

FALL 2011

# GEONews

Newsletter of the Association of Environmental  
& Engineering Geologists, Carolinas Section



## SAVE THE DATES!

**AEG-ASCE Joint AEG-ASCE  
Meeting September 29 in  
Asheville,  
Featuring Jennifer Bauer,  
AEG President**

**AEG Carolinas Fall Meeting  
October 27 in Greensboro,  
Featuring John Dills,  
Progress Energy**

**GEONEWS FALL 2011**  
**Issue Date: September 21, 2011**  
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*Cover: Jennifer Bauer, President of AEG, at Mill House Falls on the North Fork of the French Broad River in Transylvania County, NC. Jennifer will speak at our September 29 meeting in Asheville. See page 4 for details.*

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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, 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

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## MESSAGE FROM THE CHAIR

By Paul Weaver, PG,  
Carolinas Section Chair

I hope you have all enjoyed your summer and are looking forward to the fall. I will begin my second term as Chair of the Carolinas Section beginning the week of the AEG annual board meeting the third week of September. It is an honor to continue to serve as your Chair, and I want to thank all of the dedicated people who help make the Carolinas Section the best section in all of AEG. Among these people are Rick Kolb - Past Chair of the section, Brad Worley - Vice Chair, Alex Rutledge - your new Treasurer, Briget Doyle - your new Secretary, Jane Gill-Shaler - Newsletter Editor, Tami Idol - Webmaster, Frederick Love - Membership Committee Chair, Adam Phillips - Social Committee Chair, Jennifer Bauer - our advisor and guru, and Dave Dunklee - our outgoing Treasurer. Without all of these people and too many others to mention in the space of this article, our section would not be where it is today, and my job as Chair would be a great deal more difficult.

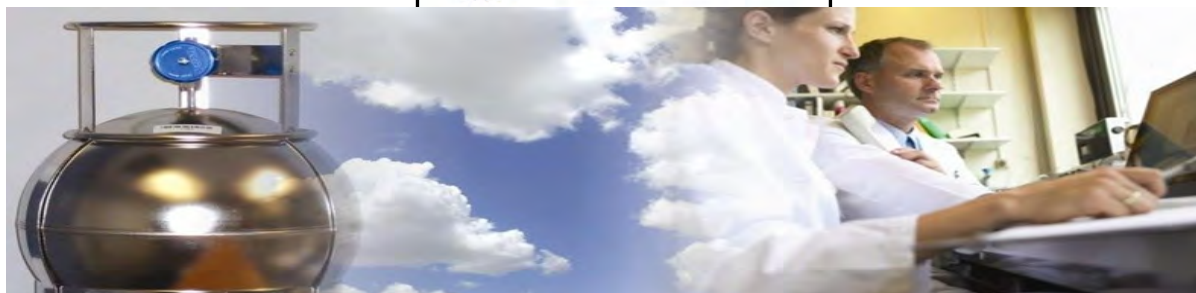
Among the things on my agenda for my next term as Chair is to reach out better than we have been to our new members and students. I want our new members to feel a part of the organization from their first day, and to take full advantage of all that AEG has to offer. In regards to our students, I believe that we have a strong outreach already, but I would appreciate ideas from the students as to what we could be doing that we are not already doing to enhance their experience and prepare them for the professional world. I plan on continuing our name tag system we started this year to allow us to more easily tell who are members and who are visitors at our meetings. I would also like to strengthen our ties to other professional organizations such as ASCE, AIPG, and GSA. I am proud of the joint meetings we have been having with ASCE,

and would like to expand this to other organizations within the geoscience sphere. In case you aren't aware of this, GSA will be holding their southeastern meeting in Asheville and their national meeting in Charlotte in 2012. The Carolinas Section will be assisting GSA by sponsoring some events at each meeting, and by sponsoring a symposium on "Practical Applications of Engineering Geology" at the Asheville meeting, and possibly at the Charlotte meeting.

AEG, like the rest of the country and the world, has suffered as a result of the prolonged economic decline. We have seen our membership decrease due to people having to cut back on expenses and seeing AEG dues as one of the expenses to do away with. We are still a strong professional organization, but we need to reach out to our co-workers and other geology contacts and let them know how important it is to be a part of AEG. Think about the people you have met by being a part of AEG and how that network has been, or could be, invaluable to you as you advance in your career (I can personally testify as to how it has helped me!). Also, I urge all of our past members who still receive this newsletter but have not renewed their membership in AEG to please do so when renewal time comes around the later part of this year. We need you back to help our association continue to thrive and advance as a strong advocate for our profession.

The Carolinas Section held the first event organized by our new social committee on August 24: a Durham Bulls game. We had about 14 people attend and we all had a great time. We hope that we will be able to have many more purely social events to allow everyone a chance to get to know each other better and to network outside of our quarterly business/technical meetings. Among the ideas that are being kicked around is a camping trip, attending a Hurricane's game, going to the drive-in theater, and meeting at micro-breweries around the state, possibly on a monthly basis. If you are interested in participating in any of these events, and/or are willing to

*(Continued on page 11)*



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## JOINT AEG/ASCE DINNER MEETING IN ASHEVILLE SEPTEMBER 29TH

Our first Fall meeting will be held in the South Bar of Pack's Tavern in downtown Asheville. The speaker will be our very own Jennifer Bauer, newly installed President of AEG, and former Chair of our Section. Jenn will speak on benefits and lessons learned of the NC Geological Survey's Landslide Hazard Mapping Program, which was recently defunded by the state.

The dinner meeting will be held jointly with the Western Branch, North Carolina Section of the American Society of Civil Engineers.

Details, a map and directions are on the next page.

**Presentation:** *North Carolina Geological Survey Landslide Hazard Mapping Program – What We Learned and How You Can Use It*



**Speaker bio:** Jennifer Bauer has been involved in landslide mapping for the last 5½ years. Prior to June 30, 2011, she was a member of the Landslide Hazard Mapping Team for the North Carolina Geological Survey (NCGS). In this position she utilized the GIS environment for remote sensing, data collection and interpretation for county-wide map production. Ms. Bauer divided her work time between hiking the mountains of North Carolina to locate and map landslides in the field,

analyzing the data and finalizing the maps in the office, responding to landslide emergency events, and doing public outreach. Before joining the NCGS in November 2005, Ms. Bauer worked with MACTEC Engineering and Consulting first as a field geologist, and then as construction materials testing laboratory manager. In these positions, she gained a strong background in subsurface investigations and engineering properties of soil, aggregate and concrete, and was exposed to many engineering, environmental, and construction materials testing projects.

Ms. Bauer earned her B.S. with Highest Honors in Geology at the University of North Carolina in Chapel Hill in 2001. She is a licensed geologist in North Carolina.

Ms. Bauer's experience with the Association of Environmental & Engineering Geologists began in 2002 as Secretary of the Carolinas Section. Since then, she has held the office of Vice Chair and Chair of the Carolinas Section, was a member of the Section/Chapter Support Committee, co-chaired the Governance Committee, and served on the Executive Council as Secretary, Treasurer, Vice President/President-Elect, and now as President. In her time away from starting a geology consulting business or AEG, Ms. Bauer enjoys mountain biking, hiking, trail running, and adventure racing. She currently resides in the beautiful mountains of North Carolina with her husband Brian, dog Maddie, and cat Kitty.

**Abstract :** In July 2011, the North Carolina General Assembly eliminated funding for the North Carolina Geological Survey Landslide Hazard Mapping Program. The Hurricane Recovery Act of 2005 authorized the program after two tropical cyclones passed over the mountains of North Carolina in September 2004, triggering over 400 landslides. The purpose of the program was to create county-level digital landslide hazard maps for use by the public, local governments, and emergency managers to identify landslide hazard areas, and increase awareness of this hazard in western North Carolina. During the course of mapping four counties, the team developed an extensive geodatabase, standardized the mapping process, helped develop an online map viewer to distribute the maps to the public, and responded to landslide events and numerous inquiries from the public concerning landslides.

The maps were created in a Geographic Information System (GIS), using remote sensing of the LiDAR digital elevation model and aerial photographs, followed by field work to map and collect data at landslide and landslide deposit locations for model calibration. This information was analyzed and input into a GIS-based Stability Index Map (SIMMAP) to model hazard zones for debris flow initiation given specified input parameters and conditions. From the SINMAP-generated high-hazard zones, the Debris Flow Pathways map was then modeled to show where debris flows might travel.

This talk will discuss the benefits of the mapping program, what was learned about landslides in western North Carolina during the process, how the audience can

(Continued on page 5)



### Meeting Details

Place: South Bar of Pack's Tavern  
 Date: Thursday, September 29, 2011  
 Time: 6:00 PM social hour, 7:00 dinner, 8:00 speaker  
 Cost: ASCE and AEG Members \$25, non-members \$30, students FREE with college ID  
 Reservations: Please make reservations with Fred Love or John Garner by Monday, September 26, 2011  
 Phone for Fred: 828-989-0645, email: Frederick.love@trs-environmental.com  
 Email for John: john@garner-eng.com

*(Message from the Chair—Continued from page 4)*

use the maps and information, and lessons learned from this experience.

**About Pack's Tavern:** Located in downtown Asheville at 20 South Spruce Street, Pack's Tavern is in the historic Hayes Hopson building in the middle of Pack Square Park. Built in 1907 and older than most of the more famous Asheville landmarks, the Hayes Hopson building has long served its community. It has served as a lumber supplier, an automotive supply company, and in more recent history, the renowned Bill Stanley's Barbeque and Bluegrass. But hidden behind steel doors in the basement lies a Hayes Hopson secret. These heavy doors open to a dark chamber that leads under South Spruce Street and once continued to adjacent buildings. The Hayes Hopson building has supplied lumber, auto parts, BBQ to Asheville but during the Prohibition years it supplied illegal liquor to local scofflaws (people who disobeyed the dry laws of the Volstead Act) via this underground passage.

The repeal of the Volstead Act in 1932 changed the laws in the early months of 1933 to allow the distribution and sale of alcohol. This new change made the Hayes Hopson building no longer needed for the vast distribution of the illegal whiskey through the Western North Carolina counties. Therefore the building needed to change its purpose and became a popular automotive and appliance center. Pack's Tavern initiated restoration efforts in the summer of 2009.

Much care was taken to expose the original brick, original tongue-and-groove ceiling and wood trusses, and to uncover the 100-year-old flooring. Today, you'll find a tavern beautifully restored to Prohibition-Era grandeur.

What separates Pack's Tavern from other establishments is our unique variety of craft beer. We carefully pair beer styles with food items on the menu so you can experience the remarkable compatibility of food and beer. We rotate 30 or more local, national, and international craft beers to offer the best selection available. We have established partnerships with individual breweries and distributors that will allow us to debut new creations, feature limited quantity selections, and to make available the most sought after beers and breweries. We also offer carefully selected bottled beers that represent many styles and breweries around the world. Pack's Tavern's knowledgeable staff will introduce you to the fascinating world of craft beer and its inherent complement to a great meal.

**Directions:** Take I-40 to I-240. Take I-240 to exit 5B, Charlotte Street. Turn south onto Charlotte Street, right onto Eagle Street, right on South Spruce Street.

**Parking:** The Asheville City government allows free public parking after 5 p.m. and on weekends and holidays for Pack Square Park visitors on Marjorie Street, adjacent to Pack's Tavern. You can also find the Pack Plaza Parking Deck on Biltmore Avenue -- simply walk out the back onto Market Street, only a block from Pack's Tavern. Another option is the College Street Parking Deck, directly across from the Courthouse and only a block from Pack's.



