PCPG Newsletter

Communicating Key Information & Concerns to Geologists and Environmental Professionals

Issue 1 / 2017

Inside this issue...

Message from the President

Houston (PA) We Have a Problem

Welcome to the 2017 season of the Pennsylvania Council of Professional Geologists. I want to thank last year's President, Gary Kribbs, for a smooth transition and for his continued work for PCPG as the Past President. Also, I'd like to thank the continued efforts of the PCPG board and our new, recently elected board members (Vincent Carbone, P.G., Tiffani Doerr, P.G., Martin Helmke, P.G., Valerie Holliday, P.G., Rick Wardrop, P.G.).

Over the next year, I'm hoping to use this column as an ongoing "state of the union address," but let me first impart a little more about me and my place in PCPG. Since the beginning of the Pennsylvanian and Appalachian Basin "Shale Revolution," I am the first president of PCPG that is not employed in the environmental consulting industry. I am an independent geologic consultant working in the oil and natural gas exploration and production industry. Also, I am the first president in 10 +/- years to have an address on the western side of Pennsylvania: actually, in Houston, PA. If you don't know, Houston sits between Washington, PA and Canonsburg, PA, about 25 miles south of Pittsburgh, along Route 79. Over the years, the PCPG has gained board members from across the entire state. So, hopefully I'll come to this position with a slightly different perspective, both from an industry and geography perspective. But, I plan to fully represent all the geologists in the state as well.

The last several years have been a trying time for the oil and natural gas industry and their geologists; hence the title of this column, "Houston (PA) We Have a Problem". Those of us who have been around a while, particularly those employed in the O&G industry, are used to this cyclicity. The O&G industry relies heavily on commodity pricing, and is driven by supply and demand. As an example, natural gas pricing at Henry Hub, a common sales point in Louisiana, in February of 2014 was as high as $8.15 per MMBTU, while this past February, the highest spot pricing was $3.44 per MMBTU (https://www.eia.gov/dnav/ng/hist/rngwhhdD.htm). The center of the Oil & Gas universe is often thought of as Houston, Texas. But, over the last few years the center of the Natural Gas universe has been western Pennsylvania, as the industry continues to explore and produce from the Marcellus and Utica Shales in PA, OH and WV.

If you have worked in the O&G industry long enough, you get used to the cyclicity. But this downturn seems a little different. It also had a large impact on the

Continued on Page 10

Soil Judging

Russell Losco, P.G., C.P.S.S., Adjunct Professor of Earth and Space Science, West Chester University

It is always fun trying to explain to a non-soil scientist that there is actually an accredited, academic college course entitled "Soil Judging". Mentioning the class usually draws strange looks and the occasional question along the lines of "Is that actually a thing?" In actuality, Soil Judging is one of the most fast-paced and rewarding courses for anybody in the Earth Sciences. Ask anybody who has taken the course what their most memorable Earth Science class was and Soil Judging is likely to be the most common response.

Students in the practice pits.

The WCU team.

The class is intended to rapidly teach students to apply the USDA method to log and describe soil profiles, better referred to as pedons, and then to interpret those pedons for use. It is typically a one credit course that lasts six weeks and culminates in the Northeast Regional Soil Judging Competition. Winners of this competition advance to the National Competition with winners there advancing to the International Competition. The result of this is that any soil scientists who have completed the course report their pedons in a standardized format that any other fellow soil scientist can understand and interpret. This model is one that might be useful in other aspects of the world of Geology and Earth Science.

Traditionally, the class was taught at the agricultural schools such as Penn State, University of Maryland and Delaware Valley University through their agronomy programs. As schools have been down-sizing these programs, the demand for soils training has shifted to schools that, until recently, did not teach these courses or compete in this event. I was privileged to teach the Soil Judging class at West Chester University in the fall semester of 2016 through the Earth and Space Science Department. This was only the second time that West Chester had competed. I was lucky enough to begin this journey in the company of 12 bright and enthusiastic students. As I had competed in Soil Judging many years ago, this was a nostalgic journey.

The competition was hosted this year by Penn State, the same place where I had competed a couple of decades ago. It was masterfully organized by Dr. Patrick Drohan, who had his hands full as this was the largest competition in the northeast region in history with nine schools and nearly 90 students competing. An integral part of the competition are the "practice pits", backhoe pits that are open for the competitors, who come from areas that are geologically and pedologically varied, to examine and describe in preparation for the competition. These were available, under a strict scheduled rotation due to the large attendance, for the two days prior to the competition. Instructors, who are referred to as "coaches", are provided with the pedon descriptions, which are traditionally compiled by USDA Natural Resources Conservation Services soil scientists. The practice and contest pits were located in the Ridge and Valley physiographic province. The underlying geology there is predominantly Paleozoic sedimentary rocks. The soils included residuum, colluvium and alluvium and included features such as fragipans, at least one ice wedge cast and lithic and paralithic contacts.

