

SUMMER 2013

# GEONews

Newsletter of the Association of Environmental & Engineering Geologists, Carolinas Section  
*2009 and 2011 AEG Section of the Year*

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**GeoNews** is a publication of the Carolinas Section of AEG.

There are four issues per year, with deadlines and issue publication dates listed below. We publish news of the profession, announcements, student member news, technical articles, and job openings.

**Deadlines for submittal to AEG Carolinas GeoNews***(can be flexible depending on events)*

Spring – deadline March 1, issue date March 21
Summer – deadline June 1, issue date June 21
Fall – deadline September 1, issue date Sept 21
Winter – deadline December 1, issue date December 21

**Deadlines for submittal for the National AEG News:**

March issue – January 15
June issue – April 15
September issue – July 15
December issue – October 15

**AEG Carolinas Section .....Current Officers and Contacts**

Chair .....	Paul Weaver, P.G., <a href="mailto:pweaver@espassociates.com">pweaver@espassociates.com</a>
Vice Chair .....	Alex Rutledge, P.G., P.E., <a href="mailto:frutledge@schnabel-eng.com">frutledge@schnabel-eng.com</a>
Treasurer ...Briget Doyle, Ph.D.,	<a href="mailto:bdoyle@uscupstate.edu">bdoyle@uscupstate.edu</a>
Secretary .....	Madeline German., <a href="mailto:madeline@smithgardenerinc.com">madeline@smithgardenerinc.com</a>
Membership Chair .....	Jake Sarna, <a href="mailto:jsarna@espassociates.com">jsarna@espassociates.com</a>
Student Liaison.....	Rick Kolb, <a href="mailto:rick.kolb1@gmail.com">rick.kolb1@gmail.com</a>
Social Committee Chair .....	Adam Phillips, <a href="mailto:aphillips@prismlabs.com">aphillips@prismlabs.com</a>
Past Section Chair ....	Rick Kolb, <a href="mailto:rick.kolb1@gmail.com">rick.kolb1@gmail.com</a>
Advisor .....	Jennifer Bauer, <a href="mailto:jennbbauser@gmail.com">jennbbauser@gmail.com</a>
Advisor .....	Gary Rogers, <a href="mailto:grogers@schnabel-eng.com">grogers@schnabel-eng.com</a>

**AEG Carolinas Section Website**.....[www.aegcarolinas.org](http://www.aegcarolinas.org)

Webmasters .....	Tami Idol, <a href="mailto:tami.idol@ncmail.net">tami.idol@ncmail.net</a>
.....	Brad Isles, <a href="mailto:bcisles@gmail.com">bcisles@gmail.com</a>

**AEG National Website**.....[www.aegweb.org](http://www.aegweb.org)**GeoNews Editor**

.....	Jennifer B. Thomas, P.G. (2012-present)
(704) 491-7724.....	<a href="mailto:jenthomas08@live.com">jenthomas08@live.com</a>
Past Editor .....	Jane Gill-Shaler, P.G. (2003-2012)
.....	(336) 883-0170; cell (336) 687-6144
.....	<a href="mailto:JaneHGillShaler@gmail.com">JaneHGillShaler@gmail.com</a>
.....	<a href="mailto:janehgill@stanfordalumni.org">janehgill@stanfordalumni.org</a>

**Cover:** (Dr. Charles Welby) Chott Dejerid salt flat in Tunisia. Camel caravans in the past would try to cross the salt lake, marshes and desert and would disappear -- presumably by sinking into the soft sediments. The Tunisian government built a road across the Chott Dejerid in the not too distant past. The picture shows the road structure and the adjacent salt flats.

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**MESSAGE FROM THE CHAIR**

By Paul Weaver, PG,  
Chair—AEG Carolinas Section

On March 12 and 13, AEG President Matt Morris and I participated in the Science, Engineering, and Technology (SET) Congressional Visits Days (CVDs) in Washington, NC. We met with congressional staffers in the offices of Senator Kay Hagan of North Carolina, Senator Robert Casey of Pennsylvania, and Representative Howard Coble of North Carolina. We also met with Mr. Dave Wegner, who is the senior staffer of the House Transportation and Infrastructure Committee/Subcommittee on Water Resources and the Environment. Our focus in these meetings was to emphasize the importance of federal funding for SET initiatives. You can read a more in-depth article about our visit to Washington in the June AEG News.

The Carolinas Section held our spring meeting at Sparian's in Raleigh on March 28. We were very pleased to have around 75 people attend this meeting. AEG/GSA's 2013 Jahn's Lecturer, Jim McCalpin, was the speaker and he gave a very informative talk on LiDAR. As in year's past, we will be planning a section meeting in Asheville around the first part of September and another in Greensboro the latter part of October. You'll be sent more information on these meetings once the planning is finalized.

I attended the AEG mid-year board meeting in Denver, Colorado on May 18 and 19 (see the summary of the mid-year board meeting on page 11 of this edition of GeoNews). The mid-year board meeting typically consists of an all-day business meeting on Saturday followed by a half-day planning session on

Sunday. This year, the typical schedule was turned on its head with an all-day strategic planning session on Saturday followed by a half-day business meeting on Sunday. The reason for the long strategic planning session was to plot the course we want AEG to follow in the coming years (i.e.: what do we want AEG to be, what do we want to represent, and what do we want our governance structure to look like?). I'm sure you'll be hearing a great deal over the coming year regarding the initiatives that were "hatched" during this meeting.

The AEG annual meeting will be held in Seattle, Washington on September 8 through 15 this year. If you have never attended an AEG annual meeting, I strongly urge you to do whatever you can to attend the meeting this year. There is nothing like being able to spend part of a week conversing with colleagues from all over the country, going on field trips to see the geology of other parts of the country, and listening to presentations running the gambit of geological subjects. It's easy to register; just go to [aegweb.org](http://aegweb.org) and follow the links for annual meeting registration.

The Carolinas Section preliminary proposal to host the 2019 AEG annual meeting in Asheville, North Carolina was approved at the mid-year board meeting in Denver. I now must put together a formal proposal for presentation at the national board meeting following the annual meeting in Seattle. For the formal proposal, I will have to list the Chairs for vital meeting committees, our plans for advertising the meeting, how we will address transportation issues, and many other items so that Asheville will be accepted as a viable location for the 2019 meeting. If any of you reading this article would like to get involved on the ground floor of an exciting opportunity, please contact me as soon as possible.

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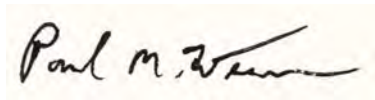
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(Continued from page 3)

We always need energetic, enthusiastic volunteers to keep our section vital. Thank you all for your membership and support of the Carolinas Section. As always, please feel free to contact me at the email address listed below with any ideas, concerns, comments, etc. that you have for AEG and the Carolinas Section in particular.

Sincerely,



Paul M. Weaver, P.G.  
AEG Carolinas Section Chair  
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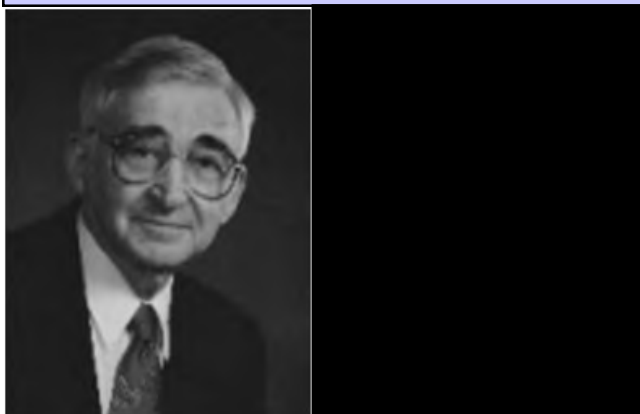
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## NGWA LIFE MEMBER PASSES AWAY

*Reprinted from the National Ground Water Association Newszine*



NGWA Life Member Harry LeGrand, 95, passed away March 21 in Crossville, Tennessee.