*This is just one of the fun dinner meetings we have had in the last few years. Please note the large number of student members who are getting a free meal and some friendly mentoring by our professional members.*

## AEG CAROLINAS SECTION TREASURER'S REPORT

*By Alex Rutledge, Section Treasurer*

### BALANCE as of March 31, 2011

Checking Account	\$6,296.06
Money Market Account	\$21,648.29
Charleston Planning Acct. (Closed Out)	\$0.00
<b>SUBTOTAL</b>	<b>\$27,944.35</b>

### INCOME

Dinner Meetings	\$1,430.00
Sponsorships	\$875.00
AEG Dues rebates	\$0.00
Interest	
Money Market	\$9.55
<b>SUBTOTAL - INCOME</b>	<b>\$2,314.55</b>

### EXPENSES

<b>Dinner Meetings</b>	
Raleigh Mtg. Venue and Food	\$2,169.49
Meeting Cake	\$66.11
<b>Educational Programs</b>	
NCSU Visiting Professionals Expenses	\$207.29
Food & Beverages for UNC-CH V.P. Mtg	\$401.00
Guilford College V.P. Expenses	\$161.65
Bruce Hilton Hotel Reimbursement	\$303.48
<b>Grants to GSA and AEG Conferences</b>	
Sam Fuerst	\$200.00
Corresponding AEG Membership	\$35.00
AEG Annual Meeting Sponsorship	\$1,000.00
<b>Administrative</b>	
Booth Shipment to Denver AEG	\$135.23
Section Chair Flight to BOD Meeting	\$478.88
Section Chair Hotel for BOD Meeting	\$327.80
<b>SUBTOTAL - EXPENSES</b>	<b>\$5,485.93</b>

### BALANCE as of June 30, 2011

Checking Account	\$3,115.13
Money Market Account	\$21,657.84

**TOTAL** **\$24,772.97**

## AEG CAROLINAS SECTION QUARTERLY BOARD MEETING CONFERENCE CALL

*By Alex Rutledge, Past Section Secretary*

September 8, 2011. The meeting was called to order at 3:30 PM.

### Attendees:

Paul Weaver (Chair)  
Brad Worley (Vice-chair)  
Alex Rutledge (Treasurer)  
Frederick Love (Membership Chair)  
Jane Gill-Shaler (Newsletter Editor)  
Adam Phillips (Social Committee Chair)  
Jennifer Bauer (Advisor)  
Rick Kolb (Student Liaison)  
Tami Idol

### 1) **The votes are in and the Board of the AEG Carolinas Section is as follows:**

Chair – Paul Weaver  
Vice Chair – Brad Worley  
Treasurer – Alex Rutledge  
Secretary – Briget Doyle

### 2) **Carolinas Section Treasurer's Report** – Alex

See attached Treasurer's report for second quarter. (Report on left column on this page)

Jennifer Bauer will be added as a signatory to the Carolinas Section account as per National requirements

### 3) **Section meeting in on September 29 in Asheville**

at Pack's Tavern

Will be joint meeting with ASCE  
Jennifer Bauer will be the speaker  
RSVPs to be sent to Fred  
Fred to check with John Garner to see how many ASCE members are anticipated to attend.  
Board members attending?

Alex Rutledge  
Paul Weaver  
Jennifer Bauer  
Jane Gill-Shaler  
Fred Love

(Continued on page 7)

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Adam Phillips (maybe)

Tami Idol (maybe)

- 4) **Section meeting in Greensboro on October 27** at Natty Greene's  
RSVPs will be sent to Paul  
Paul will send announcement to Tami for distribution
- 5) **Surcharge for non-members**  
We will start charging \$5 more for non-members (\$30 vs. \$25) beginning at the September meeting. Representatives of sponsors who are not members will be charged the member rate.
- 6) **Admission for public school teachers to Section meetings**  
We will start allowing public school teachers to attend our Section meetings for a fee of \$10.
- 7) **We need to decide on date and speaker for the winter meeting in Charlotte.**  
Rick, didn't you have an idea for the speaker at this meeting?  
Gary Rogers communicated via e-mail about two potential speakers: a Tennessee DOT employee and a Clemson professor.  
Rick mentioned a potential speaker with the UIC section of DENR, although he may be better suited for a Raleigh meeting.  
Who will organize this meeting?  
Brad: We may have the meeting at Dave and Busters again if the cost is reasonable.
- 8) **Meeting in Columbia in the fall.**  
Still waiting to hear details from Raymond Knox.
- 9) **Earth Science week** is coming up the week of October 9-15.  
We may send out a press release to local newspapers, point readers toward websites devoted to Earth Science week.
- 10) **Field Techniques Symposia** have been set up by Rick  
The one in Charlotte will be Saturday, October 29 from 1100 to 1600.  
The one in Raleigh will be Saturday, November 5 from 1100 to 1600.  
The symposia will include demonstrations of geo-technical and environmental drilling techniques.

Rick and Paul plan to attend.

We are providing a BBQ dinner after each symposium. We need to determine the cost of providing a catered dinner, and select a caterer.

Rick will be sending an announcement to all of the colleges in NC.

11) **Section field trip**

Fall field trip suggestions from conference call attendees:

Clay field where they make bricks and pottery.

Ask employees at geologic survey in Raleigh if they have ideas.

We may need to wait until spring for next field trip.

Send Paul additional suggestions via e-mail.

12) **AIPG water meeting in Greenville** on October 3-5

AEG gets free space for our tabletop display

If you or someone you know is planning on attending, would they (you) be willing to take care of our booth and man it part time during the conference? I need to know immediately so I can let National know.

Brad may be able to go for a day and man the booth if we need him to. Gary Rogers may also be going.

13) **GSA Asheville regional meeting**

March 31 (Saturday) through April 2 (Monday)?

Days of week don't seem right; Paul to check on this  
The Carolinas Section will be putting on a symposium entitled "Practical Applications of Engineering

(Continued on page 26)



Greensboro, North Carolina

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## OCTOBER 27 FALL MEETING IN GREENSBORO ON PROGRESS ENERGY—A BALANCED SOLUTION

The Carolinas Section of the Association of Environmental & Engineering Geologists is proud to present John Dills, Progress Energy, who will speak on **Progress Energy, A Balanced Solution**. The meeting will be held at our usual Greensboro lair, Natty Greene's, on Thursday, October 27, 2011, from 6:00 PM to 9:00 PM. Details are below.



**Abstract:** John will cover the basic background of Progress Energy and their approach to meeting future energy demands which includes nuclear power. He will cover the basic operation of a nuclear plant and Progress Energy's spent fuel storage plans. He will also contrast Progress Energy's storage plans and facilities to that of the Japanese.

**Bio:** John is currently the Director of Refueling and Turbine Services for Progress Energy. In this position, he is responsible for refueling, dry nuclear fuel storage and turbine Services at the five Progress Energy Nuclear Units. Prior to his current position, John held numerous positions at the Progress Energy Nuclear Plant in New Hill, NC including: Manager of

### Meeting Details

Place: Natty Greene's, Greensboro North Carolina  
Date: Thursday, October 27, 2011  
Time: 6:00 PM social hour, 7:00 dinner, 8:00 speaker  
Cost: ASCE and AEG Members \$25, non-members \$30, students FREE with college ID, Teachers are \$10.

Reservations: Please make reservations with Paul Weaver by Friday, October 21, 2011

Phone: Paul: 336-294-1633

Email: pmweaver@bellsouth.net

Operations, Manager of Outage and Scheduling, Superintendent of Electrical/I&C Maintenance, Superintendent of Systems Engineering, Superintendent of Technical Services, Supervisor of Electrical/I&C Systems Engineering, Superintendent of Shift Operations, and various positions within the Operations Department. Prior to working for Progress Energy, he was an Electronics Technician in the US Navy Naval Nuclear Power Program

John received a Bachelors of Nuclear Science and Engineering from the University of Maryland in 1995, and a Masters of Business Administration from Campbell University in 2008. He holds a Senior Reactor Operator License from the Nuclear Regulatory Commission.

John is originally from Sylva, North Carolina and currently resides in Sanford. He is married and has two children, a daughter who is currently attending UNC Chapel Hill, and a son who is 16.





## AEG CAROLINAS SOCIAL EVENT UPDATE

By Adam Phillips, Social Committee Chair

Hey, hey, hey folks! We had our very first AEG Carolinas Section social event outing on August 24th to watch the Durham Bulls take on the Norfolk Tide. Bull Durham lived up to the hype, and all that attended had a blast and consider it a success. We first met at Tyler's Taproom, located adjacent to the Durham Bulls Athletic Park (DBAP) to enjoy a few beers, cocktails, buffalo wings, and nachos. From there we moseyed on over to the DBAP to enjoy the game. The park really is beautiful, and has more amenities than I remember from growing up and attending minor league baseball games. Woolly Bull, their mascot, put on a great show for the kids!



Moving forward, we'd love to have more AEG members and guests attend the events, because "the more the merrier!" Future plans for social outings include other sporting events such as the Carolina Hurricanes, Carolina Panthers, and Greensboro Grasshoppers. And if sports aren't your thing, we've also got several other potentially great ideas. Vinyard tours at various locations throughout the Carolinas, camping and/or hiking trips (in both North and South Carolina), attending an old fashioned drive-in movie, or a trip to the Zoo. We want to make these decisions democratically, and "let the people" decide what to do.

Therefore, we need your feedback. If you have a preference on the type of event you'd like to attend, please let us know. We're also very eager to hear additional ideas. An announcement for the next scheduled event will be sent out with plenty of time to RSVP. In the meantime, please share your opinions and ideas for future social events. Contact Adam Phillips at [adam.phillips@sgs.com](mailto:adam.phillips@sgs.com) with questions, comments, and ideas to make the most out of your social event plans. I look forward to seeing you all at the upcoming monthly "brewpub" event in Raleigh, where we can also discuss future options for these outings.





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## GEORAMBLINGS

By Dr. Charles W. Welby

These notes might properly be called “Wandering Through Energy.” Many years ago (Late Ordovician, perhaps) I read a novel entitled “Adam” as I recall. The story opens with the main protagonist returning to Berkeley, CA after recovering from a rattlesnake bite in the foothills of the Sierra Nevada Mountains. He found almost everyone gone; the population was just totally absent except for a few stragglers, and they were a mixed lot. In the story he eventually drives across the U.S. finding a few people here and there, and a few clusters of people trying to survive some unknown calamity that erased the population of the U.S. New York is also essentially empty, and there is no evidence of what happened. During his round trip across the U.S. he can find gasoline for his car at abandoned service stations and food in abandoned stores.

Energy was available as some power plants still ran. However, as time progresses, energy sources are lost, and the society that develops in the East Bay area with both good and bad characters has to find new energy sources. The novel is mostly about the development of a new civilization in the East Bay area, but the need for energy plays a subtle role through the novel. When push comes to shove, energy eventually has to come from food crops that the people in the new situation produce and through their physical labors.

So how does this anecdote fit into comments on things geological? In a rambling sort of manner one can think about where energy is utilized in our lives and what some ideas for modifying our lifestyles, degrading some, and improving others through use of different sources of energy.

Since shale gas and “fracking” are much in the news,

a good starting point might be consideration of energy used in locating appropriate locations for shale gas exploration, the construction of a well to test the ideas about presence or absence of shale gas, and the energy utilized in collecting the shale gas and transporting it to the eventual user. There is in a symbolic way an energy cost which is eventually reflected in an economic cost which in turn must be reflected in a price to be paid for the product by the beneficiaries (you and me symbolically).

