

GeoNews

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

2009, 2011, 2013, 2016, and 2017 AEG Chapter of the Year

WINTER 2021



IN THIS ISSUE

**ASTM E1527-21: The New
Environmental Site Assessment
Standard Practice Update 12**

**Visiting Professionals
Opportunities.....14**

SAVE THE DATES

**NC Winter Meeting
US National Whitewater Center
Charlotte, NC
January 27, 2022**

**SC Winter Meeting
Holy City Brewing
North Charleston, SC
February 17, 2022**

GEONEWS WINTER 2021**Issue Date: December 31, 2021****TABLE OF CONTENTS****Articles and Reports**

ASTM E1527-21 Phase 1 Environmental Site Assessment Standard Practice	
Update <i>by Adam Phillips</i>	12
Visiting Professionals Opportunities	
<i>by Brad Worley</i>	14

Columns and Regular Features

Message from the Vice Chair <i>by Jennifer Thomas</i>	3
Carolinas Chapter Scholarships <i>by Paul Weaver</i>	16

Board Business

4 QT 2021 Treasurer's Report <i>by Walt Plekan</i>	5
11-9-21 Meeting Minutes <i>by Jonathan Gerst</i>	17

Forms and Flyers

Charlotte Dinner Meeting	7
Charleston Dinner Meeting	10
Calendar of Events	21
AEG Membership Application	23
Sponsor Application.....	24

Thanks to our Sponsors!

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

Deadlines for submittal to AE 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 Sept 1, issue date Sept 21

Winter—deadline Dec 1, issue date Dec 21

Deadlines for submittal for the National AEG News:

March issue—January 15

June issue—April 15

September issue—July 15

December issue—October 15

AEG Carolinas Chapter**Current Officers and Contacts**

Chair	Jacob Hundl, P.G. Jacob.hundl@colliersengineering.com
Vice Chair	Jennifer B. Thomas, P.G. jen@jennotecllc.com
Treasurer	Walt Plekan, P.G. Walt.plekan@aecom.com
Secretary	Jonathan Gerst jgerst@peakhydrogeologic.com
Membership Chair	Rebecca Deal RDeal@harthickman.com
Student Liaison	Brad Worley, P.G. Brad.worley@summitde.net
Social Media Chair	Adam Phillips aphillips@erisinfo.com
Social Committee Chair	Adam Phillips aphillips@erisinfo.com
Field Trip Chair	Rick Kolb, P.G. Rick.kolb1@gmail.com
Chapter Sponsor Chair	Eric Cross, P.G. eric@pyramidenvironmental.com
GeoNews Editor	Adam Phillips aphillips@erisinfo.com
Advisor	Jennifer Bauer, P.G. jennbbauer@gmail.com
Advisor	Gary Rogers, P.G. grogers@schnabel-eng.com
Advisor	Paul Weaver, P.G. pweaver@espassociates.com
Past Chair	Susan Averitt, P.G. Susan.averitt@gmail.com
Regional Director	Bruce Rogers, P.G. appgeoky@gmail.com
AEG Carolinas Chapter Website	www.aegcarolinas.org
AEG National Website	www.aegweb.org

Cover: Damage from the August 9, 2020 Mw 5.1 Sparta earthquake Alleghany County, NC

Disclaimer: © 2018 Association of Environmental & Engineering Geologists—All Rights Reserved. Views expressed in this publication are not necessarily those officially representing the Association of Environmental & Engineering Geologists except where expressly stated.

Message From the Vice Chair

By Jennifer B. Thomas, P.G., Carolinas Chapter Vice Chair

Greetings Carolinas Chapter!

The end of the year still finds humanity battling the pandemic. The good news is that vaccines and medicines can lessen its impact and allow us to gather safely for meetings and activities. I attended the October Greensboro meeting and a brewery social in Asheville and it was wonderful seeing many of your faces again and some new ones as well.

AEG is planning for an active 2022 with plenty of opportunities for networking, socializing and continuing education. I plan on seeing everyone at the Charlotte meeting this January. This meeting includes an option to come early and enjoy some outdoor activities at the Whitewater Center. A meeting in Charleston is also coming up the following month. As the weather warms into spring we are rescheduling the Raleigh-area field trip that was postponed from fall to March 26, 2022. We'll meet at a venue with outdoor

space in Greenville, SC in April. We'll also announce more meetings and a potential western NC field trip. Stay tuned for when we announce dates.

I am still seeing high demand for geoscience services and will be hitting the ground running after a Christmas vacation. Indications are that 2022 will be a prosperous year for our industry, or at least the beginning of the year.

A reminder for students that the deadline to apply for the \$3,500 Carolinas Scholarship is February 1, 2022. The money was not awarded this past year due to lack of applicants; odds are good you will win this scholarship if you meet the qualifications.

If you are a driller, lab, field supply provider, or other vendor, sponsorship is a great way to keep your name in front of geoscience professionals who need your services. We appreciate the support of our sponsors, which helps provide free dinner meetings to students and offset some of the costs of meetings. Please contact Eric Cross (eric@pyramidenvironmental.com) to renew your sponsorship for next year or become a new sponsor.

Thank you to those who have volunteered to fill roles helping our chapter this coming year. Your names will be listed in this newsletter.

As always, your board and I look forward to hearing from each of you regarding your suggestions and/or concerns related to our Chapter. We are here to serve the needs of our membership, so your feedback is vital and welcome.

Jennifer Thomas, P.G.

jen@jennetcllc.com

AEG Carolinas Chapter Vice-Chair



PYRAMID GEOPHYSICS

P: (336) 335-3174
503 Industrial Avenue
Greensboro, NC 27406

eric@pyramidenvironmental.com

PyramidGeophysics.com

For almost 30 years, Pyramid Geophysics has been providing cost-effective and non-invasive near-surface geophysics services to a wide range of industries throughout the United States.

**How Can We
Help Solve Your
Problems?**

**ELECTROMAGNETICS
ELECTRICAL RESISTIVITY
GROUND PENETRATING RADAR**

SEISMIC SERVICES

Water Resources
Private Utility Locating
Underground Storage Tanks
Landfill Geophysics
Geotechnical Geophysics
Geologic Hazards
Geologic Mapping



Doug Canavello, P.G., M.B.A.