Following graduation from the University of North Carolina with a degree in geology, LeGrand served in World War II as a captain in the First Army. He was in the Normandy invasion and the Battle of the Bulge. LeGrand was a groundwater scientist with the U.S. Geological Survey for 30 years and since 1974 was a consulting hydrogeologist. Over a span of 55 years he had nearly 100 published reports and scientific papers in national and international journals related to groundwater, including NGWA's [Groundwater](#).

LeGrand served as vice chairman of NGWA's Technical Division Board of Directors in the mid-1970s before he had it changed to the Ground Water Technology Division. He received the NGWA Life Member Award in 1987, presented to retired members, or members of retirement age, who have contributed a special service in the furtherance of the groundwater industry or to NGWA. In 1975, LeGrand received the M. King Hubbert Award, presented to a person who has made a major science or engineering contribution to the groundwater industry through research, technical papers, teaching, and practical applications. In his final years LeGrand reduced his consulting business to devote more time to public service related to groundwater issues. In his work he traveled throughout the United States and to many foreign countries.

*(Continued on pg 21)*

## NEW POETRY FEATURE

Harry LeGrand was a prolific writer including poems about hydrogeology. Starting with this issue we will be running a Harry LeGrand poetry series in GeoNews.

### Listen to the Aquifers

With elegant awe we view Piedmont and mountain land,  
And its underground counterpart we try to understand.  
The animated hidden ground water has much to say.  
Looking closely, we see how the water game will play.

Beneath all of the slopes of every mountain valley,  
And under more Piedmont slopes than we can tally,  
Ground water moves at its preferred pace,  
Never interested in some competitive race.

Under the soil and into rock's winding fractures,  
Always seeking springs and lowland apertures,  
Trickling below elusively for tens to hundreds of weeks,  
Ground water moves steadily toward nearby creeks.

The aquifers are bounded by hilltops and adjacent streams.  
Further limited by deep unfractured rocks, each seems  
Ready to cope with global warming and our water need,  
But our greedy habits don't abide by the aquifers' creed.

In a trough between adjoining aquifers is each river or creek.  
Aquifers nourish and pamper them and try not to let them leak.  
Furnishing water to streams during long periods without rain  
Is a big responsibility that aquifers try to maintain.

A true environmental pulse is each aquifer's water table.  
Down in dry weather and up in wet weather is a nice label.

*(Continued on page 6)*



(Continued from page 5)

As each aquifer is small, modest in yield, and not tightly connected  
Over-pumping of ground water regionally is not to be expected.

As each aquifer may be sensitive to abuse by us,  
It can spitefully fight back and raise a fuss.  
When water is overused or contaminants are in its path,  
An aquifer has several ways to boldly express its wrath.

Not easily adaptable to human regulations,  
Aquifers behave with their own deliberations.  
The aquifers are talking, but do we listen?  
Are there valuable lessons we are missin'?

Our forefathers expected pristine ground water everywhere.  
Now, the hidden sea of ground water is pocked here and there  
With a plume of contaminated ground water from each waste site.  
Spreading and mixing of good and bad water is now a sorry plight.

Local aquifers refuse to cooperate with urban sprawl.  
Dense population creates waste, and aquifers have gall.  
Some aquifers are poisoned each month and can never come back.  
Sustainability of all good ground-water supplies is not on track.

As surface water supplies weaken in a drought  
Well water from aquifers may continue to spout.  
Groundwater storage may lessen but can still

bring

Water supplies to be replenished by the coming spring.

In emergencies that may arise with unforeseen disaster

Places for special pure water we may need to get faster.

Here and there is a pristine spring in a v-shaped valley

For us to appreciate and around which we can rally

Hill and dale, linked mini-aquifers everywhere surround us.

Translations of landscape and geologic thoughts are a plus.

Topographic maps help us to view aquifers in a splendid way.

We now see how each aquifer's underground game can play.

The underground landscape offers new scenic views,  
And exploring with aquifers offers a creative cruise.  
To look under ground with art in virtual reality,  
One can see nature's handiwork and its vitality.

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## AEG CAROLINAS SECTION 2Q TREASURER'S REPORT

By Dr. Briget Doyle, Section Treasurer

December 31, 2012 to March 31, 2013



### BALANCE As Of December 31, 2012

Checking Account	\$3,939.67
Savings Account	<u>\$16,671.15</u>
	<b><u>\$20,610.82</u></b>

### INCOME

Dinner Meetings	
Dave & Busters, Concord, NC	\$1,020.00
Sponsorships	
Eleven Sponsors	\$3,375.00
Interest	
Savings account	<u>\$2.05</u>
<b>SUBTOTAL - INCOME</b>	<b>\$4,397.05</b>

### EXPENSES

Dinner Meetings	
Concord, Raleigh	\$2,920.67
Shipping	
Ship AEG Vests to Denver, CO	\$49.32
Webpage Expenses	
Web Design	\$157.50
GeoNews Expenses	
Software	<u>\$438.64</u>
<b>SUBTOTAL - EXPENSES</b>	<b>\$3,566.13</b>

### BALANCE As Of December 31, 2012

Checking Account	\$4,768.54
Savings Account	<u>\$16,673.20</u>

**TOTAL** **\$21,441.74**

## GEORAMBLINGS: Adventures in Tunisia

By Dr. Charles W. Welby,  
Former AEG Carolinas Section Chair

This issue of the GEORAMBLINGS column is concerned with some of the things that I observed during a recent trip to Tunisia with a "GO BEARS" group of alumni. We wandered through Tunisia in early April looking at various cultural features and trying to understand not only current events but also some of the past history of the area as well as toward the end of the trip the role of Carthage in the history of the Mediterranean Sea. The basic landforms in the Tunis area created some good harbors for the war galleys of the Punic and Roman times. (A Naval History course I once took had some interesting discussions of the battles on the Mediterranean Sea in "those times.") Slaves were the main motive power.

The trip to Tunisia provided some interesting roadway/roadside geology as the tour group made a loop of sorts from Tunis to the southern part of the country and back to Tunis.

Since much of Tunisia lies in the shadow of the Atlas Mountains, which are part of the European Plate, much of the southern part of Tunisia is on the dry side, and there is only one identifiable river. However, the fact that one can observe gullies coming across the landscape in many places, many of which have water in them, there has to have been in the past a fair amount of moisture to carve them and possibly there is some baseflow into them. Some of the erosion is generally attributed to deforestation of the historical past although one might speculate from other similar periods of gully construction elsewhere in the world that they are related to presence of wetter climate conditions.

One can observe in many places folded rocks underlying mountains and ridges and capped by horizontal beds which appear from the distance to be alluvial deposits. A "close-up" look of one such arrangement can be found behind the hotel where we stayed in Tozeur.

Also, as one drives along roads in various valleys that approach individual ridges, one can ob

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serve that the alluvial deposits have slope breaks suggesting two or more periods of alluvial fan construction. In places in eastern Oregon one can find similar relationships between the mountains and the alluvial fans at their bases.

Groundwater is used in the northwestern part of the country for agricultural purposes, and as one passes through the area one can see the spray irrigation of the crops, especially wheat. Northwest Tunisia was the “breadbasket” for Rome. Roman aqueducts were constructed to move water to important places and in particular to the Roman Baths. We see a similar arrangement in the far west of the U.S. and especially California where aqueducts move water from Northern California to Southern California.

Abundant and interesting “souvenirs” from the desert areas of Tunisia are the “desert roses” of gypsum. They are prominently displayed at rest stops and gift stops as one enters the Chott Dierid, a large dry salt lake basin.

One of the most interesting stops was at the mountain oasis of Chebika. I decided not to take the hike down into the canyon of the oasis but rather sat in a small café/ gift shop with a cup of cappuccino and looked at and took pictures of the mountains above the oasis. One can discern the folding of the beds and some faulting in the sedimentary rocks. Mass wasting along the side of the canyon in which the oasis lies is “controlled” by a wall of brick-sized rock blocks.