We hear much about use of alternate energy sources for our cars and other activities in our lives. But in an energy sense what source(s) of energy is (are) used to produce the materials that go to produce the facilities through engineering design and construction to become the electric power plants or the batteries that, for example, power the vehicles we wish to have available to us for transportation?

For those of us with training about the geologic aspects of the world we live in and perhaps with some insight into materials science, there is an understanding about materials and energy that perhaps others do not possess. We understand not only where a geologic source can be found, but we also have an understanding (I hope) of the requirements for materials to convert solar energy into hot coffee. The conversion of solar energy to electrical energy requires energy for extraction of the materials (e.g., rare earths) for the solar cells, the transport of the ore to a processing facility and eventually to the manufacturing site, the energy to convert the materials into the solar cells, and the energy to form the solar cells into an apparatus to collect the solar energy and transport it to the eventual consumer.

Even a Dutch oven on a camping trip requires energy to make the oven itself before it is ever used. Perhaps better to bake eggs under the fire. However, wood equals energy, and wood equates to harvesting of a forest in the broader sense. Some of the oil and gas production platforms in the North Sea use wind to generate electrical energy on the platform for the drilling and production operations. Excess electricity is in some cases exported to the “nearby” shore in Scotland. The question then becomes in this case, “What energy is used in the manufacturing of the equipment to generate the electricity, the cables used to move the electricity onto shore, and the other equipment used to provide the electricity to the eventual consumers?” Also there must be considered the energy utilized in the construction of the platform itself.

Most of us, I would suspect, are committed to the various recycling projects in our communities. Every item that is recycled, and there are many laws requiring recycling in various localities, requires energy for transport to the place of disposal or

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*GeoRamblings (Continued from page 10)*

reforming it into something useful. In North Carolina plastic is required to be recycled and not placed in landfills. It requires energy to pick it up and to take it to a processing facility. This need along with the energy to produce initial product from the raw materials together with the energy utilized in the extraction of the plastic source material and its manufacture represents the total energy utilized in the production of the new item. (e.g., milk bottles to plastic fence materials.)

When we think of water resources, we often focus on the supply of water in a river basin or the recharge to an aquifer. But it takes energy to build a dam for a water supply to generate electricity as well as to supply water for the population. In some cases the surface water supply may be controlled by the nature of the vegetation and by climate-related factors. For instance, there is some indication that in forested areas with some snowfall there is less runoff from the snow than in areas where there has been clear cut. It appears that the snow which never falls on the ground in the forested area is at least in part sublimated back into the atmosphere whereas areas where the snow falls only on the ground becomes runoff and recharge to the ground water system, depending, of course, on the nature of the material (soil) at the surface. And all of these

factors probably play a role in the nature of the local climate.

Each of us, Gentle Reader, can develop our own evaluation of what the world's societies want and need in terms of energy. We can also form our own individual opinion about how we address and handle the opportunities presented to us, but whatever the decision, my suggestion is that we all must look at the energy balance and needs. In ancient times energy for the human endeavor came mostly from the food that the humans ate, the food for the animals that they utilized for work. Eventually humanity developed the ability to supply its energy needs through cropping with later recognition of the use of fire from wood and eventually coal and finally in "modern times" extraction of petroleum.

Q.E.D.

*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.*

*(Message from the Chair—Continued from page 3)*

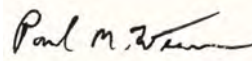
help plan social events, please contact Adam Phillips (his contact information is listed under the Board members on page 2 of this newsletter).

By the time you read this article, I will probably be in Anchorage Alaska at the 2011 AEG. We had to schedule the meeting at a later date than originally planned due to scheduling conflicts with our speaker, Jennifer Bauer. I do hope to see you all at our fall meeting at Natty Greene's in Greensboro on October 27. Please see the announcement on page 8 of this newsletter for details.

Speaking of Jennifer Bauer, by the time you read this article, Jenn will be the new President of AEG. Congratulations Jennifer!!

As always, please feel free to contact me with any concerns, ideas, great breweries you know of, etc. I look forward to getting to talk with you soon.

Sincerely,



Paul M. Weaver, P.G.  
AEG Carolinas Section Chair  
pmweaver@bellsouth.net



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## A NEW REGULAR (?) SOCIAL EVENT FOR THE SECTION

By Rick Kolb, Duncklee & Dunham

For many of us, one of the most popular facets of our section meetings is the social hour at the start of the meeting. It's a chance to catch up with friends you haven't seen for a while, to find who changed jobs, who got married or divorced, who had a child, who moved on to something different, who retired, or maybe, sadly, who's been laid off. The community of environmental consultants is not large, and after attending section meetings for a few years, your fellow members begin to feel almost like family. And then there's that mysterious relationship be-

tween geologists and beer that strikes a chord in some/many/all of us; you probably can remember back to your college days when you first realized the close relationship between geology and beer. That's not to say we are dependent on brew to have a good time (well, maybe some of us are), but it sure seems to loosen up things a bit. We extended the social hour of our section meeting in Raleigh last spring to an hour-and-a-half because, for some of us, an hour just isn't long enough to talk to everyone with whom you'd like to speak.

Therefore, our section is going to try a new social event that may become a regular one. We propose to have a social hour/hours without a meeting to follow. Instead of dinner and a speaker, we'll socialize at a local brewpub. Simply, we will get together for an hour or two to talk, and then adjourn. Or stay longer. Or go elsewhere. There will be no timetable, schedule, agenda or plans. Let's just meet for a few beers on a Thursday evening and see how it goes.

Since our section and geologists seem to have an affinity for brewpubs, we will hold our socials at these venues. Recently one of our members was at a brewpub in Kinston (yes, they do have one, Mother Earth Brewing, and it's surprisingly nice) and came across Southern Brew News, a trade newspaper about breweries in the Southeast. The newspaper showed 42 breweries in North Carolina, from Bryson City to Kill Devil Hills. However, most are

(Continued on page 13)



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(Continued from page 12)

in the urban centers, where the majority of our members are located, so that's where we'll start.

The Carolinas Section first Brewpub Social will start at 6:00 PM on Thursday, October 13 at the Boylan Bridge Brewpub, 201 South Boylan Avenue just west of downtown Raleigh. This pub has a great outdoor patio, and by October the weather should be perfect for hanging outside. In addition, the food here is good. Not outstanding, just your typical brewpub fare. Parking is on the street, so you can't park right next to the brewpub, but tough it out. Unless you want to buy for all of us, everyone will be on their own tab.

Does this sound interesting to you? We have no idea if there is interest in this type of social event. To help us gauge interest and reserve a table(s) at the pub, please email Adam Phillips or Rick Kolb if you plan to attend – adam.phillips@sgs.com and rkolb0915@aol.com. Likewise, if you say you will attend and suddenly find out you can't, let them know that, too. However, don't feel like you have to RSVP. If you suddenly find you can make it, come on out. We know how schedules in our industry suddenly change. The monthly social for November, if successful in Raleigh, may be in Charlotte at the Rock Bottom Brewery, where we held a couple section meetings. If there's a brewpub you think we'd like as a venue, let us know.



### QUILT RAFFLE FOR AEG FOUNDATION

This queen-sized, handmade satin quilt is being raffled off at the AEG 2011 Alaska Meeting in Anchorage, as we speak! It depicts an artistic interpretation of the 1964 Alaska 9.2 earthquake and resultant tsunami, and is entitled "1964." For more details, or to purchase a raffle ticket, contact Becky Roland, COO of AEG, at [broland@aegweb.org](mailto:broland@aegweb.org). The artist? None other than your intrepid editor!



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## THIRD BIENNIAL SOUTHEASTERN IN SITU SOIL AND GROUNDWATER REMEDiation CONFERENCE 2012

Redox Tech, with sponsorship from the Association of Environmental & Engineering Geologists (AEG) Carolinas Section, is again organizing the Biennial Southeastern *In Situ* Soil and Groundwater Remediation Conference.

The conference will be held on March 6<sup>th</sup> and 7<sup>th</sup> 2012 in Raleigh, North Carolina, returning to the Renaissance Marriott at North Hills.

Past attendance at this conference has exceeded 200. The conference will provide a forum for providing the state of the art for a wide range of in situ remediation technologies. On the first day of the conference, recognized speakers from around the country will present on their area of expertise. On the

second day, case studies will be provided by consultants and vendors on the application of emerging technologies, with lessons learned.

The Conference should provide a valuable opportunity for groundwater professionals to keep abreast of recent developments in remediation technologies, while potentially earning continuing education credits. Also, be sure to visit the AEG Carolinas Section booth or visit the following website to join AEG online or print a membership application <http://www.aegweb.org/i4a/pages/index.cfm?pageid=3327>

### CONFERENCE DETAILS

Pre-registration will be available Monday the 5<sup>th</sup> from 6 to 8 pm. Display booths will be set up at this time also.

#### DAY ONE AGENDA:

7:30 to 9:00 a.m.	Breakfast (provided with registration) and Registration
9:00 a.m. to Noon	Morning Invited Speakers
Noon to 1:00 p.m.	Lunch provided with Registration
1:00 to 4:30 p.m.	Afternoon Invited Speakers
4:30 to 6:00 p.m.	Evening Social and Poster Session

#### DAY TWO AGENDA:

7:30 to 8:30 a.m.	Breakfast (provided with registration)
8:30 a.m. to Noon	Morning Accepted Speakers
Noon to 1:00 p.m.	Lunch provided with Registration
1:00 to 4:00 p.m.	Afternoon Accepted Speakers

### COST

The cost of registration for the conference is \$250, and includes continental breakfast, coffee and tea at breaks, and lunch. The evening social is a cash bar, but light snacks will be provided. Discounts are available for AEG members, students or State Employees (reduced rate of \$200). Each participant will be responsible for their own dinner and lodging. Redox Tech is the promoter and main sponsor of the conference, with AEG Carolinas Section as co-sponsor, none of whom are directly profiting from the conference. The cost covers direct costs such as the conference room, lunch, beverage, snacks, and A/V equipment rental. Participation is limited to the first 250 registrants. Registration is fully refundable up to one week prior to registration, less an administrative fee of \$25. If you cannot attend, your registration may be transferred to another participant. Single day registrations are not available. Your credit card will be charged at the time of registration.



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## ABSTRACT SUBMISSION

Limited spots are available for presentations by vendors and consultants. Abstracts must be submitted by December 2, 2011 in electronic format to [abstract@redox-tech.com](mailto:abstract@redox-tech.com). Notification of acceptance will be made by December 16<sup>th</sup>, 2011. Presentations materials for selected abstracts must be provided by February 28<sup>th</sup> to be included in the program

## SPONSORSHIP AND DISPLAY BOOTHS

Display booth areas are available on a first-come basis for \$950. Access to an electrical receptacle is \$50 additional with limited availability. The cost includes two registrations with full access privileges. We have room for 16 booths. The exact layout has not been determined. We are seeking sponsors for the social hour on Tuesday, March 6<sup>th</sup> and breakfast on each of the mornings. Sponsorship cost is \$300 and includes prominent display of your company name and logo.

Sponsorships are available on a first-come basis. There will be an end-of-day raffle, and we are seeking gifts to raffle from vendors and consultants. Display booths will be charged to credit cards one month prior to the conference. For Booth registration, please contact us via phone at 919-678-0140 for information.