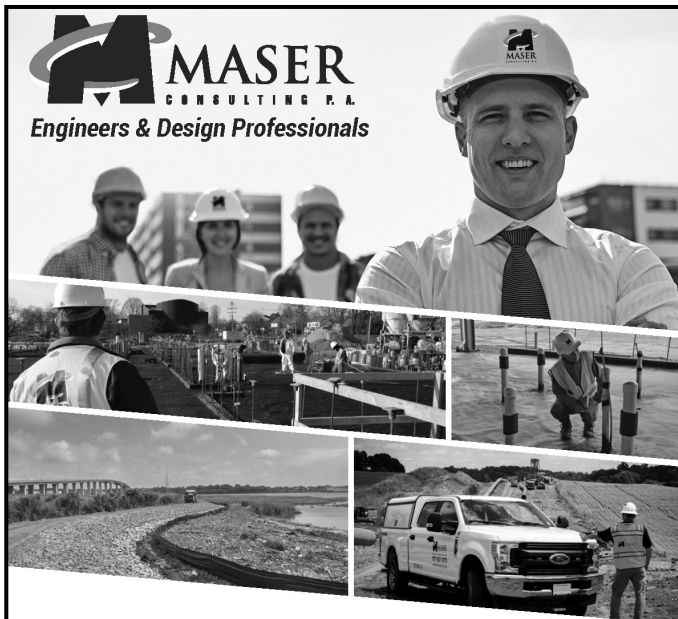


Eric Cross, P.G.



Carolinas Chapter Brewpub Socials

The Carolinas Chapter has continued growing the tradition of Brewpub Socials. Since hosting our first post-COVID social in October in Raleigh, we have also hosted events in Charlotte in November at 4001 Brewers at Yancey, and in Asheville in December at White Labs Tap & Kitchen. The turnout has been great, thanks to those of you who have attended. We will continue scheduling Brewpub Socials during months there isn't a chapter meeting. Keep an eye out for email announcements about those, along with LinkedIn posts and on our website, www.aegcarolinas.org.



Proud to support the
AEG Carolinas Chapter

Customer Loyalty
through Client Satisfaction

877.627.3772
www.maserconsulting.com

Matthew Cawley
Business Development Manager

Mobile: 843.300.9361
mcawley@enviromart.us

 **enviromart**
rethink your environment.

SAEDACCO

Innovative Solutions:
Groundwater Interval Profile
Sampling Using Roto Sonic Drilling

SAEDACCO is using its Roto-Sonic drill to conduct Groundwater Interval Profile Sampling. This in-situ sampling system is used in sedimentary aquifers with a two inch stainless steel screen, inflatable packer and a Grundfos Redi-Flo pump to collect discrete formation samples at a rapid pace during the drilling process. This system assists the client in determining the vertical extent of contamination in aquifers without having to install multiple monitoring wells. Cost savings, innovative ideas! Let us know how we can help you on your next project.



SAEDACCO, Inc.
9088 Northfield Dr. Fort Mill, SC 29707
800.849.0353 / www.saedacco.com

Your one source for DPT, roto sonic,
conventional drilling, injection and
remediation services.

AEG Carolinas Chapter Updated 1Q 2020 Treasurer's Report

By Walt Plekan, P.G., Carolinas Chapter Treasurer



AEG Carolinas Section 4Q 2021 Treasurer's Report

BALANCE As Of October 1, 2021

Checking Account	\$ 2,110.31
Savings Account	\$ 23,617.92
	<u>\$25,728.23</u>

INCOME

Meetings	\$479.00
----------	----------

Misc

Interest

Interest from savings	0.39
-----------------------	------

SUBTOTAL - INCOME	\$479.39
--------------------------	-----------------

EXPENSES

Fees	Paypal fees	\$3.08
------	-------------	--------

Meeting Expenses

October Meeting Final Payment	\$728.84
January Meeting Deposit	\$1,676.87

Additional Expenses

Mail Chimp -email service	\$62.97
Web Domain	\$55.48

SUBTOTAL - EXPENSES	\$2,527.24
----------------------------	-------------------

BALANCE As Of December 20, 2021

Checking Account	\$ 3,062.07
Savings Account	\$ 20,618.31
TOTAL	<u>\$23,680.38</u>



Your TOTAL Laboratory Resource

We are an industry leading sampling and analytical testing company with **40 years of experience.**

We have the capacity, resources, and efficiency to ensure **the best results for your projects.**

Environmental Analytical Services

- Air Emissions/Stack Testing
- Drinking Water
- Groundwater Monitoring
- Hazardous Waste
- Toxicity Reduction
- Ecological Risk Assessments
- Non-routine Testing



**Contact me to see
how Pace can help!**

Korey S. Drew

Senior Account Executive
Pace Analytical Services, LLC.
704.315.8068



Carolinas Chapter Dinner/Meeting

*The Carolinas Chapter of the
Association of Environmental & Engineering Geologists presents*

Guest Speaker:

Rick Wooten, P.G. (Jahns Engineering Geology Lecture Series Presentation)



Presentation:

***Going Against the Grain: Linking Brittle Cross-Structures
with Landslides, Hydrogeology, and Earthquakes in the North
Carolina Blue Ridge and Piedmont***

Dinner and Talk: 5:30-9:00 PM

Thursday, January 27, 2022

Room C of the Whitewater Center in Charlotte, NC

AEG Carolina's Chapter 1/27/22 Charlotte Whitewater Center Meeting

Description: Good day AEG Carolinas members! Please mark your calendars and plan to attend what will certainly be an informative, entertaining, and even adventurous experience. We all desperately need to reconnect in-person, and what better place than the Charlotte Whitewater Center. Plan to arrive early with your ice skates, mountain bike or climbing shoes and a co-worker/colleague to enjoy a little exercise and *GEO-CAMRADERIE*! So far, there's a mountain biking trip planned to meet in the SE corner of the parking lot (<https://whitewater.org/plan-your-visit/facility-map/>) at 2PM (ride starts at 2:30).

Place: Charlotte Whitewater Center

Address: Room C, 5000 Whitewater Center Pkwy, Charlotte, NC 28214

Date: Thursday, January 27, 2022

Time: 5:30 PM socializing begins, 7:00 buffet dinner, 8:00 Rick's talk

Food: Cookout Style Meal and possibly 1-2 beer (pending sponsorships). To Sponsor the meeting and/or to reserve your vegetarian meal option, email communications@aegcarolinas.org

Cost: AEG members \$35; non-members \$50; public-sector employees and teachers \$25, students free w/ college ID

The Whitewater Center charges \$6 for parking, but this provides access to all the hiking/biking trails. Climbing, ice-skating, challenge courses are extra. <https://whitewater.org/things-to-do/activities/>

RSVP/Questions: communications@aegcarolinas.org or contact your AEG Carolinas board members (<http://aegcarolinas.org/contact-us/>)