Often the question concerning how people provide for housing at a particular place arises. In the case of a part of Tunisia the people live in caves because of the shortage of construction materials and also because the caves provide relatively cool abodes in the hot summer and warm abodes in the colder parts of the year. We had the opportunity to visit a Berber village, Matmata, which is an underground residential area. The construction in the relatively soft sediments is to dig a large pit into the ground which serves as a courtyard open to the sky and then to dig a sloping tunnel down from ground level for access to the courtyard. Side rooms are then tunneled off from the courtyard to provide the bedrooms. What little rainfall occurs in the area is caught in the cisterns in the courtyard to supply do-

mestic water needs. Some of the underground houses were used for early filming of the *Star Wars* movie.

One interesting excursion was on the *Red Lizard Train* which we took from Metlaoui Selja. The train runs through the narrow, geomorphically spectacular Selja gorges to the location of the phosphate mine which produces one of Tunisia’s main mineral products for use within the country as well as for export. Compared to Libya, Algeria, and Morocco, Tunisia possesses a relatively small total oil and gas production. Some of the production comes from offshore fields in the Mediterranean Sea on the eastern side of Tunisia and a westward extension of the Sirte Basin which is a major producer of petroleum in Libya to the east.

Friends were concerned about my visiting Tunisia because the “Arab Spring” began there. Tunisia depends economically so much upon tourism and the Arab Spring demonstrations are gone, although occasional strikes for higher wages occur. So Tunisia is relatively safe for tourists. People are friendly, appreciative of visitors, and like many tourist economies, depend upon the visitors spending time in the Medinas, or market places, touring the pottery shops for a demonstration of pottery-making as well as carpet shops for carpets and demonstrations of carpet making, and as a result purchasing some of the products offered.

We did have to change our schedule a bit towards the end of the visit. The planned visit to Bizerte had to be deleted because of some demonstrations there. It is my understanding that much was made of the demonstrations in the U.S. Newspapers in a fashion that might suggest some major political unrest. The truth of the matter is that the demonstrations were made by soccer fans of the Bizerte soccer team when they found out that the team had not been invited to a national (international?) soccer tournament. A hypothetical example in the U.S. might be demonstration by Duke University’s students and fans when their team had not been invited to the NCAA national championship basketball tournament.

QED

*Charles W. Welby*

*Dr. Charles W. Welby is a former Section Chair for AEG Carolinas and a regular contributor to this newsletter. He may be reached at [cww\\_ral@hotmail.com](mailto:cww_ral@hotmail.com).*



## CONFERENCE ON VAPOR INTRUSION IN THE SOUTHEASTERN UNITED STATES

*By Rick Kolb, Section Student Liaison*

Our section held a successful conference on shale gas in North Carolina last year, in partnership with the American Ground Water Trust. Over 175 attendees from a wide variety of backgrounds attended that conference. In light of its success, our section is planning a conference for this fall on vapor intrusion (VI). Interest in VI is heightened this year as a result of EPA's publication of proposed guidance for vapor intrusion and a revision to ASTM International's E 1527-05, the standard practice for Phase I Environmental Site Assessments. This revision, which is expected to be released later this year as E 1527-13, will now include review of potential VI conditions as part of the Phase I, whereas in the present version it is an add-on service.

We will hold the VI conference at the Brownstone Hotel in Raleigh, where we held the shale gas conference. It will be a one- to two-day conference with presentations by a variety of invited professionals on technical, practical, and legal topics related to VI. The North Carolina Department of Environment and Natural Resources has agreed to be a co-sponsor of the conference and provide one or two presenters. We anticipate participation/presentation by personnel from EPA Region IV and other state regulators in the southeast as well as practicing professionals and attorneys. We expect attendees will include real

estate developers, brownfield redevelopers, regulators, environmental and real estate attorneys, and environmental geologists and engineers. We plan to offer discounted admission to the conference for employees in the public sector and students members of AEG.

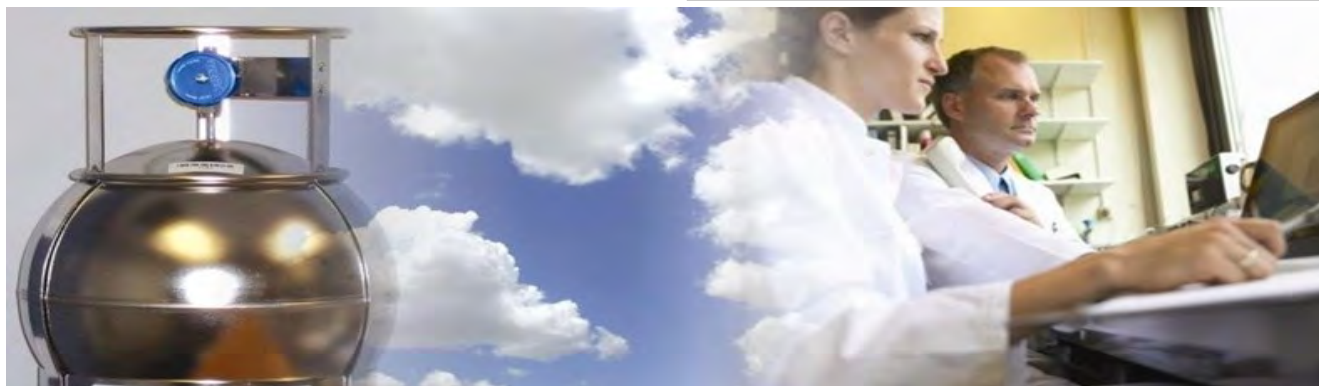
The planners for the conference are **Brian Smith** of Hart & Hickman, **Tom Veratti** of Con-Test Analytical Laboratory, **Elizabeth Depoy** of Cardno ATC, **Walt Plekan** of URS, **Angie Frizzell** of ARCADIS, **Maddie German** of Smith Gardner, and **Rick Kolb** of Duncklee & Dunham. We have been holding monthly meetings to plan the conference agenda, speakers, and venue, and plan to finalize the agenda and prepare the announcement later this summer. You will receive the meeting announcement as an email, and it will be in the fall edition of the newsletter. If you have any thoughts on what presenters you'd like to see or presentation topics you'd like to hear, contact one of the planners. Their email addresses are on the AEG website, [www.aegweb.org](http://www.aegweb.org).



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## JAHNS LECTURER JIM MCCALPIN VISITS THE CAROLINAS

*By Rick Kolb, Section Student Liaison*



The Jahns Lecturer visited our section for the seventh consecutive year this past spring. The lecturer for 2012-13 is **Jim McCalpin**, an engineering geologist in Colorado. Jim presented an afternoon talk on LiDAR and an evening talk on the stability of slopes on ski areas at Furman University in Greenville, and his talk on LiDAR at UNC-Charlotte and at our spring section meeting in Raleigh. **Dr. Suresh Muthukrishnan**, a professor at Furman University, wrote that “we had a packed room for Jim's talk. It was a great presentation and we all enjoyed hosting him. Thanks for keeping Furman in the loop for such great presentations.” Jim had opportunities to meet with faculty and staff during his day at Furman, where he had lunch and dinner in addition to making presentations. Jim writes that he picked up a Furman University tee shirt while at the school.

We timed Jim's visit to follow his visit to the Southeastern Section of AEG, where **Matt Howe**, the section chair, was his host for presentations at the University of Georgia, Georgia Tech, and the University of West Georgia. After these presentations, Matt drove Jim to Furman and stayed with him for through lunch. Section Treasurer and AEG Foundation member **Briget Doyle** joined Jim for dinner. After his day of presentations, Jim then took the midnight train to Charlotte. Following what was a short nap, section chair **Paul Weaver** picked up Jim at his hotel and took him to UNC-Charlotte for his morning presentation, and then to Raleigh for the

section meeting at Sparian's, where he was able to meet with many section members and student members.

After returning to Colorado, Jim wrote, “I had an enjoyable time in the Carolinas and was gratified by the size of the audiences, particularly the number of students. And I have been getting quite a few looks here in Colorado when wearing my T-shirt from Furman, with the big “FU.” Thank you, Suresh. I'll be at the national AEG Meeting in Seattle, so just look for the guy with the FU shirt.”

Jim did not send us a picture of him in his Furman tee shirt, but we've included two photos from his presentations at Furman and the section meeting.