## HOTEL

The conference is being held at the Marriott Renaissance Raleigh Hotel in North Carolina - [Renaissance Raleigh North Hills Hotel](#). The hotel is a reasonable drive from the Raleigh Durham Airport (RDU). The hotel does not offer free shuttle service, but it does have free parking. A block of rooms has been reserved at a discounted pre-registration rate of \$169 per night. Simply use the link above, check availability, and the discounted rate will appear. The block of rooms is being held until February 10, 2012. There are other hotels in the area, but if you need a room, reserve early because they may be limited.

## REGISTRATION INFORMATION

Name \_\_\_\_\_

(Name as you wish it to appear on your badge)

Company \_\_\_\_\_

Address (City, State, Zip) \_\_\_\_\_

Phone (office) \_\_\_\_\_ Fax \_\_\_\_\_

Email \_\_\_\_\_

### PAYMENT METHOD (Payment MUST accompany this registration form)

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## EDUCATION SECTION

### NEWS FROM STUDENT GEOLOGY CLUBS

#### North Carolina State University Geology Club.

We are really excited about the upcoming year and partnering with AEG. Our focus will be on professional education and career development. We want to elucidate career options in the geosciences and help students understand how to get there. We plan to bring in visiting geologists from different career areas to speak to students, and will be meeting on the second Tuesday of every month in room 1132 of Jordan Hall at NC State. There might be changes to this schedule on a case-by-case basis. Everyone is invited. We really need geoscience professionals to come in and speak to students about career paths, what you do, what do you like about your field, what you are looking for in a new hire, etc. If you are interested in speaking at one of our meetings, please email me at [geologyclubncsu@gmail.com](mailto:geologyclubncsu@gmail.com). Cheers!

**Earl Wells, President, NCSU Geology Club**

**The Geology Club at UNC-Chapel Hill** is hosting several social and geology related activities this semester. After a fundraising cookout in the first week of classes, plans have been drawn for a camping trip to Stone Mountain State Park on the weekend of September 23, as well as a football tailgate on September 17th for "The South's Oldest Rivalry" against the University of Virginia. Alumni and fans are welcome to attend.

The Geology Club plans to attend the Carolina Geological Society annual meeting and field trip to the Deep River Triassic basin in October, as well as the AEG Field Techniques Symposium and the fall meeting of the Carolinas Section of AEG. Plans are in the works to host a panel of professionals and academics to discuss the discovery of natural gas in North Carolina and its consequences for geologists and for the state. The club meets most Wednesday nights at 7:00 pm in the Mitchell Hall lounge at UNC-Chapel Hill. **For more information, email club-president JAHallma@email.unc.edu.**

### LETTERS FROM RANDY

*By Randy Bechtel, NC Geological Survey,*

I am very happy to announce two new outstanding earth science award winners:

- The winner of the 2011 Outstanding Earth Science Teacher (OEST) Award is Mr. Tim Martin from Greensboro Day School in Greensboro, N.C.
- The winner of the 2011 Outstanding Earth Science Educator (OESE) Award is Dr. Andy Heckert from Appalachian State University in Boone N.C.

Both of these individuals exhibit exceptional skills in earth science education. The awards will be presented at the science teacher's conference, NCSTA-PDI, in November (see more information below). More information to come soon.

#### Geoscience Education Events

Here is a list of upcoming North Carolina events:

- October 12-15, 2011 – NAAEE Raleigh North Carolina
- October 2011 – Carolina Geological Society (CGS) Date/Field Trip October 21-23
- November 9-11, 2011 – NCSTA Greensboro, North Carolina
- March 31-April 2, 2012- SEGSA Asheville, North Carolina
- Fall 2012 – CGS TBD
- November 4-7, 2012 - GSA Charlotte, North Carolina

#### North Carolina Science Teachers Association Professional Development Institute (NCSTA-PDI)

The NCSTA-PDI will be November 9-11, 2011 in Greensboro, North Carolina [www.ncsta.org/](http://www.ncsta.org/). This year will again see the N.C. Aggregates Association organizing and providing literally tons of rock samples at the PDI. In conjunction with the rock giveaway, I put a call out to earth science teachers and educators to send in proposals to the PDI to present their rock kit geoscience activities

*(Continued on page 17)*

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## EDUCATION SECTION

(Continued from page 16)

(or any kind of geoscience activity) to highlight the rock giveaway and assist teachers with geoscience education in their classrooms. This would be a great opportunity for AEG members to not only meet teachers but see what kinds of activities are most useful to teachers.

The PDI is also where the state winner of the Outstanding Earth Science Teacher (OEST) and Outstanding Earth Science Educator (OESE) are presented

### Southeastern Geological Society of America (SEGSA) and GSA

Through a quirk of scheduling, North Carolina will be hosting SEGSA in Asheville, N.C. March 31-April 2, 2012: Shaping Continents, Shaping Landscapes, Shaping Policy and national GSA in Charlotte, N.C. November 4-7, 2011. The latter meeting is the weekend before the North Carolina Science Teachers Association Professional Development Institute in (NCSTA).

I have sent in a proposal for the SEGSA in Asheville to continue the theme from the geoscience education session at the previous meeting. The proposal's emphasis is on assisting outstanding earth science teachers to mentor students and new, or geologically inexperienced, teachers to help them understand the interconnectedness of geology over a wider range of topics than identifying rocks and minerals and learning the layers of the Earth. Industry, Government and Academia can support teachers by providing understandable information in an understandable format so that real world connections can be made. Another aspect to this process is the revision of the National Science Curriculum (in process, see Conceptual Framework this article), the Race to the Top program and how geoscience education is affected by these programs.

Planning has just begun for the **National GSA in Charlotte, N.C.** November 4-7, 2012. The theme is Investing in the Future. Jake Armour UNCC is the chair of the K-12 Education committee for this conference, and I am a co-chair along with Eric Pyle from JMU. Other committee members are Scott Hippensteel and Andy Bobyarchick both from UNCC. We will soon be soliciting ideas and assistance for workshops, field trips and ideas for other ways to work with earth science teachers.

### Environmental Education

Even though the Office of Environmental Education has been deeply cut, the Environmental Education Certification program is still active. The certification is a program for informal educators to learn new teaching skills, hone old skills, and get a first hand idea of the education that occurs outside the formal education arena. The certification will give you a background in environmental education (not environmentalism or activism) and teach effective communication techniques for multiple learning styles, age levels and audiences. This program is flexible so the 40-hour work week person can complete the certification program in the allotted time. For more information go to <http://www.eenorthcarolina.org/>

### The National Association of Environmental Educators (NAAEE)

NAAEE will be holding its 40th annual conference in downtown Raleigh at the new convention center October 12-15, 2011. Here is the link to register for the conference along with more information about the organization <http://www.naaee.net/conference/program>

### Curriculum State and National

#### N.C. Department of Public Instruction and Curriculum.

The following is an excerpt from an email sent in July to North Carolina teachers by the State Superintendent **June Atkinson**.

"Dear North Carolina Teachers,

..... This week, curriculum specialists and other education leaders gathered in the western region to begin a summer-long series of institutes designed to help local educators prepare for the 2012-13 school year when North Carolina public schools will:

- Implement an entirely new standard course study in all subjects and grades;
- Use new student assessments to track student performance; and
- Measure school success with a

(Continued on page 18)



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## EDUCATION SECTION

*(Letters from Randy—Continued from page 17)*

new accountability model.

Teams from every school district are participating in the regional Summer Leadership Institutes, which will be followed this fall with special sessions for principals and additional local professional development activities. Thanks to federal Race to the Top funding, we are able to support a widespread professional development initiative to help all of us be ready for fall 2012.

These changes are **significant**.

This marks the first time in my career of more than 30 years that North Carolina public schools have transformed our classroom practices and expectations so completely. When the early work on the new essential standards and Common Core began more than two years ago, we knew that we needed to build into our implementation plan professional development and ongoing communication so that all teachers, principals, instructional and curriculum leaders and central office staff would be well prepared and fully supported for the changes ahead.

Beginning with this email, our Communications staff will be providing you with a monthly calendar that highlights activities to support our transition to 2012-13 and helps you consider your role in the changes that are coming. This calendar will include a few additional informal items to help you get to know the state-level leaders guiding this work and to give you food for thought and, perhaps, a little inspiration for the journey ahead.

This is just one small way that we hope to support the many activities that are before us. Thank you for everything you do on behalf of our state's more than 1.4 million public school students.

All the best, **State Superintendent June Atkinson**"

### National Standards - Conceptual Framework

The 'Conceptual Framework for K-12 Science Education' is available at [www.national-academies.org](http://www.national-academies.org). Both NAGT and NSTA have held webinars discussing how earth science fits into the conceptual framework and the ramifications for national and state curricula. For more information visit their respective national websites. The following is excerpted from the original National Academies announcement email:

"The framework will serve as the basis for new national K-12 science education standards. It offers a new vision for K-12 education in science and engineering, and embodies a significant shift in how these subjects are viewed and taught. It will also inform the work of curriculum and assessment developers, researchers, teacher educators, and others."

### Race to the Top request for involvement:

Here is a request from Jennifer Preston Race to the Top Project Coordinator for Teacher and Leader Effectiveness. Her contact information is listed below:

"We are just kicking off our recruitment for educators to join work groups that will design measures of student learning for all of the non-tested grades and subjects. The registration page is up and running, and can be accessed at <http://tinyurl.com/NCDPIworkgroups>.

These work groups are a wonderful opportunity for teachers to become involved in the discussion of what students should know and be able to do as a result of their time in NC schools.

If you have any questions, please don't hesitate to contact me via phone or email.

All the best,

*Randy*

Randy Bechtel, CEE  
Project Geologist - Environmental Education  
[Randy.Becht@ncdenr.gov](mailto:Randy.Becht@ncdenr.gov)  
NCGS website: <http://www.geology.enr.state.nc.us/>  
[P] 919.807.4187 [Please note new phone number.]  
[C] 919.448.5967

PS— Below are links to **almost free space shuttle tiles** and astronaut food; geoscience education information from the southeast region; and three links with great information about the mobile ribbon of sand called the outer banks. I will also have some more information soon about the aftershocks from the Virginia earthquake.

Links to Earth Science Info:

1. NASA Offers Shuttle Tiles And Space Food To Schools And Universities  
[http://www.nasa.gov/home/hqnews/2011/sep/HQ\\_11-296\\_Shuttle\\_Tiles\\_Space\\_Food.html](http://www.nasa.gov/home/hqnews/2011/sep/HQ_11-296_Shuttle_Tiles_Space_Food.html)
2. Get the latest information about what is happening in Geoscience Education around the southeast!  
<http://facstaff.gpc.edu/~pgore/nagt/Summer-Fall2011.pdf>
- Erosion issues from Hurricane Irene
3. Hurricane Irene does one good deed – widens Oregon Inlet  
<http://hamptonroads.com/2011/09/hurricane-irene-does-one-good-deed-widen-oregon-inlet>
4. Plume of muck from recent storms heading our way  
<http://hamptonroads.com/2011/09/plume-muck-recent-storms-heading-our-way>
5. From East Carolina University Past, present and future inlets of the outer banks barrier islands, NC  
[http://www.ecu.edu/icsp/ICSP/Reports\\_files/PastPresentAndFutureInletsDec2008.pdf](http://www.ecu.edu/icsp/ICSP/Reports_files/PastPresentAndFutureInletsDec2008.pdf)



## EDUCATION SECTION

### FIELD TECHNIQUES SYMPOSIA FOR GEOLOGY STUDENTS THIS FALL IN RALEIGH AND CHARLOTTE

*By Rick Kolb, Section Student Liaison*

The Carolinas Section of AEG will offer two symposia this semester to show students some of the field techniques used by environmental and engineering geologists. We will hold one in Charlotte on Saturday, October 29 at a location to be determined (probably UNC-C campus; still working on that at press time). We will hold the other at the Lake Wheeler campus of NCSU in Raleigh on Saturday, November 12. We will start the symposia at 11 AM with doughnuts and coffee and finish by 4 PM, after which our section will offer students a pig pickin' during which we can talk more about the techniques we demonstrated and provide time for one-on-one interactions with practicing geologists.