Meeting Sponsors/Volunteers: TBD. Please contact communications@aegcarolinas.org

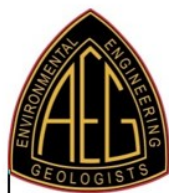
Rick's Abstract

Geologic studies from the 1990's to present have identified brittle, post-orogenic bedrock structures that cut across the overall SW-NE structural and topographic pattern of the Blue Ridge and Piedmont of North Carolina. These families of brittle faults and associated fracture (joint) systems overprint older ductile structures, and correspond with ESE-WNW, WSW-ENE, and E-W topographic lineaments. Detailed geologic investigations indicate that some of these cross-structures can be linked to landslide occurrence, the hydrogeology of fractured rocks, and seismicity. Landslide hazard mapping in the Blue Ridge of Watauga County in 2008 identified an ESE-WNW trending zone of rock slope instability associated with brittle faulting that overprints a segment Linville Falls fault, a ductile thrust fault bounding the Grandfather Mountain window. Subsequent investigations identified this zone of brittle deformation as the Boone fault, located in an area that experienced 2013-14 seismicity. Topographic lineaments that parallel the Boone fault project into the Deep Gap reentrant on the Blue Ridge Escarpment (BRE) where the remnants of an August 1940 tropical cyclone triggered over 600 landslides. Recently completed landslide hazard mapping in Polk County identified an E-W trending fracture set that controls the North Pacolet River reentrant into the BRE, an area of concentrated landslide activity from a May 18, 2018 storm that triggered over 240 landslides. Investigations in 2010 for the CTS superfund site in the Blue Ridge near Asheville identified the ESE-WNW trending Mills Gap fault and fracture zone that cross-cuts metasedimentary and meta-igneous rocks of the Ashe

Metamorphic Suite. Detailed geologic and hydrogeologic studies identified the Mills Gap fault zone as primary structural feature that provides a pathway for groundwater flow to transmit contaminants. A strand of the Mills Gap fault juxtaposes weathered bedrock with deformed colluvial deposits indicating Cenozoic movement along the fault, which is in the epicentral area of the 1916 M5.2 Skyland earthquake. A series of ESE-WNW trending topographic lineaments extends through the Mills Gap fault zone into the Hickory Nut Gorge reentrant on the BRE, a location of concentrated landslide activity in Rutherford County. Anecdotal reports of rockfalls during an 1848-1874 earthquake swarm hint at the possibility of a link between seismicity and rock slope failures in Hickory Nut Gorge.

Rick's Bio

Rick has over 40 years of experience in applied geology in the Cascade Mountains of Washington State, and applied geologic research in the Piedmont, and Blue Ridge Mountains of North Carolina. He earned his B.S. and M.S. degrees in geology at the University of Georgia in 1973 and 1980. Rick recently retired from the North Carolina Geological Survey where he was the Senior Geologist for Geohazards and Engineering Geology from 1990 to 2021. His previous work includes mapping geologic resources and conditions for land-use planning, landslide investigations and applied geotechnical geology for the USDA-Forest Service on the Gifford Pinchot National Forest in Washington State from 1980 to 1990. His work with the North Carolina Geological Survey includes the scientific regulatory review and field investigations for a low-level radioactive waste disposal project, and bedrock geologic mapping in the Piedmont and Blue Ridge Mountains. Since 2003 his main focus has been on landslide hazard mapping and research, and responding to landslide events North Carolina Blue Ridge. He has a special interest in the relationships of ductile and brittle bedrock structures with geomorphology and landslides processes, and communicating landslide hazards information with stakeholders.



Dinner Meeting

The Carolinas Chapter of the Association of Environmental & Engineering Geologists

Guest Speaker:



Rick M. Wooten, P.G.

AEG Richard H. Jahns Lecturer

Senior Geologist for Geohazards and Engineering Geology at N.C. Geological Survey (retired)

RICHARD H. JAHNS LECTURE SERIES PRESENTATION:

**“2018-2020: TWO YEARS, EIGHT STORMS, 320+ LANDSLIDES, AND AN EARTHQUAKE
(WHAT DOES IT MEAN, AND WHAT DO WE DO NOW?)”**

MEETING DETAILS

Place: Holy City Brewing, 1021 Aragon Ave, North Charleston, SC 29405

Date: Thursday, February 17, 2022

Time: 5:30 PM Social Hour
7:00 PM Buffet Dinner
8:00 PM Presentation

Cost: AEG and ASCE Members \$30
Non-members \$40
Students **free** with college ID

Reservations: Please make reservations with Rich Anthony by 6:00 PM on Thursday,
February 10, 2022 by email: RichDAnthony@gmail.com

Presentation Synopsis

Rick's presentation (previously presented at the AEG 2021 national meeting) will highlight topics he will cover during in his Jahns' lecture series. These themes include interconnecting geoscience, weather patterns, and history in landslide hazard studies; using drones and lidar in emergency landslide responses and hazard mapping; building multi-disciplinary partnerships in applied geology and research; and, communicating with stakeholders about landslide hazards.

He will explore these topics in the context of the North Carolina Geological Survey's (NCGS) landslide response and landslide mapping efforts between 2018 and 2020. A two-year period of record above-normal rainfall that began in 2018 and continued into 2020 resulted in a steady increase in landslide activity over the preceding four years throughout the Blue Ridge Mountains of western North Carolina. Eight extreme rainfall events related to low pressure systems, convective storms, and tropical cyclones triggered over 320 debris flows and debris slides, and cumulative rainfall over this period contributed to the reactivation of large, slow-moving landslides that continue to threaten property and regional infrastructure. This interval of increased landslide activity began abruptly on May 18, 2018, when an orographically enhanced, convective storm along the Blue Ridge Escarpment triggered at least 240 debris flows and debris slides that resulted in a fatality, destroyed homes, and severely damaged infrastructure. Shortly after this event, the N.C. General Assembly reinstated funding for the NCGS landslide hazards program. During the course of rebuilding this program and concurrent countywide landslide mapping the NCGS responded to an additional 80 recent landslides. Notable among these was the August 24, 2019 convective storm in the Nantahala River Gorge that triggered at least 32 debris flows and debris slides, many originating in areas burned by the Ferebee wildfire during the record drought of 2016. This event caused more than \$1M in damages with adverse impacts to local, state and federal agencies, and to the local economy. Data on these and over 5,000 other landslides are now publicly available via a suite of online tools to examine landslide hazards in North Carolina.

The August 9, 2020 Mw 5.1 earthquake near Sparta, North Carolina caused over \$15M in damages to buildings and other infrastructure. Ongoing collaborative investigations identified the first modern fault rupture directly attributed to recent seismicity in the Southeastern U.S. Ground surface ruptures along the newly discovered, ESE-trending Little River Fault parallel other linear topographic features crossing the southern Blue Ridge in locations linked to frequent landslide activity.

The confluence of new technology, the passage of National Landslide Preparedness Act and the ongoing impacts of extreme weather patterns linked to climate change present a compelling opportunity for the geoscience community to press forward in a coordinated effort to reduce losses from landslides. An essential part of meeting this challenge is building partnerships within and outside of the scientific community to increase public awareness of geologic hazards.

ASTM E1527-21 Phase 1 Environmental Site Assessment Standard Practice Update..... *by Adam Phillips*

In the environmental geology profession, one of the most common tasks we're hired to perform is a Phase 1 Environmental Site Assessment (ESA). A Phase 1 report is required on nearly all commercial real estate transactions. Back in the early 1980s after CERCLA was passed, there was inconsistency and misperception in the practice of conducting ESAs in order to avoid potentially onerous CERCLA liability of cleanup costs. The need arose for an industry standard. In 1993, the ASTM E1527 standard practice was created. Every 8 years, it is revisited and updated. Environmental Professionals (EPs) have become accustomed to the 2013 standard practice (ASTM E1527-13). In November 2021, the newly updated ASTM E1527-21 Phase 1 standard practice was published.