## GEOLOGIC EXPLORATION

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## AEG MID-YEAR BOARD OF DIRECTORS MEETING

By Paul Weaver

The AEG Board of Directors met on May 18 and 19 for their Mid-Year Board meeting. A significant portion of the meeting was spent reviewing the Needs Assessment survey data and completing strategic planning exercises to begin working with the results of the Needs Assessment.

The Needs Assessment was completed this spring by LRC, a firm who administers and interprets professional surveys, supported by funds from the AEG Foundation and the Environmental and Engineering Geology Division of GSA. We had a very high response rate on the surveys, indicating a strong engagement of our membership and providing high statistical confidence in their results. The summary report provided by LRC is extensive and fascinating, and is available to anyone interested. Some of the major points follow.

Among professional members, the most vulnerable issue is the perception of value of Association membership. Among students, there is vulnerability in their likelihood of renewing. Members could be divided into three groups: Networking focus (48%), Information and Education focus (39%), and Mentoring focus (14%). Among students, there are two groups: Financial benefit focus (58%, i.e., scholarship eligibility) and Networking / Mentor focus (42%, i.e., job prospects).

Our highest rated offerings are Shlemon conferences, AEG Foundation, field trips, and Annual Meetings. Closely following that group are AEG

News, section experiences, and overall value. Some of the lowest evaluations are for the website and dues. Continuing education was identified as an important driver in the future, and we need more online opportunities, more geographic diversity, better communication about opportunities, and more offerings in general.

Members say that the important issues we will face in the next 3-5 years, which should inform the direction of AEG, include licensure, recognition by the public, and attracting students. LRC also points out that a large portion of our membership will be retiring and we are not compensating fast enough, we have a lack of visibility and perceived value, licensure is important and a vulnerable area (to protect ourselves from infringement of other professions), and members and students are worried about long-term job security.

They suggest that to capitalize on both engagement and performance, we should focus resources on Shlemon conferences, the website and continuing education. Things we could improve with low resource commitment include customer service and networking opportunities. An area where we need to maintain performance (we are already doing well) is the Annual Meeting, but we do need to improve attendance.

Long-term opportunities need to focus on licensure support and defense, public visibility, and value of the profession. We can do this through collaboration with other geo-organizations, with boards of education, with politicians, and with the media. To accomplish this work, we may have tapped out our current volunteers, but early and late career members may be underutilized. Early careers members may be looking for short term, non-travel intensive volunteer opportunities.

The Board of Directors governance model may not be the most effective. Some potential modification to consider would be: eliminate the section requirement but replace with subject matter experts, reduce the number of BOD members, and/or increase the tenure of BOD membership (to reduce difficulties caused by frequent turnover).

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The strategic planning exercises helped identify some of our highest priority items, which include member benefits, effective leadership and resource development, optimizing revenue generating activities, improving governance structure, enhancing communication, meetings, and technical expertise and resources.

The rest of the meeting focused on Association business. Here are some of the highlights:

- We approved three new student chapters: the University of Southern Mississippi, University of California-Berkeley, and the University of Washington.
- Under operational committees, the Messaging and Membership committee is ramping up and could benefit from new volunteer members.
- Under Technical Working Groups, the Sustainability committee has been inactive and could use chairs and members to get things going.
- Preparation for future Annual Meetings is going strong, thanks to many energetic volunteers, with meetings planned at in Seattle 2013, Phoenix 2014, Pittsburgh 2015, Hawaii 2016, Denver 2017, and in conjunction with the IAEG in San Francisco 2018 (if the IAEG selection committee does not choose San Francisco, Portland will propose to host our annual meeting in 2018).

AEG is recovering stability financially: the total amount in our operating accounts is just under \$250,000 as present. The Treasurer's Reserve account has approximately \$227,000. This amount is rising steadily from growth, but there were several withdrawals last year to correct our cash flow issues. No additional withdrawals are anticipated. For FY 2012, we experienced a \$14,000 loss, which was a substantial correction over the \$85,000 loss in 2011. Cost savings and revenue efforts during 2012 (approximately \$100,000) have provided the improvements we expected. For 2013 to date, the overall budget is very close to target, and no losses are anticipated. Membership and sponsorship income are close to budget, but advertising income is slightly behind budget (it usually catches up at the end of the year when payments are due). AEG In-

sider advertising and job board income are above budget. Periodical expenses are slightly above budget (partly because of decision to produce an all-color journal). Administration fees are close to budget.

For the AEG Foundation, the total balance in all funds is \$983,464. In case you are unaware, Foundation funds are growing at an impressive rate, due to the brilliant management of the Foundation Board and the generous support provided by AEG members! This year we gave out \$24,900 in awards, in addition to \$25,000 given for the Needs Assessment. No research grants were requested this year - members are encouraged to apply (<http://www.aegfoundation.org/funds/research.php>).

Overall, our governing Board is an energetic and diligent group looking out for the best interests of AEG. We need a steady stream of volunteers at all levels in the Association, so we encourage members to figure out what parts of AEG are important to them and then to get involved!



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**AEG CAROLINAS SECTION  
BOARD MEETING MINUTES***By Madeline German*

Roll Call 3:05PM – Paul Weaver (Chair), Alex Rutledge (Vice Chair), Briget Doyle (Treasurer), Madeline German (Secretary), Rick Kolb (Past Chair), Adam Phillips (Social Committee), Jane Gill-Shaler (Sponsorship Committee), Jen Thomas (Newsletter), Tami Idol (Website)

Guest: John Michaels

All 5 members of the Carolinas Section Board of Directors were present – Quorum obtained

Briget provided the Carolinas Section Treasurer's Report

Currently in checking - \$6,781.55

Savings- \$16,673.89

Total Carolina's section - \$23,455.44

Both Alex and Briget have a few checks to deposit.

No progress has been made on establishing a section budget. Alex will take charge to get this established.

Need to start providing a printed Treasurer's report at every meeting.

Remaining section meetings for 2013

The Asheville meeting is proposed for early September. Rick has contacted Susan Kelly (AMEC) who works in Asheville about coordinating with Paul. Paul also recommended Judd Mahan who helped set up last year's Asheville meeting.

Paul will set up for the Greensboro meeting at the end of the year. Please send speaker ideas his way.

Social Committee

Adam volunteered to organize a camping trip/field trip to the mountains this year. He is doing research on possible campsites near Mt. Mitchell. The camping trip will be a "kid friendly" trip over two nights, with a geology themed visit during the day on Saturday.

Section Field Trip Committee

Rick had a suggestion for an individual to fill the Field Trip Committee Chair. Paul will contact him and try to bring him on board.

The Field trip originally planned for the fall had to be canceled. Jim Stroud had been working with Tyler Clark and Skip Stoddard on a Geology of Falls Lake Trail field trip for last year but it had to be canceled due to time constraints. If we can find someone to coordinate with Tyler and Skip, we might be able to put this field trip together for sometime this fall. Gary recommended a geologic field trip down the upper section of the New River Gorge, in northern NC. Adam is researching this field trip option as well.

Annual membership renewals

Paul has current member roster and will be receiving updated rosters from national monthly.

Carolina's Section did well this year with getting regular members to renew.

Paul will send Rick the current member roster so he can follow up with the Student Members.

Everyone needs to continue to talk up AEG to colleagues and business contacts to try and increase our member numbers.

Visiting Professional Program

Rick provided a brief summary of our VP program for this last school year. Six colleges were visited (Radford, Chapel Hill, UNC-Charlotte, Furman, NC State, Wake Tech and ECU. Presentations generally went well but, as always, we are learning ways to improve. Rick will be writing an article for the newsletter summarizing this year's school visits. He is also working on schools for next year and is hoping to include Clemson and UNC-Wilmington.

Sponsor Renewals

Jane provided a status update regarding sponsor renewals for 2013

Both Platinum Plus sponsors renewed

Two Platinum sponsors renewed

Five Gold sponsors renewed

Fifteen Silver sponsors renewed, plus three new sponsors

The group agreed we need to establish rules regarding how long we continue to list sponsors in our Section materials when sponsor payments for the year have not been received.