The following contractors have graciously offered the complimentary use of the drill rigs/Geoprobe: SAE-DACCO of Ft. Mill, SC (also a section sponsor), Troxler Geologic Services of Raleigh, Parratt-Wolff of Hillsborough (also a section sponsor), and Summit Consulting of Hillsborough. Since drilling contractors don't plan their drilling schedules months in advance, note these symposia are contingent upon availability of the drilling equipment on those Saturdays (drillers don't work on Saturdays usually).

AEG geologists and these drilling contractors will show you the following field techniques:

- \* See what a typical health and safety plan looks like
- \* Advance borings with a drill rig using hollow stem augers and collect soil samples from split spoons
- \* Advance soil probes with a Geoprobe and collect soil samples from the acetate sleeves
- \* Fill laboratory containers with soil samples collected by these methods
- \* Screen soil samples with an organic vapor analyzer or photoionization detector
- \* Collect soil samples for geotechnical testing
- \* Construct temporary wells in borings advanced with hollow stem augers, using PVC riser and well screen
- \* Sample wells with bailers and measure water-quality parameters with field equipment
- \* Construct temporary wells in probe holes, collect samples from samples pumped through tubing
- \* Fill laboratory containers with groundwater samples
- \* Complete a laboratory chain of custody
- \* Gauge depths to the water table in the wells with an electronic meter
- \* Abandon the borings and wells

We will have each rig set up separately so that students can see closely how the drilling and sampling are done. We expect the locations we select will have the water table shallow enough to allow us to collect groundwater samples from temporary wells. We will limit registration at each location to 30 students to ensure you will be able to clearly see these methods. To register for one of these symposia, send an email to Rick Kolb at [rkolb0915@aol.com](mailto:rkolb0915@aol.com) no later than three days before the symposium you select. The charge for the symposium is a nominal \$5. You will pay in cash at the symposium.

**We are looking for AEG members who would like to work the back of the rigs and show the sampling techniques. Let Rick Kolb know if you'd like to do this.**



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Vice President

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## EDUCATION SECTION

### FALL SEMINAR OFFERED ON THE ASBOG FUNDAMENTALS OF GEOLOGY EXAM

*By Rick Kolb, Section Student Liaison*


The Carolinas Section makes Visiting Professionals presentations at the colleges and universities across the state. As part of our presentations, we encourage students to consider taking the Fundamentals of Geology (FG) exam as soon as a student is qualified, whether or not you know what the student knows his/her career path. After our visit to NC State University last spring, a group of graduate students expressed interest in learning more about the exam. In response to this request, the Carolinas Section of AEG will present a seminar on the Fundamentals of Geology exam from 6:00-7:30 PM in Jordan Hall at NC State University on Thursday, November 10, 2011.

This seminar is NOT a review session for the exam, such as those courses offered by several companies, including Reg Review, Inc. The objective of this seminar is to provide information on registering to take the exam, an introduction to the exam, a preview of what test-takers will see, a discussion on what the test environment is like, and suggestions for test-taking strategies. The presenters will be Daphne Jones, L.G., and Clark Wipfield, G.I.T., of environmental consultant Duncklee & Dunham of Cary. Both passed the FG exam that was given last spring. Daphne has over 25 years of experience and thus has been out of school for quite a while, whereas Clark, an NC State graduate, has been out of school for eight years, though part of those eight years was spent in the military, including service in Iraq. Thus, how Daphne and Clark prepared for the exam, and their beginning points in preparation, were quite different. Clark has taken the one-day Reg Review course ([www.regreview.com](http://www.regreview.com)) and can answer questions about it. Daphne took a two-day Pennsylvania Council of Professional Geologists course ([www.pcpge.org](http://www.pcpge.org)) to prepare for both the FG and Practice

of Geology (PG) exams and can answer questions about that course.

The next FG exam will be offered in Raleigh on Friday, March 2, 2012. Applications to take the exam must be received at least 75 days prior to the exam. Procedures for registering for the exam are on the website of the North Carolina Board for the Licensing of Geologists ([www.ncblg.org/exam](http://www.ncblg.org/exam)).

To register for this seminar, send an email to Rick Kolb at [rkolb0915@aol.com](mailto:rkolb0915@aol.com) no later than November 7, 2011. There is no charge to attend.



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**EDUCATION SECTION****CALL FOR VOLUNTEERS AND DONATIONS FOR NCSTA CONFERENCE NOVEMBER 10-11, 2011**

AEG Carolinas has been participating in the Earth Science Kit Giveaway for years, purchasing hundreds of earth science kits developed by the American Geological Institute (AGI) for Earth Science Week. This valuable resource has never been more important than in the last several years of budget cuts to education. The AGI Earth Science Week 2011 Toolkit includes:

- \* A 12-month school-year activity calendar, suitable for hanging
- \* The new Earth Science Week poster, with learning activity
- \* American Chemical Society global water experiment materials
- \* National Park Service items on fossils, air & geologic heritage
- \* NASA education resources examining Earth from space
- \* A poster on earthquakes and seismology from IRIS
- \* A GIS-in-science-education resource from ESRI
- \* A poster by SPE on renewable and nonrenewable energy
- \* A genuine field notebook from Rite in the Rain
- \* Educational material from the U.S. Fish and Wildlife Service
- \* A USGS poster on the bicentennial of the New Madrid quake

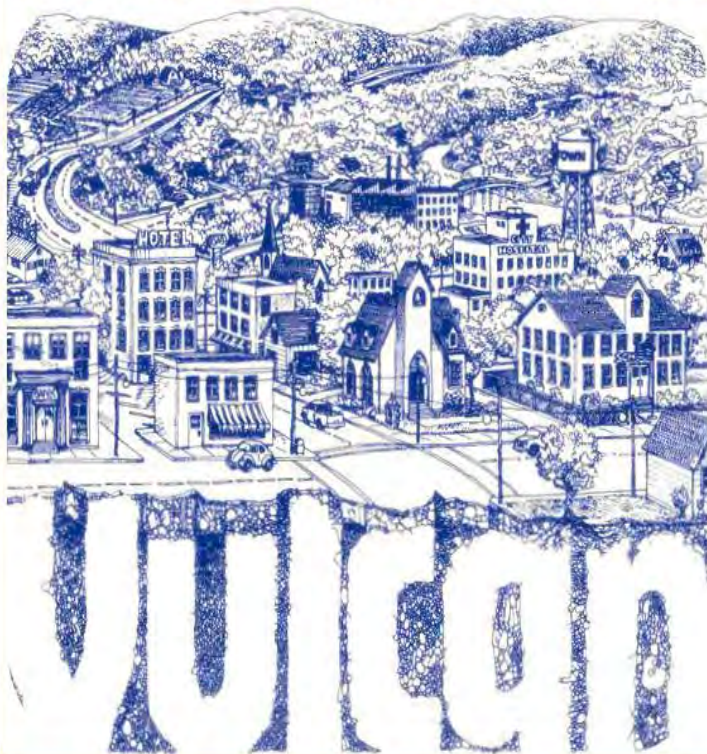
- \* Activity sheets from the Association for Women Geoscientists
- \* Brochures, bookmarks, fact sheets, postcards, and more.

AEG Carolinas also provides volunteers to pack up rock samples and descriptive flyers for use in the classroom. The rocks are provided through the generosity of the North Carolina Aggregates Association and their members and colleagues. However, the rock samples are delivered to the Koury Convention Center in Greensboro in bulk. Our job as volunteers is to pick out several of the samples from each of about ten 55 gallon drums, and put them in a small carrying bag with the information flyer. It is heavy work, but with many hands the work is made light.

We also need volunteers to give away these materials (Earth Science Kits and the rock kits) to each of hundreds of resource-starved teachers there for the conference in November. They come to the booth like a school of fish at a feeding frenzy, so the more volunteers the better! To donate funds for purchase of the Earth Science Kits, or to volunteer your time to pack the rock kits or distribute them at the NCSTA Conference, please email Paul Weaver, AEG Carolinas Section Chair at [pmweaver@bellsouth.net](mailto:pmweaver@bellsouth.net).

More information about the November 10-11, 2011 NCSTA Conference may be found at <http://www.ncsta.org/>.

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## ANNOUNCEMENTS

**Pete Byer, SAEDACCO.** September will be a big month for SAEDACCO as we introduce **Roto-Sonic drilling** to our current line of conventional drilling, direct push and soil and groundwater remediation services. Our new Geoprobe 8140LS will be arriving during the first week of September and will be ready for work. Let us know if we can be of assistance to you on your next project. Pete Byer, pbyer@saedacco.com, www.saedacco.com. SAE-DACCO is a long-time AEG Carolinas sponsor.

**Sustainability Technical Working Group.** AEG is establishing a Sustainability Technical Working Group (STWG). The purpose of the STWG is to explore and research industry wide standards/practices that may be established and implemented in the engineering and environmental geology professions that allow the professions to become more sustainable. AEG is looking for members that are interested in joining this newly created committee to help construct the vision and path forward of the STWG. Please contact Bruce Hilton at if you're interested and help us Get Greener!

**AGI Announces Fall Publications Sale.** Beginning September 2, the American Geological Institute (AGI) is offering deep discounts of up to 90% off on various titles for purchases made by October 1, 2011. All Global GIS CD-ROMs and DVDs are marked down to an incredible \$10.00. Minerals: Foundations of Society and the Glossary of Hydrology (normally \$40.00) will each be available for \$10.00. The Glossary of Geology is on sale for \$69.00 (regularly \$99.95). Shipping is extra, while supplies last. Visit the AGI publications website at <http://www.agiweb.org/pubs/> to learn more about this special limited time offer and our many other books, DVDs, t-shirts also on sale!

**Rick Kolb Appointed to NC Board for Licensing of Geologists.** Rick Kolb, of Dunklee & Dunham, has been appointed to serve on the North Carolina Board for Licensing of Geologists. Rick represents consulting geologists and replaces Ann Borden of Solutions-IES, who served for two, 3-year terms and was chair of the board. The other members of the board are a licensed geologist in each the private sector, the mining sector and the education sector, and a member of the public. As State Geologist, Jim Simons is an ex officio member of the board. The board meetings are held quarterly, typically in North Raleigh, and are open to the public. Details are at [ncblg.org](http://ncblg.org).

## JOB OPPORTUNITIES

This just came in from Timothy Skeen by way of AEG:

Our Geologist vacancy announcements are currently advertised on the USA Jobs web site: [www.usajobs.opm.gov](http://www.usajobs.opm.gov). There are four separate announcements for our vacancies. I hope to select up to 3 candidates from the four referrals. The announcement numbers are as follows:

- WTHI11314442526160D5 - GS-05;
- WTHI11314442526074D7 - GS-07;
- WTHI11314442526022D - GS-09; and
- WTHI11314442525302 - GS-09.