The most significant changes include the following:

- **Historical Records Review** - The new standard requires that EPs review the "big 4" historical research items: aerial photographs, topographic maps, city directories, and fire insurance maps. This is required for the subject property, and adjoining properties. If the property use is industrial, manufacturing, or retail (new requirement, driven by drycleaners typically being in retail settings), it is also required to review building department records, property tax records, and zoning records. The new E1527-21 Standard requires that additional ASTM Standard Historical Sources shall be reviewed if they are "reasonably ascertainable" and likely to be useful in determining whether activities on these properties may
- have resulted in a release or impact on the subject property.
- **New and Clarified Definitions** - New definitions of "Recognized Environmental Condition" (REC), Controlled RECs (CRECs), and Historical RECs (HRECs). The new standard contains an Appendix to aid EPs in defining these terms, including hypothetical examples and a logic diagram. There are new definitions that help clarify the terms "Property Use Limitation" and "Significant data gap".
- **Emerging Contaminants** - Guidance is provided on how to address emerging contaminants such as PFAS. Until EPA deems these "hazardous substances" under CERCLA, PFAS are not considered a REC. The new standard includes PFAS as "non-scope consideration" that should be evaluated as a business risk if the user of the report requests it. However, when conducting Phase 1 ESAs in states that have already adopted regulatory standards for emerging contaminants (such as PFAS), it is particularly important.
- **Reporting Requirements** - Consistent use of the term "Subject Property" is now required when referencing the site being assessed in reports. Maps and photographs : the prior ASTM E1527-13 standard did not explicitly state that these items be included. The new E1527-21 standard makes it clear that photographs and a subject property map illustrating the boundaries of the subject property need to be included in all Phase I ESAs. The photographs should include major site features and locations on the subject property that are considered RECs, and also de minimis condi-

ASTM E1527-21 (continued)

By Adam Phillips

- conditions.

Report Expiration (Shelf Life) - Phase I ESAs must be completed no more than 180 days prior to the date of acquisition for the report to remain viable for up to one year, if five specific components of the report have been updated (interviews, searches for recorded environmental liens, review of government records, site reconnaissance of the subject property and EP Declaration). It also requires the dates in which each of the components were completed, and that the 180 day, or 1-year time period begins with the date upon which the first of these components was completed.

It will likely take up to one year for EPA to approve and adopt ASTM E1527-21 as a requirement of federal All Appropriate Inquiries (AAI) regulations.

Until then, EPs can continue using the ASTM E1527-13 standard practice, perform a hybrid-style incorporating parts of the ASTM E1527-21 standard while citing the ASTM E1527-13 standard, or use and cite the new standard now.

DOMINION BOULEVARD IMPROVEMENTS, VA
2018 ACEC Virginia EEA Grand Award Winner



Integrated dam, geotechnical, and tunnel engineering solutions ranging from subsurface explorations and soil testing to project risk management, engineering analysis, design, and construction support.

schnabel-eng.com



Schnabel
ENGINEERING

Build Better. Together.

Visiting Professionals Opportunities

By Brad Worley, P.G., Carolinas Chapter Student Liaison

We are gearing up for the 2022 VP talks, and are already scheduled with several universities. The challenges of 2020 and 2021 have kept us from conducting our AEG VP visits, as we had pre-Covid, but I really feel these visits are good for students. Just as a reminder/refresher, the AEG VP program brings practicing geologist into geology/geoscience departments to talk to students about what we do for a living and how we have used our degrees to build a career. Through the years, we have had a lot of very positive feedback on the impact of the AEG VP program. Students often tell us that we were the only lectures/talks that centered on local/regional careers in the geosciences. The program really helps students see potential avenues for employment and can actually be very beneficial to those practicing professionals who participate in the talks. I actually have three current employees, with me here at Summit Design and Engineering Services, that learned of engineering geology during one of my AEG VP visits at their school.

This is where you, the members of the AEG Carolinas Chapter, can really help out. We are looking for volunteers to speak at the AEG Visiting Professionals talks, at the college/universities close to where you live and work. We typically take one engineering geologist and one environmental geologist to each VP talk. Speakers are asked to deliver a 20-25 minute presentation on how they chose to major in the geosciences, how they found their job/jobs, how their degrees have helped them in their careers, and most importantly, how we can provide prospective on the job market and possible careers as the students approach graduation. We try to keep the presentations somewhat informal. Some speakers choose to use a PowerPoint presentation, some just speak without presentation. Some presentations highlight a local project/projects, some presentations highlight interesting projects throughout the speaker's career. The key is to show current geoscience students that there is "light at the end of the tunnel" and that there are good careers out there.

If you are interested in helping out with the AEG VP in your area, please email me (brad.worley@summitde.com) and let me know where you live, where you work (engineering geology/environmental geology), and what university/college you are close to. Typically the talks are later in the afternoon, after the day's classes have ended. AEG Carolinas normally provides a pizza dinner during the talks.

I hope to hear from some of you and get you in the list of potential speakers!



Enviro-Equipment, Inc.

"When it has to work"

1-888-274-8929

www.enviroequipment.com

WE BUILD THESE...

Our Instrument Division Includes:

- Rental instruments and accessories
- Instruments for purchase
- Instrument repair
- Field sampling supplies
- Personal Protective Equipment (PPE) supplies
- Equipment Training

Our Remediation Division Includes:

- Soil and groundwater remediation equipment
- Remediation rental equipment
- New and used remediation systems for sale
- Pilot testing equipment and support
- Remediation components and parts for sale
- Custom electrical control panels
- Field installation and startup service
- Field repair of remediation systems
- Bulk carbon sales and change-out services
- Carbon injection services



WE RENT THESE...



**...AND SO
MUCH
MORE!**

Call or visit our website today!

EEI is a North Carolina certified "Woman-Owned Business Enterprise" incorporated in January, 1993, and is located at 11180 Downs Road in Pineville, NC 28134. In 2004, EEI opened a 10,000 sqft Remediation System Division at 10120 Industrial Drive in

AEG Carolinas Scholarship Opportunities

By Paul Weaver

In the Spring of 2022, the Carolinas Chapter of AEG will again be awarding an AEG Carolinas Scholarship to a deserving geosciences undergraduate student in North Carolina or South Carolina. Applications for the scholarship may be obtained at <http://www.aegfoundation.org/funds/carolinas.php>. The deadline for submitting the scholarship application is February 1, 2022, but we strongly encourage all interested students to start the application process by October, 2021 so they have time to pull together all the required information for the application prior to the submittal deadline. The amount of the scholarship for 2022 will be **\$3,500**.