Jane will be taking a leave from her position of "sponsor chair" and the section is looking for a volunteer to secure renewals and process new sponsors. Most work occurs in October and November when the annual renewals are due. Please volunteer or submit suggestions to Alex. Paul said he can possibly take this on if we cannot find another volunteer.

Newsletter

Deadline for submittals to the next newsletter is June 1, 2013.

John Michaels will be taking over the calendar from Rick.

Website

Paul will contact Brad Isles regarding removing the home page announcement and job postings from the website. Suggested using the newsletter cover photo on the webpage so there won't be empty space.

We would like to establish an up-to-date job posting on the Section website. This will require establishing

*(Continued on page 14)*

*Continued from page 13)*

a point of contact to compile the jobs received and send them to Brad. Potentially add to the Secretary position duties.

Start announcing at meetings for members and sponsors to submit available jobs to the contact person. Also send out one or two notices a year asking sponsors if they have available jobs they would like to post and keep an active ad in the newsletter requesting companies submit available job positions. Will need to establish designated period for posting, to ensure website is current.

#### Brewpub socials

Although there was some level of participation in the brewpub socials in 2012, it was not enough to warrant the time and effort required to organize and advertise them. Therefore, we will not be sponsoring these again for the foreseeable future.

#### 2019 AEG National Meeting

The National Board tentatively approved Asheville for the national meeting in 2019 at the May mid-year board meeting. Paul must put together a formal proposal for presentation at the national board meeting in Seattle. No competition from other locations for that year. Paul has templates from upcoming national meetings and other proposals.

Issues to be addressed include transportation (direct flights). It was also suggested that we try to find other national professional organizations to participate in the meeting. GWP, rock mechanics, other members of AGI such as AIPG (fall meetings), SAGEEP (but they have spring meetings), ARMA (but they had their 2009 annual meeting in Asheville in June) were discussed.

#### To Do:

##### Talk with Asheville tourism bureau

Determine best dates for meeting and check with other national conferences to make sure there are not conflicts

Secure Renaissance hotel in downtown for chosen dates

Paul will be sending out a list of the committee chair positions that need to be filled for inclusion in the formal proposal.

#### Credit Card Hardware/Software for Accepting Credit Card Payments

Briget presented findings on three options for the mobile credit card reader. All three options had no set up fees and no up-front reader cost.

##### 1. Intuit – Go to Payment

Large size

Works on iPhone, iPad, Droid and tablet devices

No up-front purchase price (2.75% transaction fee if slide/ 3.75% transaction fee if key in)

No annual contract

Password protected

No minimum transactions per month

Also provides access to web interface

Can work on multiple devices (download app)

Works with Intuit software

Does not provide receipts

##### 2. Square

Small device

Works on iPhone, iPad and Droid devices (not droid tablets)

Sends electronic receipts

Have to specifically log out every time

Supposedly bad customer service

##### 3. Pay Anywhere

Works on iPhone, iPad, Droid Phone and Blackberry

2.69% transaction charge

Emails receipts

No minimum transactions per month

Lock button

No reviews were available for the PayPal reader.

Briget made a motion to order an Intuit- Go Payment reader for use at section meetings that can also be used for membership and sponsor renewals. Alex seconded the motion and it was passed by the board with zero dissenting votes or abstentions.

Briget will order the device and will look into if there is an additional cost for a second reader, and if it is nominal, get two to save on shipping costs.

#### Mid-year board meeting in Denver on May 18

Almost all day on Saturday was spent in a strategic planning session. We defined who we are, what we want to be, and a path for moving forward. One of the main decisions was to restructure the make-up of the national board. We anticipate that changes will be made so that national board members will no longer necessarily be Section Chairs, but a new structure for the board will be decided on that will make the board smaller in size and probably with longer terms to eliminate the current situation of people coming in who are unfamiliar with the national structure, then leaving the board as soon after attending only two board meetings. The national board is working to change the culture of AEG and hopes to vote on these changes at the national meeting in Seattle.

National AEG finances are looking better and we will start rebuilding the Treasurer's Reserve fund, which was used to cover shortfalls in income over the last few years. They anticipate a relatively small loss, if not a break-even, for 2013 and are currently planning the 2014 budget.

#### Annual meeting in Seattle

*(Continued on page 21)*





## Aggressive Fluid Vapor Recovery Trailer (AFVR)

Enviro-Equipment, Inc. (EEI) is pleased to announce the construction of another Aggressive Fluid Vapor Recovery (AFVR) Trailer, also referred to as Dual Phase Extraction (DPE) and Mobile Multi-Phase Extraction (MMPE). While we have sold AFVR Trailers to clients in the past, we now plan to stock AFVR Trailer units for rental or subcontracting. Clients have the option for as little or as much assistance from EEI as they require. Options range from renting and operating the system yourself to subcontracting EEI to do your entire AFVR event.

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- Progressive Cavity Transfer Pump with Manifold and Totalizing Flow Meter
- Manifold allows pumping from KO Tank to Storage Tank AND Pumping From Storage Tank through Totalizing Flow Meter to discharge point simply by adjusting valves
- Vapor Phase Carbon Drum for Off Gas Treatment
- Ultra Silent Diesel Generator, 230volt 3 Phase, Push Start, Auxiliary 115 and 230V Outlets
- Galvanized Steel Inlet Manifold, 3" Header, (7) 2" Zones with Ball Valve and Vacuum Gauge
- Multiple Sampling Ports
- UL Listed Control Panel

EEI also carries all of the necessary accessories for AFVR events including "tanker truck" cam lock hoses, vapor phase granulated activated carbon media, thermo anemometers, photoionization detectors (PID), flame ionization detectors (FID), well head assemblies and stinger piping.

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## EDUCATION SECTION

### UNCC GEO CLUB AND AEG STUDENT CHAPTER NEWS

*By Suzanne S. Ching, President - UNCC GEO Club/AEG Student Chapter*

The 2012 Fall Semester saw many of our GEO Club/AEG Student Chapter members at the University of North Carolina at Charlotte focusing much of their attention on the GSA Annual Convention being held in Charlotte, NC from November 4th - 7th, 2012. In January 2013, we began the year with the Student Organization Showcase. New buttons were created by our own resident artist, Christina Bo, and active membership ranks increased to a total of 30 students. In February, Jennifer Aldred, PhD student, conducted a caving event in Lewisburg, WV for interested students. Later that same month, GEO/AEG students were invited to attend the February 19th showing of SWITCH, The Movie, sponsored by the Energy Production and Infrastructure Center (EPIC) at UNC Charlotte. After the movie, a question and answer period was held, with our GEO/AEG members asking a number of questions. On Friday, March 8th, an all day Fracking Forum was attended by a number of our undergraduate and graduate students. Our members took this chance to interact and network with professionals in the natural gas industry while discussing the future of fracking and the possible environmental issues currently being considered as fracking becomes a reality in North Carolina. April was a busy month and started with a Visiting Professionals Event on April 4th. Attended by 50 students from various disciplines, professionals

provided PowerPoint presentations followed by question and answer sessions.



GEO Button designed by Christina Bo.

The NC Science and Technology Festival, held on Sunday, April 21st, was attended by area school children, their parents, and many of our UNCC students and faculty. Our members, along with a few meteorology students, manned tables to answer children's and parent's questions about minerals, rocks, tectonics, and both weather station and seismic station operation.



AEG members at NC Science and Technology Festival

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## EDUCATION SECTION

### EARTH DAY AT UNCC

*By Suzanne S. Ching, President - UNCC  
GEO Club/AEG Student Chapter*



The UNCC Annual Earth Day Event was held on Wednesday, April 24th. Companies and public agencies from around the Charlotte-Mecklenburg area of North Carolina participated in the event to encourage awareness for clean water, clean air, recycling, etc. GEO/AEG members played their part in emphasizing water flow management and awareness using a stream table. April also saw the recognition of at least six of our members at the Annual Department of Geography and Earth Sciences Student Awards Reception for exemplary grades and scholarship.

The 2012/2013 year was a very busy and productive year for the GEO Club/AEG Student Chapter at the University of North Carolina at Charlotte. The culmination of the Spring 2013 semester long membership drive saw the submission of 29 new AEG student membership applications.

