOTECHNICAL SEMINAR

Organization: _____

Please indicate (one form per registration):

- Early Registration (before October 22) \$120
- Late Registration \$150
- Student Registration \$ 35
- Sponsor (includes 1 registration) \$300
- Exhibitor (includes 1 registration) \$500
- Add Lunch / Break Sponsor (in addition to sponsorship above) \$400/\$200
- Corporate Registration (includes 2 registrations and sponsor) \$550
(Additional Corporate registrations are \$115 per person)

Name: _____

Address: _____

Phone: _____

E-mail: _____

A check payable to "ASCE Geotechnical Seminar" – Tax Identification Number (TIN): 84-0005100

- Is enclosed
- Will be sent under separate cover by _____ (Date)

Please mail responses and checks to:

ASCE GEOTECHNICAL SEMINAR
c/o SEMA Construction, Inc.
ATTN: Mark Brooks
7353 S. Eagle St
Centennial, CO 80112