The first three announcements are Delegated Examining Unit (DEU), which are for outside-the-government candidates. The last announcement is a Merit announcement for candidates that have status. (i.e. either currently work for the government or have reinstatement rights) The advertisement period is 1 through 9 September. Please help me get the word out to potential candidates. If anyone has questions, please refer them to me. Thanks for your help ---- Tim

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# **GSA 2012 Charlotte, NC**

## **“Geosciences: Investing in the Future”**

**2012 Geological Society of America  
Annual Meeting and Exposition  
November 4-7, 2012**

**An Invitation to all AEG members...**

**Please help us to make the Charlotte GSA one to remember . . .**

**Take on a leadership role in the meeting by chairing a session, leading a short course, or organizing a field trip for participants or their guests.**

**Submit a proposal for any of the above online at [www.geosociety.org](http://www.geosociety.org) starting the first week of October.**

### **Deadlines:**

**Field Trip Proposal: 1 December 2011**

**Topical Session Proposal: 10 January 2012**

**Short Course Proposal: 1 February 2012**

**Abstract Deadline: 14 August 2012**

### **Contact For More Information**

**Missy Eppes [meppes@uncc.edu](mailto:meppes@uncc.edu)**

**John Diemer [jadiemer@uncc.edu](mailto:jadiemer@uncc.edu)**

**Andy Bobyarchick [arbobyar@uncc.edu](mailto:arbobyar@uncc.edu)**

**Rob Young [ryoung@email.wcu.edu](mailto:ryoung@email.wcu.edu)**



**See you in Charlotte!**





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*Quarterly board meeting minutes (Continued from page 7)*

Geology.” Brad and Paul are the conveners

Abstracts are due by January 17

Brad and Paul need help recruiting speakers. We can bring it up at Packs in September. Jane can put an article in the newsletter (21st of September). Brad will be giving a talk. The format is 15 minute talks with 5 minutes of Q and A.

Financial sponsorship for Asheville GSA meeting: \$500 total (including booth fee)

14) **GSA National meeting in Charlotte on Nov 4 – Nov 12, 2012**

We have offered to put on a symposium on “Practical Applications of Engineering Geology” and/or “Practical Applications of Environmental Geology”; we are still waiting for a response from the organizing committee (this will be the same as the Asheville GSA meeting except environmental will also be included)

We need to talk with Becky about national meeting booth

Financial sponsorship for Charlotte GSA meeting: \$500 total

15) **Annual membership renewals**

We need to be thinking about the best way to assure renewals and get people who haven’t renewed in the last year or so to do so...Any ideas?

Since our mailing list is much bigger than our membership, we need to solicit to those on the list.

Need to encourage teachers that attend events to join AEG. We already provide resources to teachers.

Please email other ideas to Fred.

Email will be sent out after annual meeting to remind member to renew, and then paper mailers will be sent after that. There will be a \$5 discount if members renew before the first of year.

16) **Scholarships from Carolinas Section**

Board voted to grant \$500 for a student to attend the annual meeting, \$500 for a student to attend school, and \$500 for a student to attend field camp.

Paul will take care of this per Jenn’s suggestion (somehow tying them to National’s scholarship process) within the next month.

17) **Alaska meeting**

A reminder that we are sponsoring the special event for \$1000

Paul leaves on Monday, September 19 and returns on Monday, September 26

18) **Carolinas Section Social Committee**

Our first event was the Durham Bulls game; we paid for 20 tickets and had 14 show up, so we lost around \$48 (article on page 9)

Rick has mentioned having monthly gatherings at **micro-breweries**. No section money is required for these gatherings. (article on page 12)

19) **NC Science Teachers Associations Meeting**

Coming up this November 10 and 11, setup on the 9th

There will be a rock giveaway again

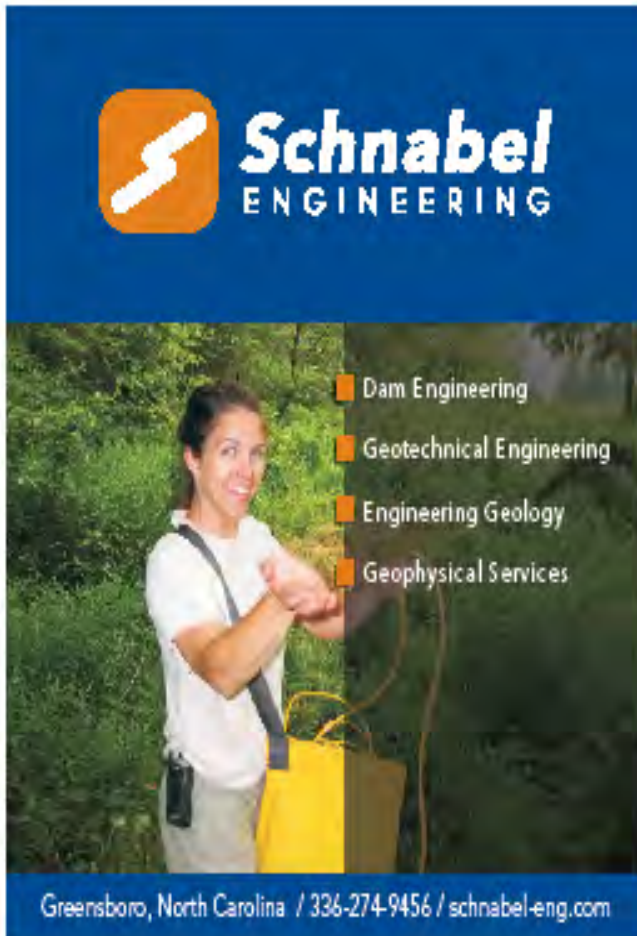
Expect about 2,000 teachers to attend

We have ordered 450 Toolkits, which cost about \$3,000. We have received \$100 from Dr. Welby for the kits. GWPNC is planning on donating \$650, as they did last year. Jane plans to donate \$250.

Please e-mail Paul with suggestions for handling the fundraising effort.

20) **South Carolina Membership involvement**

*(Continued on page 27)*



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(Continued from page 26)

One of the initiatives Paul wants to undertake in his second term as Chair is to greatly increase our South Carolina membership's involvement in the Section. He needs everyone on the Board to brainstorm and come up with a list of at least 3 things that we can do to increase the involvement of the members.

Please email your ideas to Paul. Ideas mentioned during the conference call:

Field trip in South Carolina

Have meetings in South Carolina. Last Columbia meeting was successful, 50-60 people. However, we need someone in SC to set up meetings.

Possibly have a SC chapter, which worked well in southern California.

Brad has a hotel contact in Myrtle Beach which should allow us to get reduced rates. We may be able to do something there in the spring (out of peak season).

- 21) **Rick Kolb was recently selected to serve on the Geology licensing board for NC.** Congratulations Rick! (Article on page 22)
- 22) **Jane Gill-Shaler mentioned that the newsletter will need to be handed off to someone else soon.** Please let Jane or Paul know if you would like to spearhead the newsletter effort.

**Addition to minutes from Dave Dunklee:**

I wanted to be sure you all know progress is being made with AEG Carolinas Section sponsoring of the March 2012 Redox event here in Raleigh. Email blasts are going out soon to AEG members, the announcements have already been forwarded to past attendees, and Jane will be placing the info in the next newsletter. We will again need the booth from national. (See flyer for Redox Tech event on pages 14-15)



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- Ultra Silent Diesel Generator, 230volt 3 Phase, Push Start, Auxiliary 115 and 230V Outlets
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*Carolina Geological Society 2011 Field Trip*  
**Geology, Natural Gas Potential, and Mineral Resources of Lee,  
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**Southern Pines, NC - October 21 – 23, 2011**

**Field Trip Details:** The 72<sup>nd</sup> meeting of the Carolina Geological Society will occur near Sanford, NC under the leadership of Kenneth Taylor, Tyler Clark, and Phil Bradley. We invite you to join fellow geoscientists as we travel in and around the Deep River Triassic basin to examine the geology, natural gas potential, and mineral resources of the area.

- Learn about the tectonic forces that ripped the Supercontinent Pangea apart
- Examine outcrops of the Late Triassic Sanford, Cumnock, and Pekin Formations
- Visit an abandoned 19th-century coal mine to examine intrusives, fractures, faults & coal
- Collect Late Triassic plant fossils, some of the oldest plant fossils in North Carolina
- Participate in a discussion on the potential energy resources in the area from shale gas
- Collect large pyrite cubes from a nearby quarry

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Website: <http://www.hampton-inn.com/hi/southernpines>

You are responsible for making your own hotel reservations. **NOTE: Mention CGS** when making reservations to receive the reduced meeting rate of \$89/night + tax for a king or 2 double beds. Room rate includes free hot breakfast buffet. There is also a Starbucks Coffee and a Panera Bread in the hotel parking lot. A block of 50 rooms is reserved. **Room reservation deadline is October 7, 2011.**

**Registration Fee:** The main registration fee covers the Friday night Welcoming Beer and Buffet dinner, as well as

Saturday bus transportation, lunch, and coffee/snack breaks. A separate registration fee covers Sunday bus transportation and morning coffee break. Field trip guidebooks are an additional charge as well. Transportation for both field trip days will be by chartered buses. Because of limited parking, no other vehicles will be permitted to transport participants on either day, and space on buses will be limited. Both day's trips will depart and end at the Hampton Inn in Southern Pines.

**PLEASE REGISTER EARLY! REGISTRATION DEADLINE IS OCTOBER 12, 2011. THERE WILL BE NO ONSITE REGISTRATION.**

**Welcoming Beer and Buffet:** New to CGS !!! This year we are doing something different instead of a formal banquet! Please join us for a fully catered Beer and Buffet on Friday, October 21, 7–10 pm, at the Hampton Inn. Please note there is no separate charge for this event - the cost has already been included in your meeting registration.

**Annual Business Meeting and Field Trip Introduction:** A brief business meeting will be held right before the field trip in the Magnolia Room. The business meeting will be immediately followed by a short Powerpoint presentation outlining the local geology and field stops that will be visited during the next two days.

**Saturday Evening Banquet: THERE WILL BE NO SATURDAY EVENING BANQUET.** Dinner is on your own. There are numerous restaurants within easy walking distance or a short drive.

**Questions about the field trip?:** Contact CGS Secretary-Treasurer Tyler Clark at 919-412-3021 or at [carogeosoc@me.com](mailto:carogeosoc@me.com).

**Registration Form: 2011 Carolina Geological Society Annual Meeting and Field Trip: Geology, Natural Gas Potential, and Mineral Resources of Lee, Chatham, and Moore Counties, North Carolina. Southern Pines, NC - October 21 – 23, 2011** **Registration Deadline October 12, 2011. Register Early. No On-Site Registration.**

Full Name \_\_\_\_\_

(please use one registration form per person)

Name to be used on Badge: \_\_\_\_\_

Street Address, City, State, Zip: \_\_\_\_\_

Company/Affiliation: \_\_\_\_\_

Phone and email: \_\_\_\_\_

Do you require a South Carolina Continuing Education Certification Receipt? Yes No

(Receipts will be emailed after successful completion of the field trip).

Do you have any special dietary restrictions we should be aware of? Yes No

Please explain: (e.g., vegetarian, vegan, food allergies) \_\_\_\_\_

FIELD TRIP RATES	PROFESSIONAL	REDUCED RATE	COST
Friday Welcoming Party & Saturday Field Trip	\$75	\$25	
Sunday Field Trip	\$60	\$15	
Guidebook	\$20	\$5	
		<b>TOTAL COST:</b>	

*Reduced rate intended for students (high school or college) and K-12 teachers only.*

Make Checks Payable to **Carolina Geological Society**. Mail Check and Form to:

Carolina Geological Society, PO Box 31541, Raleigh, NC 27622. For more info, go to [www.carolinageologicalsociety.org](http://www.carolinageologicalsociety.org)

## CALENDAR OF EVENTS - 2011-2012

### *Geological Events in the Carolinas*

Courtesy of AEG Carolinas Section – [www.aegcarolinas.org](http://www.aegcarolinas.org). Last updated September 17, 2011

Send updates/corrections to Rick Kolb, Duncklee & Dunham, [rkolb0915@aol.com](mailto:rkolb0915@aol.com).