Going forward, as the need for trained and licensed geologists and environmental scientists increases, it is the UNCC GEO Club's hope that we can encourage the continued membership and scholarship of interested students in the AEG with an eye towards the needs of the future!



AEG members at the UNCC Annual Earth Day Event



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## EDUCATION SECTION

### EDUCATION NEWS FROM CAROLINA GEOLOGICAL SURVEY

*By Randy Bechtel, Carolina  
Geological Survey*

The 2013 North Carolina Outstanding Earth Science Teacher (OEST) and Educator (OESE) winners will be announced soon!

The Combined Educational Meeting of the **NSTA and NCSTA is November 7–9, 2013, Charlotte, N.C.** Many events are in the beginning stages of planning including the OEST and OESE awards presentation and a Rock Giveaway.

**National Science Teachers Association (NSTA)** Area Conference [www.nsta.org/conferences/2013cha/](http://www.nsta.org/conferences/2013cha/) will be combined with **North Carolina Science Teachers Association Professional Development Institute (NCSTA-PDI)** [www.ncsta.org/](http://www.ncsta.org/)

**North Carolina Essential Standards** [www.ncpublicschools.org/acre/standards/new-standards/](http://www.ncpublicschools.org/acre/standards/new-standards/) These revised standards were implemented this school year (2012-2013).

National Guidelines – **Next Generation Science Standards (NGSS)** [www.nextgenscience.org/next-generation-science-standards](http://www.nextgenscience.org/next-generation-science-standards) were released in April and finishing touches are being added to the documents. You can view the NGSS arranged by: Disciplinary Core Idea (DCI) [www.nextgenscience.org/search-standards-dci](http://www.nextgenscience.org/search-standards-dci) OR by Topic [www.nextgenscience.org/search-standards](http://www.nextgenscience.org/search-standards)

North Carolina was one of the 26 lead-state partners that assisted in the development of these new standards. Since N.C. just adopted its own revised science standards last school year (2012-13)(a.k.a. Essential Standards), it is still to be seen if, and when, our state will adopt these new rigorous standards of the NGSS.

### 2012-2013 VISITING PROFESSIONAL PRESENTATIONS

*By Rick Kolb, Section Student Liaison*

Our section continued a tradition we began in 2007 with visits to geology departments at several universities during the 2012-13 academic year to make presentations on careers in geology. These presentations provide students an overview by practicing professionals of what jobs are out there in the consulting world and public sector. We thank this year's presenters for volunteering their time to educate students of geology on career opportunities. Without volunteers, these presentations, and all that AEG does to support our profession, would not be possible. The following table summarizes our visits for the past academic year:

School	Presenters
Concord University	Alex Rutledge
East Tennessee State University	Jennifer Bauer, Susan Kelly, and Adam Tripp
Furman University	Jennifer Bauer, Paul Johnstone, Rick Wooten
Methodist University	Paul Weaver, Dave Brown, Rick Kolb
North Carolina State University	Ann Borden, Kenneth Taylor, Nathan Mohs, Rick Kolb
Radford University	Steve Pond and Drew Thomas
UNC-Chapel Hill	Brad Worley, Rick Bolich, Rick Kolb
UNC-Charlotte	Joanna Harbison, Kristen Lloyd, Rick Kolb
Wake Technical Community College	Bill Moore
Western Carolina University	Susan Kelly and Brett Laverty



**Drew Baird, P.G.**  
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## EDUCATION SECTION

Although Concord, East Tennessee State, and Radford are not located in states within our section, we visited those schools because of their proximity to the Carolinas Section or because faculty at the school asked us to present. Steve Pond and Drew Thomas, members of the Baltimore/Washington/Harrisburg Section, volunteered to visit Radford because none of our members could make it this year. Drew is also treasurer of the BWH Section. UNC-Wilmington requested we visit every other year, so we skipped this year, as we did with Appalachian State. While East Carolina University had requested a visit initially, we never got on the same page to pick a date, so we skipped that school this year, too.

Rick Wooten of the North Carolina Geological Survey also presented at the University of Georgia. Matt Howe, Southeastern Section Chair, set up the presentation date, and Rick drove down from Asheville to present with Matt.

Alex Rutledge, vice-chair of our section, is from West Virginia. Concord is in Athens, West Virginia, on the way home for Alex. He wrote of his visit:

*I spoke to about 20 geology majors and the physics class also attended (~20 more students). AEG provided the typical pizza and soft drinks. It was interesting for me because all of the geology students were from West Virginia, and two of them were from the same, small, unincorporated town in which I grew up. Because of this, I feel the students related to me quite well, and hopefully listened a little more.*

*I spoke about careers in engineering geology, and what day-to-day responsibilities they might expect to encounter within the first few years of their career and longer term. I also presented general career*

*advice, and tips on resume preparation and interviews. The talk was well received by the students, who had lots of questions, and a few stuck around to talk with me for about half an hour after the talk. Dave Matchen, the geology professor that recruited me for the presentation, was very happy with the talk and would like to make it an annual event. He said alternating between a general career-type talk and a more technical talk would be good.*

Bill Moore, whom many of you know from his years at NCDOT, presented for his first time, to geology students of Gretchen Miller at Wake Tech. Bill said it went well and wrote a summary of his visit:

*Think I talked for about an hour about engineering geologists relationship with engineers, specifically what is the role of the geologist and learning to communicate with engineers, about drilling, the SPT, soil classification, rock coring, RQD, etc. The group of 20+ seemed interested, asked questions, and was very interested in the drilling methods and rock core. Some had never seen rock cores before. It was really about some of them trying to decide if they wanted to go on to study geology, as they only get two geology courses at Wake Tech. Gretchen put in a good word for AEG as an organization that supports education.*

We made a presentation for the first time at Methodist University during the fall semester. While they don't offer a degree in geology, a faculty member I met at the regional GSA meeting in Wilmington was interested in having us visit. Our presentation was well-received, as evidenced by the number of students who approached us afterwards to ask questions. Due to a clerical error, students in the Science Acad-

(Continued on page 20)

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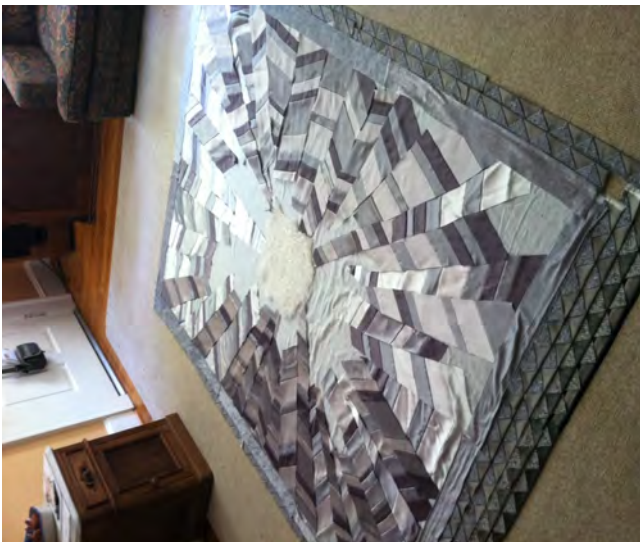
## EDUCATION SECTION

(Continued from page 19)

emy at Cape Fear High School in Fayetteville drove to Methodist on the wrong evening and thus missed our presentation. Rick Kolb made a visit to their high school in the spring semester to make four presentations on careers in geology. That was quite a different audience from college students.

Our student/faculty audiences range in size from a handful at the smaller schools to 40 at the larger schools. As we'd done in the past, we bought pizzas and soft drinks to kick off our presentations, which generally started on Thursday afternoon between 5:00 and 6:00, and we finished before 8:00. Partly as a result of our visits to these schools, the Carolinas Section now has over 100 student members. Through the generous support of our section's sponsors, we continue to pay for dinners of student members at our quarterly section meetings. These meetings provide an invaluable experience for students to network with practicing professionals.

If you attended college in North or South Carolina, we invite and encourage you to participate in our presentations to colleges, especially your alma mater. Contact Rick Kolb at [rick.kolb1@gmail.com](mailto:rick.kolb1@gmail.com) if you are interested in participating in this program.