The AEG Carolinas Scholarship was established in 2015 with initial seed money in the amount of \$10,000 from the AEG Carolinas Section (now the AEG Carolinas Chapter). The eligibility requirements for the scholarship are as follows:

- Student must be an undergraduate geoscience major enrolled in a school in North or South Carolina.
- Student must be an AEG Student Member.
- Student must provide academic transcripts.
- Student must provide an approximately 500-word essay that describes why they believe they deserve the scholarship and how they will use it (e.g., for tuition, field camp, books, etc.).

The scholarship application must be completed on the AEG Foundation website (www.aegfoundation.org) by February 1 of each year.

For anyone wishing to donate to the scholarship fund, donations can be made at any time on the AEG Foundation website at:

<http://www.aegfoundation.org/pdf/AEGF%20Donation%20Form.pdf>




CLEAN VAPOR LLC
V.O.C. & RADON PLAN DESIGN AND REMEDIATION

Thomas E. Hatton
CEO - PROJECT DIRECTOR

VOICE 908.362.5616 / FAX 908.362.5433 / CELL 973.479.7068
thatton@cleanvapor.com

32 LAMBERT ROAD, PO BOX 688, BLAIRSTOWN, NJ 07825 / cleanvapor.com



Stop Guessing . . . Know What's Down Inside Your Well

**Water well
video,
analysis, and
repair**

**Geophysical
Surveys**

EGIS, PA

Mike L. Vaught, PG, CWC

(919)929-8363
441 Northside Dr.
Chapel Hill, NC 27516
gwinvest@juno.com

Carolina Board Meeting Minutes 11-9-2021 from 5pm to 6pm—Conference Call*By Jonathan Gerst—Carolinas Chapter Secretary*

1. Call to Order : 16:05
2. Roll Call: Jacob Hundl, Jen Thomas, Jonathan Gerst, Adam Phillips, Paul Weaver, Richard Anthony, Rick Kolb
3. Carolinas Chapter Finances - Summary from Walt Plekan
 - a. Review of current chapter finances:
 - Savings: \$22,618.12
 - Checking: \$2,836.40
 - PayPal: \$-
 - Total: \$25,454.52
 - b. Amount from AEG National meeting in 2019: \$5,975



4. Leadership Positions -
 - a. Assistance for Chair
 - b. Identify and prepare future board members
 - i. Adam for Newsletter and Social Media in addition to current role
5. Chapter Meetings
 - a. October 2021 Greensboro – attendance/ numbers – Paul said 22 attendees (inc 5 students)
 - b. January Charlotte – finalize date/#, Gerst reserving, Rick Wooten speaking – 75 people, January 20th targeted
 - c. February Charleston – tentative 2/17, R.W. presentation daytime at CofC, USC 2/18, Rich Anthony in town organizing, additional chapter meeting – venue no deposit required, Holy City Brewing
 - d. April Raleigh – needs to be early April, 14th may be best (stupid finals), Maddie German President presentation, Rick W. will do presentations during day at UNC-CH and NCSU, interest at ECU/UNC-W on Friday and Wake tech – Brad Worley will help Rick .
 - e. Greenville? Summer meeting – R.W. interested in speaking at USC Upstate and maybe Furman, could do Greenville meeting that night? Announcement was to go out when we identified the location.

The top of the block features the Hart Hickman logo, which includes the words "hart" and "hickman" in blue lowercase letters, separated by a green stylized graphic of two overlapping shapes. Below the logo is the tagline "SMARTER ENVIRONMENTAL SOLUTIONS" in green capital letters. The main part of the block is a photograph of a man wearing a blue protective suit, blue gloves, and a yellow hard hat. He is kneeling in a field of dark, loose soil, using a small white container and a tool to take a sample. At the bottom of the image, the text "A trusted partner serving your environmental consulting needs." is written in a white, italicized serif font. Below the image, the website "www.harthickman.com" and phone number "(704) 586-0007" are listed in white.

(Continued on Page 18)

(Continued from Page 12)

6. Carolinas Scholarship – Paul a. Need to send email blast to distribution: Paul to draft email, mention award \$ i. \$3500 this year, Paul talked to Jake at UNC-C, some applications sent to students.
7. GeoNews – Jennifer Thomas (for now) – Adam takes up the mantle
 - a. Needs editor
 - b. Resumed publication
8. Visiting Professionals – Brad For the VP's: I'm sorting through the last batch of emails I sent (pre-covid) to determine who needs to be on my first email out to gauge interest in visits for Spring 2022. I'm hoping more universities are actually open to outside speakers. Some are, some aren't. I'm more than willing to offer Zoom/Teams for the schools that are not doing in-house visits. In-house visits are FAR more personal and allow for more direct student interaction.
9. Social Activities/Media – Adam
 - a. Brewpub social in Charlotte 11/16, triad next year
 - b. Try new cities, maybe monthly bi monthly, need email announcements
 - c. December mid month in Asheville
 - d. Email – Rick K said gmail blocked AEG email blast. Board voted (motion by JH, 2nd by JG, all in favor) to use AEG's Go Daddy domain to add email marketing service to better distribute mass email blasts (to avoid mass emails/spam folders). JH contacted Brad Isles.
 - e. CE opportunities – discuss at CLT meeting, maybe retry Jordan Lake/Raleigh field trip in Spring (25 person limit)
 - f. Rick talked to Bart in Avl with survey for or whenever.



(Continued on Page 19)

Announcements

TERRA NOVA SOLUTIONS ACQUIRES HAZMAT EMERGENCY RESPONSE AND REMEDIATION

Expansion Will Accelerate Growth, Expand Depth of Services in Southeast

ROCHESTER, NEW YORK, November 8, 2021: Terra Nova Solutions, Inc. (“Terra Nova” or the “Company”) a provider of industrial, waste, and environmental services announced today the acquisition of Hazmat Emergency Response and Remediation (“HERR”).

Founded by Marc and Kyle Cox in 2002 and based in Whiteville, North Carolina, HERR is a provider of diversified waste, industrial, remediation and emergency response solutions to a broad array of businesses in the southeastern United States.

“We are very excited to welcome HERR to the Terra Nova family and to further support their outstanding track record of best in class environmental solutions” said Terra Nova Chief Executive Officer Bill Hunter. “We are thoroughly impressed with quality of the HERR team and they strengthen our waste processing, industrial service and remedial service offerings while better positioning us to serve our growing client base in the southeast”.

“The Terra Nova leadership team shares our vision for the next evolution of HERR,” said HERR President Marc Cox. “We are very excited to team up with Terra Nova and move forward, “ said Kyle Cox of HERR.

As part of the transaction, HERR operations in Whiteville and Thomasville, NC join existing Terra Nova’s operations in High Point, NC, Greenville, SC and Rochester, NY. Marc and Kyle Cox will continue to serve in leadership roles with the Company. The transaction is the third acquisition by Terra Nova Solutions.