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

#### **Date: Thursday, September 29, 2011**

Event: Carolinas Section “Summer” Meeting

(okay, technically it’s not summer)

Location: 6:00 PM at the South Bar of Pack’s Tavern; Asheville, NC

Speaker: Jenn Bauer, President of AEG

Topic: North Carolina Geological Survey Landslide Hazard Mapping Program – What We Learned and How You Can Use It

Contact: RSVP by September 26 to Frederick Love, (828) 989-0645; [Frederick.love@trs-environmental.com](mailto:Frederick.love@trs-environmental.com)

#### **Date: October 3-4, 2011**

Event: R.C. Heath Symposium -- East Carolina Center for Coastal Water Resources – “Aquifer Management in the Mid-Atlantic States”

Location: Hilton Hotel, 207 SW Greenville Boulevard, Greenville, NC

Details: [www.aipg.org](http://www.aipg.org)

#### **Date: Tuesday, October 4, 2011 (meetings are held monthly on the first Tuesday of the month)**

Event: Engineers Without Borders monthly meeting, Research Triangle Park Professional Chapter

Location: 6:30-8:00 PM at the offices of Camp Dresser & McKee; 5400 Glenwood Avenue; Raleigh

Contact: Bill Buckner, Chapter President, [wbuckner@nc.rr.com](mailto:wbuckner@nc.rr.com)

#### **Date: Thursday, October 6, 2011**

Event: Ground Water Professionals of North Carolina Fall meeting

Location: 6:00 social, 7:00 dinner, 8:00 speaker at the Hickory Tavern, 9010 Harris Corners Parkway, Charlotte

Speaker: Tom Slusser, UIC Program Manager, NCDENR

Topic: Proposed Rule Changes to the UIC Program

Contact: RSVP by 5:00 PM on October 3 to Kelly Dillon, (919) 618-1498, [Kelly.dillon@pacelabs.com](mailto:Kelly.dillon@pacelabs.com)

#### **Date: October 9-15, 2011**

Event: Earth Science Week

Location: World-wide

Details: [www.earthscienceweek.org](http://www.earthscienceweek.org)

#### **Date: Thursday, October 13, 2011**

Event: First Monthly (?) Carolinas Section Brewpub Social

Location: Boylan Bridge Street Brewpub, 201 South Boylan Street, Raleigh, 6:00-7:30± or whenever the last person leaves

Contact: Adam Phillips, [adam.phillips@sgs.com](mailto:adam.phillips@sgs.com) or Rick Kolb, [rkolb0915@aol.com](mailto:rkolb0915@aol.com)

#### **Date: Friday, October 14, 2011**

Event: Fundraiser for NC State Geology Club/ AEG Student Chapter

Location: Dinner buffet, with a percentage of sales going to the Geology Club - Sammy’s Tap & Grill, 2235 Avent Ferry Road, Raleigh

Contact: Katherine Ryker, Geology Club Vice President, [katherine.ryker@gmail.com](mailto:katherine.ryker@gmail.com)

#### **Date: October 17-18, 2011**

Event: Site Characterization in Support of Fractured Rock Remediation projects

Location: Denver, Colorado

Contact: National Ground Water Association, [www.ngwa.org](http://www.ngwa.org)

#### **Date: October 17-18, 2011**

Event: Applications of Groundwater Geochemistry

Location: Nashville, Tennessee

Contact: National Ground Water Association, [www.ngwa.org](http://www.ngwa.org)

#### **Date: October 17-19, 2011**

Event: The Complete Ground-Water Monitoring Field Course

Location: Las Cruces, New Mexico

Contact: The Nielsen Environmental Field School; [www.envirofieldschool.com](http://www.envirofieldschool.com)

#### **Date: Thursday, October 20, 2011 (meetings are held monthly on the third Thursday of the month)**

Event: South Carolina Association of Environmental Professionals monthly meeting

(Continued on page 31)



(CALENDAR—Continued from page 30)

Location: 6:30 PM social, 7:00 presentation at  
Edens & Avant, 1221 Main Street; Columbia,  
North Carolina

Details: Craig Dukes, GEL Engineering,  
[craig.dukes@gel.com](mailto:craig.dukes@gel.com)

**Date: October 20-21, 2011**

Event: The Complete Surface Water and Sedi-  
ment Sampling Field Course

Location: Las Cruces, New Mexico

Contact: The Nielsen Environmental Field  
School; [www.envirofieldschool.com](http://www.envirofieldschool.com)

**Date: Friday-Sunday, October 21-23, 2011**

Event: Carolina Geological Society Annual Meet-  
ing and Field Trip

Title and Location: Geology, Natural Gas Poten-  
tial, and Mineral Resources of Lee and Moore  
Counties, NC

Contact: Tyler Clark - [carogeosoc@me.com](mailto:carogeosoc@me.com). Also  
check [www.carolinageologicalsociety.org](http://www.carolinageologicalsociety.org)

**Date: October 24-28, 2011**

Event: The Remediation Course

Location: Miami, Florida

Contact: [www.princeton-groundwater.com](http://www.princeton-groundwater.com)

**Date: Thursday, October 27, 2011**

Event: Carolinas Section Fall Meeting

Location: Natty Greene's Tavern, Greensboro

Speaker: John Dills of Progress Energy, Director  
of Refueling and Turbine Services

Topic: Progress Energy – A Balanced Solution

Contact: Paul Weaver, [pmweaver@bellsouth.net](mailto:pmweaver@bellsouth.net)

**Date: Saturday, October 29, 2011**

Event: Symposium on Field Techniques for Envi-  
ronmental and Engineering Geology

Location: UNC-Charlotte campus, 11:00 AM –  
4:00 PM

Contact: Rick Kolb, Section Student Liaison,  
[rkolb0915@aol.com](mailto:rkolb0915@aol.com)

**Date: October 30-November 2, 2011**

Event: Environmental Geochemistry of Metals:  
Investigation and Remediation

Location: Salt Lake City, Utah

Contact: National Ground Water Association,  
[www.ngwa.org](http://www.ngwa.org)

**Date: October 30-November 2, 2011**

Event: Environmental Geochemistry of Metals:  
Investigation and Remediation

Location: Salt Lake City, Utah

Contact: National Ground Water Association,  
[www.ngwa.org](http://www.ngwa.org)

**Date: Tuesday, November 1, 2011 (meetings  
are held monthly on the first Tuesday of the  
month)**

Event: Engineers Without Borders monthly meet-  
ing, Research Triangle Park Professional  
Chapter

Location: 6:30-8:00 PM at the offices of Camp  
Dresser & McKee; 5400 Glenwood Avenue;  
Raleigh

Contact: Bill Buckner, Chapter President, [wbuckner@nc.rr.com](mailto:wbuckner@nc.rr.com)

**Date: November 7-8, 2011**

Event: Monitored Natural Attenuation: Mecha-  
nisms, Site Characterization, Evaluation and  
Monitoring

Location: Newark, New Jersey

Contact: National Ground Water Association,  
[www.ngwa.org](http://www.ngwa.org)

**Date: November 7-9, 2011**

Event: The Complete Soil Sampling Field Course

Location: Las Cruces, New Mexico

Contact: The Nielsen Environmental Field  
School; [www.envirofieldschool.com](http://www.envirofieldschool.com)

**Date: November 9-10, 2011**

Event: Advanced Data Analysis Techniques for  
Evaluating and Quantifying Natural Attenua-  
tion

Location: Newark, New Jersey

Contact: National Ground Water Association,  
[www.ngwa.org](http://www.ngwa.org)

**Date: Thursday, November 10, 2011**

Event: Seminar for those planning to take the AS-  
BOG's Fundamentals of Geology exam

Location: Jordan Hall, North Carolina State Uni-  
versity, Raleigh, 6:00-7:30 PM

Contact: Rick Kolb, Section Student Liaison,  
[rkolb0915@aol.com](mailto:rkolb0915@aol.com)

**Date: November 10-11, 2011**

Event: Professional Development Institute  
(annual meeting) of the North Carolina Sci-  
ence Teachers Association

Location: Koury Convention Center, Greensboro

Contact: [www.ncsta.org](http://www.ncsta.org)

The Carolinas Section will pass out AGI Earth  
Science Toolkits and bags of rock samples

**Date: Saturday, November 12, 2011**

Event: Symposium on Field Techniques for Envi-  
ronmental and Engineering Geology

Location: Lake Wheeler Farm campus of NCSU,  
Raleigh, 11:00 AM – 4:00 PM

Contact: Rick Kolb, Section Student Liaison,

(Continued on page 32)

(CALENDAR—Continued from page 31)

[rkolb0915@aol.com](mailto:rkolb0915@aol.com)

**Date: Thursday, November 17, 2011 (meetings are held monthly on the third Thursday of the month)**

Event: South Carolina Association of Environmental Professionals monthly meeting

Location: 6:30 PM social, 7:00 presentation at Edens & Avant, 1221 Main Street; Columbia, North Carolina

Details: Craig Dukes, GEL Engineering, [craig.dukes@gel.com](mailto:craig.dukes@gel.com)

**Date: Thursday, December 1, 2011**

Event: Presentation by AEG President Jennifer Bauer

Topic: North Carolina Geological Survey Landslide Hazard Mapping Program – What We Learned and How You Can Use It

Location: Main Campus, Wake Technical Community College, Raleigh, 1:00-2:15 PM

Details: Gretchen Miller, geology professor, [glmiller@waketech.edu](mailto:glmiller@waketech.edu)

**Date: Thursday, December 1, 2011**

Event: Presentation by AEG President Jennifer Bauer

Topic: North Carolina Geological Survey Landslide Hazard Mapping Program – What We Learned and How You Can Use It

Location: Mitchell Hall, University of North Carolina at Chapel Hill, 4:00-5:00 PM

**Date: Friday, December 2, 2011**

Event: Presentation by AEG President Jennifer Bauer

Topic: North Carolina Geological Survey Landslide Hazard Mapping Program – What We Learned and How You Can Use It

Location: Room 1216, Jordan Hall, North Carolina State University, 10:15-11:05 AM

**Date: Tuesday, December 6, 2011 (meetings are held monthly on the first Tuesday of the month)**

Event: Engineers Without Borders monthly meeting, Research Triangle Park Professional Chapter

Location: 6:30-8:00 PM at the offices of Camp Dresser & McKee; 5400 Glenwood Avenue; Raleigh

Contact: Bill Buckner, Chapter President, [wbuckner@nc.rr.com](mailto:wbuckner@nc.rr.com)

(Continued on page 33)

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(CALENDAR—Continued from page 32)

**Date: Thursday, December 8, 2011**

Event: Ground Water Professionals of North Carolina Winter Meeting

Location: 6:00 PM social, 6:45 dinner, 7:30 presentation at The Backyard Bistro, Raleigh

Speaker: Bob Border, PhD, Professor of Civil and Environmental Engineering, NCSU

Topic: pH and Aquifer Remediation

Details: [jaschiff75@gmail.com](mailto:jaschiff75@gmail.com)

**Date: Thursday, December 15, 2011 (meetings are held monthly on the third Thursday of the month)**

Event: South Carolina Association of Environmental Professionals monthly meeting

Location: 6:30 PM social, 7:00 presentation at Edens & Avant, 1221 Main Street; Columbia, North Carolina

Details: Craig Dukes, GEL Engineering, [craig.dukes@gel.com](mailto:craig.dukes@gel.com)

**Date: March 6-7, 2012**

Event: First Announcement! Third Biennial Southeastern *In Situ* Soil and Groundwater Remediation Conference (*Flyer pp. 14 & 15*)

Location: Renaissance Hotel, North Hills, Raleigh, North Carolina

More Details to come from Redox Tech, LLC; Cary, NC; (919) 678-0140

**Date: March 31-April 2, 2012**

Event: Geological Society of America Southeastern Section Annual Meeting

Location: Asheville, North Carolina

**Date: November 4-7, 2012**

Event: Geological Society of America Annual Meeting

Location: Charlotte, North Carolina

**Date: September 15-23, 2012**

Event: AEG Annual Meeting

Location: Hilton Hotel, Salt Lake City, Utah



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## Student and New Graduate Member Application

Let the Association of Environmental & Engineering Geologists (AEG) show you the great benefits to being a part of the geology profession! **AEG is geology in practice.** Join us and see why our members LOVE their jobs!