Mt. Ranier quilt in progress

## AEG STUDENT MEMBERS REQUESTED TO HELP WITH SCHOLARSHIP FUNDRAISING

*By Jane Gill-Shaler, AEG Carolinas Editor Emeritus*

For the last three years AEG member and co-editor of AEG GeoNews Jane Gill-Shaler, a North Carolina geologist, has been designing and creating “geology quilts,” which are raffled off at the annual AEG meetings in order to raise funds for AEG Scholarships through the AEG Foundation. The designs feature areas of interest where the meetings are held. Our next AEG Annual Meeting will be in Seattle WA from September 8-15, 2013. Jane has designed the quilt, but will need a few willing hands to help with the construction. Both men and women are welcome to help. The parts are broken down into about 12” by 12” squares, with all the materials and instructions included in each packet. The last quilt, *The Geology of Utah*,” brought in thousands of dollars for AEG Scholarships through the AEG Foundation. Other previous quilts featured the Great 1886 Earthquake of Charleston SC, and the 1964 Tsunami in Alaska. The Mt. Rainier quilt will be the fourth in the series.

It is interesting to find that in doing the squares, you find out something about geology in another area of this beautiful country that you may not have known before. The next design will feature Mt Rainier, a strato-volcano within sight of Seattle. The colors are the soft greys and whites of this beautiful mountain, with a surprise splash of color to indicate the next eruption!

For more details, or to pick up a packet, please contact Jane Gill-Shaler at [janehgillshaler@gmail.com](mailto:janehgillshaler@gmail.com), or at the next AEG meeting.



## NGWA LIFE MEMBER PASSES AWAY *(Continued from pg 5)*

"Harry was a leader in the profession but as importantly he was a wonderful person," recalled NGWA Government Affairs Director Chris Reimer. "He was very humble and giving of his time."

"When I was a young NGWA staffer, Harry took me under his wing, put up with my lack of knowledge, and gently guided me. I'm sorry that declining health in recent years didn't allow everyone on staff to know him—they would have liked Harry."

NGWA sends its condolences to the LeGrand family.

## AEG CAROLINAS SECTION BOARD MEETING MINUTES

*(Continued from page 14)*

Briget, Alex, Gary and Rick are planning to attend. Last year we sponsored the Icebreaker for \$1K, which has already been spoken for this year. A board vote was unanimously in favor of maintaining the \$1K sponsor level.

Sponsorship options suggested by Jenn Bauer:

Field trip 8 - Student Drilling Field Trip/Workshop \$250 (since the Section has done something similar before)

Field trip 5B - North Cascades and Methow Valley (2-day) \$250 (since its 2 days of exposure on the field trip guidebook)

Technical Session - Environmental Site Characterization and Remediation \$500 (since we have several environmental geologist in our Section)

Everyone agreed Jenn had good suggestions, but were comfortable sponsoring any Field Trips or Technical sessions. Rick motioned to donate \$1K to sponsor Jenn's suggestions or like activities. Briget seconded the motion and it passed the board with no dissenting votes or abstentions.

It was suggested by the incoming AEG President, Gary Luce, that Paul attends the board meeting following the annual meeting to present the formal proposal for the 2019 national meeting in Asheville. Rick motioned for the Section to pay airfare and 2 night's hotel so Paul can attend the conference and present the Asheville proposal. Alex seconded the motion and it was passed by the board with zero dissenting votes. Paul abstained from the vote.

### AEG Foundation Contribution

Many sections are making donations to the AEG foundation. Alex motioned for the Carolinas section to donate \$1k to the foundation's General Needs fund. Maddie seconded the motion and it was passed by the board with zero dissenting votes. Briget abstained due to her position on the Foundation Board.

### Vapor Intrusion Seminar

The Carolinas Section is planning to host a proposed 1 to 1.5 day seminar in early November, which is shortly after the new EPA rules regarding Vapor Intrusion will go into effect. The EPA has Vapor Intrusion and Site Assessment Rules out for comment now. We want to include southwest region. Rick is speaking with DHEC and EPA Region 4 people.

Will probably be held at the Brownstone in downtown Raleigh.

Rick Kolb, Thomas Veratti, Brian Smith, Elizabeth Depoy, Madeline German and Walt Plekan are working on the meeting set-up.

We will use AEG national for conference registration and printing.

This will be a great way to bring in additional income to the section. The Carolina's section should try to hold a conference or national meeting at a minimum of every three years to maintain good publicity and profitability.

### REDOX Conference

Another REDOX conference is planned for Raleigh on May 4<sup>th</sup> and 5<sup>th</sup>, 2014

Carolinas Section co-sponsoring with Redox Tech, but we really don't have to do much but advertise.

### Carolinas Section elections

Paul will send out ballots by the first of July

Suggested officers for the next two years –

Alex – Chair

Madeline – Vice Chair

Briget – Treasurer (can't move up from Treasurer due to being on foundation board)

? – Secretary

Rick and Alex will think on recommendations/suggestions for the Secretary position.

Gary Rogers has agreed to receive and tally the ballots.

### Section Officers Training teleconference – Section Ideas

Several good ideas were presented that perhaps we can incorporate or use as a springboard into other ideas.

Request when people RSVP to meeting they include their name, their company name, and their membership status.

*(Continued on page 22)*

(Continued from page 21)

Hold a student presentation meeting – where students can present or show posters, options include discounted rates for professionals and presenting a student scholarship or other awards, in addition to quarterly meetings.

If a member brings a new professional to a meeting they get a BOGO or half price dinner for the guest. Create a Section Facebook page, can have meeting and event pictures, provide contact information for board members, include meeting minutes, next section meeting details, etc.

John will set up a Carolina's Section facebook page. Once it is set up, Jenn will put an ad in the newsletter to help spread the word. John will also discuss with Rick establishing something on the Google platform. Poll meeting attendees for topics they would be interested in hearing talks on

Board needs to focus on talking with non-member professional who attend the meetings to convince them of the value of becoming an AEG member. Alex will try to incorporate ideas from the list, and gauge their success in our section.

The next section meeting is proposed for September. The Call ended at 4:30PM.

Submitted by Madeline German, Secretary, AEG Carolinas Section



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## ANNOUNCEMENTS

### In Situ Soil and Groundwater Remediation Conference March 4-5, 2014

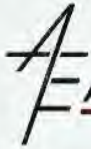
Redox Tech and AEG Carolinas Section will be hosting the Fourth Biennial Southeastern In Situ Soil and Groundwater Remediation Conference. The conference will be held on March 4th and 5th in Raleigh, North Carolina, returning to the Renaissance Marriott at North Hills. The conference will provide a forum for providing the state of the art for a wide range of in-situ remediation technologies.

Additional announcements and a call for papers will be provided in the coming months, so mark your calendar for March 4th and 5th of next year.

### North Carolina Geological Society News

EarthScope - The Transportable Array of seismometers is in North Carolina! The National Meeting was held in Raleigh in Mid-May [www.iris.edu/hq/earthscope\\_meeting](http://www.iris.edu/hq/earthscope_meeting); More Information: Transportable Array Status [www.earthscope.org/current\\_status/](http://www.earthscope.org/current_status/); [www.earthscope.org/](http://www.earthscope.org/)

**Carolina Geological Society (CGS) November 8-10, 2013** area of Mt. Pleasant-High Rock Lake-Albemarle, N.C. [http://carolinageologicalsociety.org/CGS/2013\\_Meeting.html](http://carolinageologicalsociety.org/CGS/2013_Meeting.html)



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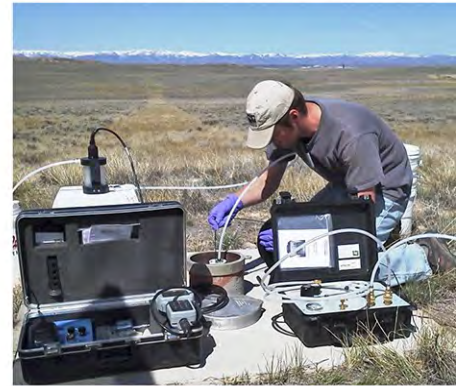
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## CALENDAR OF EVENTS - 2013

### *Geological Events in the Carolinas*

Courtesy of AEG Carolinas Section – [www.aegcarolinas.org](http://www.aegcarolinas.org). Last updated March 19, 2013

Send updates/corrections to Rick Kolb, Duncklee & Dunham, [rick.kolb1@gmail.com](mailto:rick.kolb1@gmail.com)

*Meeting Date, Time, and Location are Subject to Change – Please Verify Prior to the Meeting*

#### **Date: Thursday, July 18, 2013**

Event: South Carolina Association of Environmental Professionals monthly meeting  
Location: 6:30 PM social, 7:00 presentation at Edens Building, 1221 Main Street; Columbia, South Carolina  
Details: Basith A. Mohammed [bmohammed@gesonline.com](mailto:bmohammed@gesonline.com)

#### **Date: August 14, 2013**

Event: NCBLG Board Meeting  
More information: <http://www.ncblg.org/calendar.html>

Location: 3733 Benson Drive, Raleigh, NC 27609  
Note: All meetings are scheduled to begin at 9:00am; the public is invited to attend.