ABOUT TERRA NOVA SOLUTIONS:

Terra Nova is a vertically integrated provider of industrial, waste, and environmental solutions to the manufacturing, chemical, energy, transportation, and utility industries. For more information, please visit www.tnsolutions.com

CONTACTS:

Terra Nova Solutions, Inc

Bill Hunter, CEO

bhunter@tnsolutions.com

Al King, Sales Manager

(910) 234-3172

al.king@herrteam.com



CCI

P: (910) 484-7000

281 Lane Parkway
Salisbury, NC 28146

3434 Black & Decker
Road
Hope Mills, NC 28346

24-Hour ER Phone
1-888-624-6555

Abatement

Demolition

Emergency Response/Disaster
Response

Contaminated Soil Remediation

Industrial Services

Industrial Blasting

Geoseal Vapor Barrier Installation

“Dedicated to our client’s
success”



TODD ELMORE

EDR SE Atlantic Regional Manager, GA, NC, SC

C / 706.818.3310

telmore@ednet.com

6 Armstrong Road, Shelton, CT 06484

800.352.0050 | ednet.com



Geophysical Services

- Locate abandoned USTs
- Delineate buried waste
- Characterize bedrock fractures
- Map depth to bedrock
- Designate seismic Site Class
- Map subsurface voids
- Locate rebar and PT cables
- Many other applications...

Please contact: Ned Billington, PG, 336-232-5211

geophysics@espassociates.com

www.espassociates.com

ES eastern solutions

ENVIRONMENTAL EQUIPMENT RENTAL & FIELD SUPPORT SERVICES

Eastern Solutions is an environmental rental and field service support company. Our inventory continues to grow with new and updated equipment and supplies. The equipment rental services offers free pick-up and delivery 90 miles from Charlotte (includes but not limited to Greensboro, NC; Greenville, SC; Columbia, SC), whether it's to an office or your job site. If you are outside the 90-mile radius, we offer free ground to and from shipping (equipment is shipped in plastic crates with pre-printed return labels inside). We'd like to thank all of our existing clients for their continued support and welcome any new clients. If you are interested in hearing more about Eastern Solutions, please let us know and we would be more than happy to come out and visit.

Below is a quick breakdown of the exciting things happening at ES:



Added Inventory / Supplies:

Along with several items added to our growing inventory, here is a quick list of those specialty items that have been requested:

- Core Drill w/ water kit
- Hammer Drills
- Diaphragm Pumps
- Air-Sparge System (Pilot Testing)
- SVE System (Pilot Testing)
- Sewer Camera w/Locator
- Downhole Camera w/DVR
- ATV / UTV Rental (Coming in April)
- Sand, Bentonite, and 55-Gallon Drums
- Large Selection of Vapor Points
- Carbon (Vapor/Water)



New Support Services

Based on our client's requests to expand our support services, Eastern Solutions now offers the following (Please note these services are for existing rental clients only):

- Bushhogging and Heavy Clearing (i.e. Forestry Cutter)
- Small Excavations and Trenching
- Silt Fence Installation
- Minor Storm Water Repair
- Downhole Well Camera w/DVR Service
- Sewer Push Camera w/Locator Service
- Field Personnel Support
- AS/SVE System Support and Installation
- Equipment Calibration and Repair Services

**4543 Charlotte Hwy, Suite 8
Lake Wylie, SC 29710**

**Rentals@EasterSolutionsEnv.com
Main Office: 803.746.5180**

CALENDAR OF EVENTS—2022

Geological Events in the Carolinas

Courtesy of AEG Carolinas Chapter—www.aegcarolinas.org. Last updated December 21, 2021

Send updates/corrections to Rick Kolb, rick.kolb1@gmail.com

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

Date: Thursday, January 6, 2022

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

Time: 12:00 noon

Location: Zoom meeting

Details/Registration: register via: meetup.com/EWB-USA-RTP-Chapter/events/cbwwcsydcbbj

Date: Tuesday, January 25, 2022

Event: Webinar - ASTM E-1527-21 Phase I Environmental Site Assessments – Industry Update

Location: GoToMeeting

Cost: Free for AEG members / \$20 for Non-Members
Details: 11:00 AM - 12:00 PM EST

Speaker: Julie Kilgore

The primary standard utilized for conducting All Appropriate Inquiries, or Phase I Environmental Site Assessments, has recently been updated. The ASTM E1527-21 was published in November 2021, and environmental consulting firms across the country are evaluating internal procedures to ensure compliance with meet the new standard. Julie Kilgore, chair of the ASTM E1527 task force, will share insights about industry practices that led to the revisions, and discuss options for implementation while EPA formalizes its reference to E1527-21. Register: Go to www.aegweb.org

Date: Thursday, January 27, 2022

Event: AEG Carolinas Chapter Meeting

Location: U.S. National Whitewater Center, 5000 Whitewater Center Parkway, Charlotte

Cost: \$35 for AEG members, \$50 for non-members, \$25 for public-sector employees and teachers; free for students w/ ID. Parking is \$6 but you will have access to the hiking and biking trails.

Details: 5:30-7:00 socializing, 7:00-8:00 buffet dinner; 8:00-9:00 speaker

Presentation: Jahns Lecturer Rick Wooten, who recently retired from the North Carolina Geological Survey, will present: Going Against the Grain: Linking Brittle Cross-Structures with Landslides, Hydrogeology, and Earthquakes in the North Carolina Blue Ridge and Piedmont. The abstract for his talk and Rick's bio are on the chapter website.

Registration: Go to www.aegcarolinas.org

Date: Thursday, February 3, 2022

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

Time: 12:00 noon

Location: Zoom meeting

Details/Registration: register via: meetup.com/EWB-USA-RTP-Chapter/events/cbwwcsydcbbj

Date: Thursday, February 17, 2022

Event: Jahns Lecture at the College of Charleston

Location: School of Science and Mathematics Building

Cost: Free

Details: 1:30-2:30 PM

Presentation: Jahns Lecturer Rick Wooten, who recently retired from the North Carolina Geological Survey, will present: Going Against the Grain: Linking Brittle Cross-Structures with Landslides, Hydrogeology, and Earthquakes in the North Carolina Blue Ridge and Piedmont. The abstract for his talk and Rick's bio are on the chapter website.

Registration: None required

(Continued on Page 23)

THE ENVIRONMENTAL DUE DILIGENCE POWER SUITE

**ONE-STOP SHOP for
environmental data, research
and digital solutions**



ERIS

Want to learn more? Reach out here: info@erisinfo.com | erisinfo.com/contact

(Continued from Page 16)

Date: Thursday, February 17, 2022

Event: AEG Carolinas Chapter Meeting – OUR FIRST IN CHARLESTON!

Location: Holy City Brewing; 1021 Aragon Avenue; North Charleston, SC

Cost: \$30 for AEG members, \$40 for non-members, \$20 for public-sector employees and teachers; free for students w/ ID.

Details: 5:30-7:00 socializing, 7:00-8:00 buffet dinner; 8:00-9:00 speaker

Presentation: Jahns Lecturer Rick Wooten, who recently retired from the North Carolina Geological Survey, will present: 2018-2020: Two Years, Eight Storms, 320+ landslides, and an Earthquake (What does it mean, and what do we do now?). The abstract for his talk and Rick's bio are on the chapter website.