### Benefits of Student Membership Include:

- Eligibility for **Scholarships** that provide funding for field camp, field studies, academic studies and travel to present at national meetings.
- Discounts** for attending AEG's Annual and local Section Meetings, field trips, and short courses (sometimes you can attend for **FREE**).
- Networking** opportunities to potentially **meet YOUR future employer!** One member noted, "Every job I have had was a result of shaking hands at an AEG event!"
- Free online access** to *Environmental & Engineering Geoscience*, co-published with the Geological Society of America, *AEG NEWS*, and *AEG's Annual Meeting Program with Abstracts*.
- STUDENT MEMBERSHIP IS FREE!**
- PLUS**, as AEG's gift to you for graduating, your first year of Professional Membership is **FREE!**



### Application Form

NAME: \_\_\_\_\_

Preferred Address: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Phone: \_\_\_\_\_

E-mail: \_\_\_\_\_

Please check one: ☐ Student ☐ New Graduate

Submission: Send this form to:  
 Association of Environmental & Engineering Geologists,  
 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)



## MEMBER BENEFITS

Networking, with colleagues at meetings, through technical publications and on the AEG web page, is a valuable professional development benefit because it allows a member to:

- Broaden and update technical, practical and business knowledge.
- Keep career paths open by assuring that the value, utility and scope of engineering geology is recognized in the scientific, technical, legal, and regulatory arenas.
- Explore numerous opportunities for career enhancement through contacts at technical meetings and in continuing education programs.
- Influence the profession of environmental and engineering geology as it serves society and as it is regulated.
- Establish the standards of the profession.

\*\*\*\*\*

AEG members receive our quarterly professional journal, *Environmental and Engineering Geoscience* and six issues of the *AEG NEWS* as a regular dues benefit.

Members also enjoy a 20% "member discount" on all special publications, registration fees at meetings, short courses and field trips.

IF YOU HAVEN'T RENEWED YOUR MEMBERSHIP, PLEASE DO IT NOW. WE NEED YOU! [WWW.AEGWEB.ORG](http://WWW.AEGWEB.ORG) FOR ONLINE APPLICATION.

## PROFESSIONAL DEVELOPMENT

*AEG -- Serving Professionals in Environmental, Ground-Water and Engineering Geology since 1957*

- AEG sponsors workshops and short courses for which official Continuing Education Units are offered.
- AEG encourages its members to participate in activities of mutual interest with other societies and organizations.
- The annual Richard H. Jahns Distinguished Lecturer in Engineering Geology is co-sponsored by AEG and the GSA Engineering Geology Division.
- AEG members make presentations and lead field trips for students at all levels.
- AEG's Technical and Professional Practice Committees keep the Association in a position of influence through their wide-ranging activities.
- AEG's 25 Sections and 20 Student Chapters provide educational and networking opportunities for members through regular meetings, field trips and local newsletters.
- Students compete for scholarships and awards, and interact with practicing professionals.
- Short courses, field trips, and technical sessions provide opportunities for AEG members to enhance their professional practice.
- International members are found in more than 20 countries and Designated Correspondents enhance technology transfer among more than a dozen countries.

## MEMBERSHIP APPLICATION

## ASSOCIATION OF ENVIRONMENTAL &amp; ENGINEERING GEOLOGISTS



The Association of Environmental & Engineering Geologists (AEG) is an international, non-profit scientific and technical society, whose 3,000 members include geologists specializing in engineering geology, environmental geology, and ground-water geology as well as other professionals in affiliated fields such as civil and mining engineering, land-use planning, public policy and education.

Through its technical and professional activities, AEG strives to promote the value and importance of geologic practice in:

- detecting, containing, and remediating contaminated soil and ground water;
- recognizing and mitigating hazardous geologic processes to promote public safety and welfare; and
- siting, planning, designing, constructing, and maintaining engineered works.

Check Us Out  
[www.aegweb.org](http://www.aegweb.org)

## MEMBERSHIP REQUIREMENTS

**MEMBER:** Applicants for Member Class 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 an applicant shall be practicing in the field of Engineering Geology, Environmental Geology or Hydrogeology. Annual Dues for new (first-time) Members = \$75.00 per year for the first year of membership. Otherwise Annual Dues = \$115.00. Applicants who qualify for Member Class, but are engaged in full-time teaching at the Primary, Secondary or post-secondary level are eligible for Teacher Status (Annual Dues = \$35.00).

**AFFILIATE:** Applicants for Affiliate Member Class shall be scientists or engineers who work with engineering geologists; teachers engaged in middle-school and high school Earth Science education; or persons interested in engineering geology. Annual Dues = \$75.00 (Teacher Dues = \$35.00).

**STUDENT:** 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. Annual Dues = FREE.

**INTERNATIONAL:** Applicants shall hold the same requirements as for Member Class, but may select from the following dues schedule: \$35, which includes the *Environmental and Engineering Geology Journal*; \$45 with the Journal, the Annual Directory and the Annual Meeting Abstracts; or \$55 with the Journal, Annual Directory, Annual Meeting Abstracts and the *AEG News*.

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

PREFERRED ADDRESS: \_\_\_\_\_

WORK PHONE: \_\_\_\_\_ FAX: \_\_\_\_\_

PREFERRED E-MAIL: \_\_\_\_\_

Second Address: \_\_\_\_\_

Home Phone: \_\_\_\_\_

DESIRED CLASS OF MEMBERSHIP: \_\_\_\_\_ ANNUAL DUES AMOUNT: \_\_\_\_\_

CERTIFICATION: \_\_\_\_\_

(Signature)

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.

☐ Enclosed is my check for the amount of Annual Dues of \$ \_\_\_\_\_

☐ Credit Card Payment Option

☐ Discover ☐ Master Card ☐ Visa Amount of Dues to be charged to my card = \$ \_\_\_\_\_

Card Number: \_\_\_\_\_ Expiration Date: \_\_\_\_\_

**SUBMISSION:** Send this form with your check or credit card authorization to:  
Association of Environmental & Engineering Geologists, PO Box 460518, Denver, CO 80246  
Phone: 303-737-2926; FAX: 303-737-2969; AEG Web: [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.

### Silver Sponsor (\$250):

GeoNews Newsletter: Business card size ad (2" high x 3-1/2" wide), four times per year.

Meetings: Listing on a Sponsor Poster, located at sign-in table. Verbal acknowledgement by name in Chairman's introductory comments.

Meeting Exhibits: Space for tabletop display at one meeting. Cost of meeting waived for one person on the exhibit date.

Email Announcements: Listing of your company name on each AEG Carolinas Section email announcement (our email list is currently over 1,000 people)

Web Page: Acknowledgement on the AEG Carolinas Section Web Page, [www.aegcarolinas.org](http://www.aegcarolinas.org), with a link to your site.

### Gold Sponsor (\$375):

GeoNews Newsletter: Quarter-Page ad (4-1/2" high x 3-1/2" wide), four times per year.

Meetings: Listing on a Sponsor Poster, located at sign in table. Verbal acknowledgement by name in Chairman's introductory comments.

Meeting Exhibits: Space for tabletop display at two meetings. Cost of meeting waived for one person on the exhibit date.

Email Announcements: Listing of your company name on each AEG Carolinas Section email announcement (our email list is currently over 1,000 people)

Web Page: Acknowledgement on the AEG Carolinas Section Web Page, [www.aegcarolinas.org](http://www.aegcarolinas.org), with a link to your site.

### Platinum Sponsor (\$500):

GeoNews Newsletter: Half-page ad (4-1/2" high x 7" wide), four times per year.

Meetings: Listing on a Sponsor Poster, located at sign in table. Verbal acknowledgement by name in Chairman's introductory comments.

Meeting Exhibit: Space for tabletop display at three meetings. Cost of meeting waived for one person on the exhibit date.

Email Announcements: Listing of your company name on each AEG - Carolinas Section email announcement (our email list is currently over 1,000 people)

Web Page: Acknowledgement on the AEG Carolinas Section Web Page, [www.aegcarolinas.org](http://www.aegcarolinas.org), with a link to your site.

### Platinum PLUS Sponsor (\$600):

Same as Platinum, but with a FULL PAGE ad in GeoNews. Limited to 2 Sponsors per year.

### GeoNews Newsletter Sponsorship Only

Businesses or individuals can also advertise in GeoNews without being a full sponsor. The annual rates for advertising in GeoNews are as follows:

Business Card	\$ 40.00
Quarter Page	\$ 60.00
Half Page	\$ 100.00
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:

- \_\_\_\_\_ Platinum PLUS Section Sponsorship, \$600/year  
 \_\_\_\_\_ Platinum Section Sponsorship, \$500/year  
 \_\_\_\_\_ Gold Section Sponsorship, \$375/year  
 \_\_\_\_\_ Silver Section Sponsorship, \$250/year  
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Name: \_\_\_\_\_

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City, State, Zip: \_\_\_\_\_

Phone: \_\_\_\_\_ Fax: \_\_\_\_\_

Contact Person: \_\_\_\_\_

Cell: \_\_\_\_\_

Email: \_\_\_\_\_

Website URL: \_\_\_\_\_

Date of Payment: \_\_\_\_\_

Something about your company (use back of page for more room) \_\_\_\_\_

Please enclose a business card or email ad in jpg, pdf, or doc to Jane Gill-Shaler at [janehgill@aol.com](mailto:janehgill@aol.com).

### MAKE CHECK OUT TO AEG CAROLINAS

Snail mail form and payment to:

Jane Gill-Shaler, AEG Carolinas Newsletter Editor  
 1636 West Lexington Ave., High Point, NC 27262

OR SPONSOR ONLINE AT [WWW.AEGWEB.ORG](http://WWW.AEGWEB.ORG)!



## Thank You, AEG Carolinas Sponsors!!

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**Geobrug North America**, Frank Amend, 257-937-2552, [frank.amend@geobrug.com](mailto:frank.amend@geobrug.com), [www.geobrug.com](http://www.geobrug.com); Geobrug North America is a premier supplier of engineered rock-fall protection and slope stabilization systems. Our wirework-based, unobtrusive, and ecology-friendly systems blend well with the natural surroundings. Well-proven anti-corrosion processes permit achieving a useful life up to 100 years and our installed systems require virtually no maintenance.

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