#### **Date: Thursday, August 15, 2013**

Event: South Carolina Association of Environmental Professionals monthly meeting  
Location: 6:30 PM social, 7:00 presentation at Edens Building, 1221 Main Street; Columbia, South Carolina  
Details: Basith A. Mohammed [bmohammed@gesonline.com](mailto:bmohammed@gesonline.com)

#### **Date: September 17-18, 2013**

Event: 6<sup>th</sup> Annual Geosciences Congressional Visits Day  
More information: <http://www.agiweb.org/gap/events/geocvd/index.html> Location: Washington, D.C.  
Contact: Rick Kolb, Advocacy Committee Chairman, [rick.kolb1@gmail.com](mailto:rick.kolb1@gmail.com)

#### **Date: September 8-15, 2013**

Event: AEG Annual Meeting  
Location: The Westin Hotel; Seattle, Washington

#### **Date: October 27-30, 2013**

Event: Geological Society of America Annual Meeting  
Location: Denver, Colorado  
Information: <http://community.geosociety.org/2013AnnualMeeting/Home>

#### **Date: November 7–9, 2013**

Event: The Combined Educational Meeting of the National Science Teachers Association and North Carolina Teachers Association  
Location: Charlotte, North Carolina

#### **Date: November 8-10, 2013**

Event: Carolina Geological Society (CGS) meeting and field trip  
Location: Mt. Pleasant-High Rock Lake-Albemarle, North Carolina  
Information: [http://carolinageologicalsociety.org/CGS/2013\\_Meeting.html](http://carolinageologicalsociety.org/CGS/2013_Meeting.html)

#### **Date: November 14-15, 2013**

Event: Conference on Vapor Intrusion in the Southeastern United States  
Location: Brownstone Hotel; Raleigh, North Carolina  
Information: Draft Final Vapor Intrusion Guidance Documents <http://www.epa.gov/oswer/vaporintrusion>  
Contact: Rick Kolb, [rick.kolb1@gmail.com](mailto:rick.kolb1@gmail.com)

(Continued on page 25)



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Tel: 407-826-5314  
Fax: 407-850-6945

#### **Jacksonville, FL Lab:**

[ENCOJAX@encolabs.com](mailto:ENCOJAX@encolabs.com)  
Tel: 904-296-3007  
Fax: 904-296-6210

#### **Corporate Office:**

10775 Central Port Drive,  
Orlando, FL 32824

(Continued from page 24)

**Date: TBD**

Event: The North Carolina Association of Environmental Professionals (NCAEP) each year holds up to four dinner meetings in Raleigh, and over the last several years have been expanding meetings to Charlotte and Wilmington.

Location: TBD

Information: <http://www.ncaep.org/meetings>



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### MEMBER:

- ☐ **New Member Dues – \$95.00** First year of membership only.  
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Applicants for Member Class, including Full and New Members, shall hold a degree in geology, engineering geology or geological engineering, or a degree in a related professional field with 30 semester-hours of credit in the geosciences. In addition, the applicant shall be practicing in the field of Engineering Geology, Environmental Geology or Hydrogeology.

*\*Section Dues - Section dues are charged to all Full Members, invoiced separately. More information regarding Section dues can be found at [www.aegweb.org](http://www.aegweb.org).*

### AFFILIATE:

- ☐ **Affiliate Dues – \$100.00**

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### STUDENT:

- ☐ **Annual Dues – FREE**

Applicants for Student Member Class shall be full-time students enrolled in an academic program in the geosciences or in a related field in engineering.

### INTERNATIONAL:

- ☐ **International Member Dues – \$35**

Applicants shall hold the same requirements as for Member Class. International Members receive (online ONLY) the E&EG Journal, Annual Directory, Annual Meeting Program with Abstracts and the AEG NEWS.

*AEG memberships are based on the calendar year. Applications received after October 1 will be entered for the following calendar year.*

### APPLICATION FORM

Please complete this form and mail it with your Annual Dues payment to the Association's Headquarters office for processing. New member applicants do not pay Section dues for their initial year of membership.

**Name:** \_\_\_\_\_  
*(Please print your name as you would like it shown on your membership certificate.)*

**Date of Birth:** \_\_\_\_\_  
*Required to authorize payment*

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My signature attests that, to the best of my knowledge, I meet the academic and practice requirements for the membership class I have requested and that all entries on this application are true and correct. I also authorize AEG to charge my credit card for the dues payment, if I selected the credit card payment option.

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E-mail (Current Institutional Provider): \_\_\_\_\_

E-mail (Non-Institutional Provider): \_\_\_\_\_

Institution (College/University): \_\_\_\_\_

Anticipated Graduation Year: \_\_\_\_\_

Please check one: ☐ Student ☐ New Graduate

Submission: Send this form to:  
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 PO Box 460518, Denver, CO 80246  
 Phone: 303-757-2926; FAX: 303-757-2969;  
 Email: [aeg@aegweb.org](mailto:aeg@aegweb.org); Website: [www.aegweb.org](http://www.aegweb.org)



## AEG CAROLINAS SECTION – SPONSOR INFORMATION

The Carolinas Section of AEG supports many of its activities with financial assistance provided by our sponsors. Our activities include quarterly meetings, periodic field trips and seminars, a quarterly newsletter, and email announcements about our meetings and geoscience related activities. In addition, we donate large quantities of educational resources to science teachers.

We offer several levels of sponsorship, but they all have one goal: to keep the sponsor's name in front of our members and to bring you business. We have a real commitment to connecting our sponsors to potential buyers and will do all we can to help you build your business. Most of our members are practicing professionals with responsibility for selecting subcontractors, so our group is a great place to find new customers and to catch up with existing clients in an informal setting.

Our sponsors provide the financial support that allows us to have reasonably priced dinner meetings, host seminars, provide discounted dinner meeting costs for students and teachers, underwrite the cost of newsletters and our web site, provide geoscience mentors for students and young professionals, and support science education tools to our teachers and in our schools. All costs listed below are per year and end in December. New sponsorships received after October will continue to December of the following year.

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Full Page	\$ 200.00

Please complete the form below and mail to Jane Gill-Shaler, AEG Carolinas newsletter editor. Please call or email if you have any questions (contact information below).

### AEG Carolinas Section Sponsorship Form

Please begin our sponsorship of the Carolinas Section of the Association of Engineering Geologists. Our sponsorship level is:

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### MAKE CHECK OUT TO AEG CAROLINAS

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(Modified 7/11/13)

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Paul Federline, 866-646-7463, [pfederline@pine-environmental.com](mailto:pfederline@pine-environmental.com) 919-713-0008; Pine Environmental Services, Inc., "The Environmental Supply and Support People" is the largest environmental supply and leasing company in North America. Pine is the leading provider of rental equipment in the nation with the latest instruments available. Pine Environmental Services, Inc. takes pride in their unprecedented customer support and competitive pricing. Extended hours of operation and after-hour emergency support are on hand.

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