Registration: Go to www.aegcarolinas.org

Date: Friday, February 18, 2022

Event: Jahns Lecture at the University of South Carolina

Location: Jones 002

Cost: Free

Details: 3:30-4:30 PM

Presentation: Jahns Lecturer Rick Wooten, who recently retired from the North Carolina Geological Survey, will present: *Going Against the Grain: Linking Brittle Cross-Structures with Landslides, Hydrogeology, and Earthquakes in the North Carolina Blue Ridge and Piedmont*. The abstract for his talk and Rick's bio are on the chapter website.

Registration: None required

Date: Thursday, March 3, 2022

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

Time: 12:00 noon

Location: Zoom meeting

Details/Registration: register via: [meetup.com/EWB-USA-RTP-Chapter/events/cbwwcsydcbbj/](https://www.meetup.com/EWB-USA-RTP-Chapter/events/cbwwcsydcbbj/)

Date: March 15-17, 2022

Event: Methods and Case Histories for Characterization of Potential Seismic and Geologic Hazards

Location: Virtual conference

Cost: \$75 for AEG members, \$150 for non-members, \$25 for students. Free for registrants at AEG's 2021 annual meeting

Details: This virtual conference, planned by AEG's Geologic and Seismic Hazards Technical Working Group, will be convened to discuss methods and case histories related to collecting and analyzing data for characterizing potential hazards in a variety of geo-

logic settings. Two separate keynote presentations, each delivered by an internationally recognized expert, will address practical examples and lessons learned during evolutionary development of the Senior Seismic Hazard Analysis Committee process and the field of paleo-seismology, both of which involve collection and analysis of data for characterizing geologic and seismic hazards.

CE credits: 4 hours/day

Date: Friday, March 18, 2022

Event: ASBOG FG and PG Exams

Location: McKimmon Center; Raleigh, NC

Contact: www.ncblg.org

Date: Saturday, March 26, 2022 (postponed from last October)

Event: Geologic Hike of the White Pines Nature Preserve + bonus field trip

Location: Starts at the parking lot closest to the confluence of the Rocky and Deep rivers

Cost: \$50 for AEG members, \$60 for non-members, \$25 for students

Details: Field trip of the nature preserve 9:00 AM-1:00 PM; lunch on patio at the Carolina Brewing brewpub in Pittsboro (lunch/tea/soft drinks included in registration); bonus field trip after lunch to an old quarry on the shores of Jordan Lake to see andesites and felsic tuffs, and then a short walk to see outcrops of diabase and Triassic sediments

CE credits: 6 hours

Registration: Will be at www.aegcarolinas.org

Date: April 7-8, 2022

Event: Annual Meeting of the Geological Society of America, Joint Meeting Southeastern and North-Central sections

Location: Duke Energy Convention Center; Cincinnati, Ohio

Details: <https://www.geosociety.org/GSA/Events/SectionMeetings/GSA/Sections/nc/2022mtg/home.aspx>

Date: May 23-25, 2022

Event: 71st Annual Highway Geology Symposium

Location: Renaissance Hotel; Asheville, North Carolina

Contact: www.highwaygeologysymposium.org

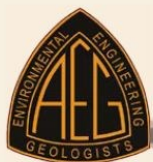
Date: September 13-17, 2022

Event: AEG's 65th Annual Meeting – "Geology in the Wild"

Location: Planet Hollywood Las Vegas Resort & Casino; Las Vegas, Nevada

Contact: www.aegannualmeeting.org

MEMBERSHIP APPLICATION



Association of Environmental & Engineering Geologists

AEG is geology in practice.

The benefits of AEG membership are many, but the simplest answer is that membership in AEG can enhance your technical and business knowledge, provide career opportunities, and introduce you to thousands of other professionals all while having fun in the process! Visit www.AEGweb.org to see all of the great benefits we have to offer our members.

1. CHOOSE MEMBERSHIP

FULL MEMBER

☐ Full Member Dues - \$140*

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, the applicant shall be practicing in the field of Engineering Geology, Environmental Geology, or Hydrogeology.

AFFILIATE

☐ Affiliate Dues - \$100*

Applicants for Affiliate Member Class shall be scientists or engineers who work with engineering geologists, or persons interested in environmental and engineering geology.

TEACHER

☐ Teacher Dues - \$35*

Applicants for Teacher Member Class shall be engaged in full-time teaching at the Primary, Secondary or Post-Secondary level in the area of Earth Science education or a related subject.

ORGANIZATIONAL AFFILIATE

☐ Org. Affiliate Dues - \$80*

Applicants for Organizational Member Class shall be engaged as members of similar geological science organizations but do not wish to become Full members of the Association.

INTERNATIONAL

☐ Int'l Member Dues - \$35*

Applicants shall hold the same requirements as Full Member Class. International Members receive (online digital access ONLY) to the *E&G Journal*, Annual Directory, Annual Meeting Program with Abstracts and the *AEG News*.

If you are a current student and interested in membership, please visit www.AEGweb.org to sign up online or download the Student Membership application to complete and mail in.

* All paying memberships listed above require applicants to pay Section dues in addition to the applicable membership fee. Please visit www.AEGweb.org to view the entire list of sections and instructions on how to choose the section located within your zip/postal code.

I am joining Section _____
Section Dues \$ _____

If you are not sure on the Section you should join, please contact us at (844) 331-7867 and we will be glad to assist you.

Send your completed form with payment to the:

Association of Environmental & Engineering Geologists

1100-H Brandywine Blvd

Zanesville, OH 43701-7303

Phone: (844) 331-7867 • Fax: (740) 452-2552 • www.AEGweb.org

2. CONTACT INFORMATION (please print legibly)

Individual Name _____

Company Name _____

Mailing Address _____

City _____ State/Province _____

ZIP+4 _____ Country _____

Phone () _____

Fax () _____

E-mail _____

Website _____

3. ADDITIONAL INFORMATION (complete as applicable to the membership you are seeking)

Institution/University (Current or Attended) _____

Anticipated Graduation Year or Graduation Year _____

Highest Program Degree Seeking or Received _____

Major _____ Focus _____

Are you a registered Geologist or Engineer? Yes _____ No _____

4. PERMISSIONS

I give permission to AEG to publish in print and online, including in Annual Directory as follows:

Publish the following:

☐ Website ☐ Name ☐ Company Name ☐ Address ☐ E-mail ☐ Do Not Publish

I give permission for contact by e-mail from the following*:

- ☐ From AEG only
☐ From AEG-sponsored events (e.g., AEG Annual Meeting, Shlemon Conferences)
☐ From third party organizations with industry-related interests
☐ Do not want e-mail communication (do not list my email in my member record)

* If you have agreed to email communications from AEG, please add the following email domains to your e-mail "safe list" now: AEGweb.org. This will help to ensure that you receive all communications from AEG (i.e., contact@AEGweb.org) and all individual staff communications whose emails contain their name and end with @AEGweb.org.

5. PAYMENT

☐ Check (Make check payable to AEG) Total Enclosed \$ _____

To join/renew and pay by credit card, please visit www.AEGweb.org and Join or Sign In (located in the upper right corner). AEG currently accepts the following credit cards: American Express, Discover, MasterCard and Visa. AEG is unable to accept credit cards by phone, fax, e-mail or mail.

If you do not remember your Username or Password, use the **Forgot Your Password?** link on the AEG website by entering the e-mail address associated with your member record. Please contact the AEG office at (844) 331-7867 if you have any questions or have trouble signing in.

(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 information on this application are true and correct.

6. SEND YOUR COMPLETED FORM WITH PAYMENT TO THE ADDRESS ABOVE.

To join online, please visit www.AEGweb.org.

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

Thank you! We appreciate your support of the Association of Environmental & Engineering Geologists.

FOR OFFICE USE ONLY

Recd	Ck#	Amt \$	ACKD





AEG CAROLINAS CHAPTER – SPONSOR INFORMATION

The Carolinas Chapter 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 (\$275):

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 Chapter email announcement (our email list is currently over 1,000 people)

Web Page: Acknowledgement on the AEG Carolinas Chapter Web Page, www.aegcarolinas.org, with a link to your site.

Gold Sponsor (\$400):

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 Chapter email announcement (our email list is currently over 1,000 people)

Web Page: Acknowledgement on the AEG Carolinas Chapter Web Page, www.aegcarolinas.org, with a link to your site.

Platinum Sponsor (\$550):

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 Chapter email announcement (our email list is currently over 1,000 people)

Web Page: Acknowledgement on the AEG Carolinas Chapter Web Page, www.aegcarolinas.org, with a link to your site.

Titanium Sponsor (\$650):

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 Eric Cross, AEG Carolinas Sponsorship Chair. Please call or email if you have any questions (contact information below).

AEG Carolinas Chapter Sponsorship Form

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

- _____ Titanium Chapter Sponsorship, \$650/year
 _____ Platinum Chapter Sponsorship, \$550/year
 _____ Gold Chapter Sponsorship, \$400/year
 _____ Silver Chapter Sponsorship, \$275/year
 _____ GeoNews Newsletter Sponsor Only (see above)

Name: _____

Address: _____

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 Eric@PyramidEnvironmental.com.

SPONSOR ONLINE AT WWW.AEGWEB.ORG or MAKE CHECK OUT TO AEG CAROLINAS

(Modified 1/8/2018)

Snail mail form and payment to:

Eric Cross, AEG Carolinas Sponsorship Chair, c/o Pyramid
 503 Industrial Avenue, Greensboro, NC 27406

**** Sponsors will be listed on the AEG Carolinas Chapter Facebook Page! ****

Thank You Sponsors!

Thanks to our chapter sponsors, without which our meeting dinners would be more expensive, and we couldn't offer reduced rates for the public sector employees and teachers, and free dinners for students. Be sure to tell them thanks for supporting AEG and our profession.

The list below includes those companies that sponsored our chapter in 2019. Due to Covid and our lack of face-to-face chapter meetings, we did not solicit sponsors for 2020 and 2021, but we are now with meetings and are contacting our past sponsors to sign up again in 2022.

TITANIUM SPONSORS

Enviro-Equipment, Inc., 11180 Downs Road; Pineville, NC 28134; www.enviroequipment.com

Rand Ratterree, rand@enviroequipmnt.com

Pace Analytical Services, Inc., 9800 Kinsey Avenue; Huntersville, NC 28078; www.pacelabs.com

Korey Drew, 704-875-9002, Korey.drew@pacelabs.com

Eastern Solutions, 10909 Rozzelles Ferry Rd., Charlotte, NC 28214; www.easternsolutionsenv.com

Edgar Alcaraz, ealcaraz@easternsolutionsenv.com

PLATINUM SPONSORS

Pine Environmental, 530 Pylon Dr, Raleigh, NC 27616; www.pine-environmental.com

Schnabel Engineering, 11A Oak Branch Drive, Greensboro, NC 27407; www.schnabel-eng.com

Gary Rogers, grogers@schnabel-eng.com

SGS North America, Inc., 5500 Business Dr, Wilmington, NC 28405; www.sgs.com

GOLD SPONSORS

Clean Vapor, LLC; 148 State Route 94, PO Box 688, Blairstown, NJ 07825; www.cleanvapor.com

Kristin Hatton, 908-362-5616; khatton@cleanvapor.com,

Contaminant Control, Inc. (CCI), 3434 Black & Decker, Road; Hope Mills, NC 28348; www.cci-env.com

Mark Vestal, 910-484-7000, mark.vestal@cci-env.com

Geologic Exploration, Inc., 176 Commerce Blvd.; Statesville, NC 28625; www.geologicexploration.com

Matt Tischler, 800-752-8853, mtischler@gexnc.com

Pyramid Environmental, P.O. Box 16265; Greensboro, NC 27406; www.pyramidenvironmental.com

Eric Cross, 336-335-3174, eric@pyramidenvironmental.com

SILVER SPONSORS

AE Drilling Services, Inc., 30 Grant Park Place; Greenville, SC 29673; www.aedrilling.com

Lynn Hendrix, 864-288-1986, lhendrix@aedrilling.com

Covanta Environmental Solutions (recently merged with EQT), 2242 Carl Drive, Asheboro, NC 27203; www.covanta.com, Geoff Myers, (336) 683-0911, GMyers@covanta.com

EGIS, PA; 441 Northside Drive; Chapel Hill, NC 27516; www.waterwellvideos.com

Mike Vaught, 919-929-8363, gwinvest@juno.com

ENCO Labs; 102-A Woodwinds Industrial Court, Cary, NC 27511; www.ENCOLabs.com

Jim Hays, 919-812-4471, jhays@encolabs.com

Environmental Risk Information Services ERIS, 2520 S Interstate Hwy 35, Suite 200, Austin TX 78704; www.erisinfo.com

Adam Phillips, aphillips@erisinfo.com, (919) 451-3370

Environmental Data Resources, 6 Armstrong Road; Shelton, CT 06484; www.edrnet.com

Todd Elmore, telmore@edrnet.com

Hazmat Emergency Response and Remediation, Inc., 303 S Maulsby Street; Whiteville, NC 28472; www.herrteam.com

Al King, 919-234-3172, al.king@herrteam.com

Parratt-Wolff, 501 Millstone Dr., Hillsborough, NC 27278; www.pwinc.com

Gary Ellingworth, gellingworth@pwinc.com

Waypoint Analytical, 449 Springbrook Road; Charlotte, NC 28217; www.waypointanalytical.com

Troy Davis, 704-386-8131, tdavis@waypointanalytical.com

SAEDACCO, 9088 Northfield Drive; Ft. Mill, SC 27406; www.saedacco.com,

Pete Byer, (803) 548-2180, pbyer@saedacco.com