Due to mix-ups at the WCU motor pool and road construction along the route to Penn State, my hopes of getting us into the practice pits well before lunch time on the first day turned into a race to get in one practice pit before the Wednesday night

Continued on Page 3

SOIL JUDGING *Continued from Page 2*

banquet and meeting. Kudos again to Dr. Drohan for an excellent and memorable dinner and banquet location. A full day on Thursday in the practice pits took my "green troops" and turned them into veterans. Friday started early with us meeting in the dark at the PSU Agricultural Farm well before dawn to caravan to a new and undisclosed location for the competition.

Contest day was long, running over 12 hours, but the spirits were high. The competition brought together many familiar faces as many soil scientists donated their time to help. As the purpose of this competition is education, it can accurately be said that everybody did well. Bloomsburg University, also in their second time at the contest, took 1st place while the University of Maryland B and A teams took 2nd and 3rd place, the University of Rhode Island came in 4th and Delaware Valley University finished 5th. These four schools will represent the Northeast region at the National Collegiate Soil Judging contest next April that will be hosted by Northern Illinois Univ. West Chester students did me proud and placed within the upper third of the nearly 90 competitors.

The real intent and result of the competition are to standardize reporting, expose students to new soils and geology, build confidence and competency, and most importantly, to build memories and connections. I still remember, and often encounter in my professional life, the people with whom I competed. Students who have participated in this competition build a bond unlike that formed in any other class. They will carry these memories and skills forward with them into their professional lives.

Students who have participated in this competition build a bond unlike that formed in any other class

The WCU team at dawn, ready to compete.

Soil Judging Competitors giving it their best.

College & University Spotlight: Delaware County Community College

Russell Losco P.G., C.P.S.S., Adjunct Professor of Earth Science, Delaware County Community College

The world of higher education has changed. When I was an undergraduate in the late 1970's, most students entered a 4-year college and stayed there until graduation. Since then, tuition costs have risen significantly and students have had to adapt. Community colleges have stepped up to the plate and are providing a high-quality, affordable alternative to the first two years of higher education. Increasingly, students economize by choosing to attend community colleges to obtain their general education requirements, then transfer to a 4-year school to specialize in their chosen major.

Delaware County Community College (DCCC) is one of those institutions with a friendly, modern main campus in Marple, PA and nine satellite campuses spread across Chester and Delaware Counties. Founded in 1967, DCCC (sometimes referred to as DC^3) now educates over 13,000 students per year and boasts a full-time faculty of 144 and a part-time faculty of 658. Approximately 16 of these faculty teach Earth Sciences and a number of them are licensed Professional Geologists.

> "Schools like Delco are the emergency rooms of higher education..."

I have been an adjunct professor at a branch campus of DCCC for seven years now. The campus at which I teach is a Technical College and High School (TCHS), which allows dual-enrollment so I often have high school students sharing the classroom, trying to get an early start on their college education. I also regularly have students in my classroom who are studying trades such as automotive, HVAC, or cosmetology and need a science course to graduate. Often, these non-traditional students are some of the more interesting students as they often do

Continued on Page 10

Student Corner

Welcome to the *Student Corner*, a forum for information exchange between students and geologic professionals across the Commonwealth.

DON'T CHOOSE TO BE AN INDEX FOSSIL

Kurt Friehauf, Ph.D., P.G.

Majoring in geology can be tough. You take 4-5 highly technical classes, often with two, three, or even four labs that demand whole afternoons that you could otherwise spend socializing at pubs with your peers whose majors lack lab courses. Some classes drown you with a torrent of memorization – other classes befuddle you into an impotent paralysis with abstract theories or complex calculations. You need to triage your commitments because your time is limited and you need at least a little time for your health – both mental and physical.

So… what do you cut? If you're thinking of a career in mineral exploration, maybe you could skimp on hydrogeology by cramming just enough into short-term memory to eke by with a marginally embarrassing grade, and then forget it all. Maybe you plan to be a hydrogeologist, so you know you're not going to need petrology in your lifetime – no point in spending more than minimal effort on that, right?

We don't really know, however, what we will be doing in the future. As Robert M. Pirsig wrote in Zen and the Art of Motorcycle Maintenance, "We take a handful of sand from the endless landscape of awareness around us and call that handful of sand the world." We imagine our future lives by extrapolating from our brief past experience – experience we observed only from our infinitesimal perspective, ignorant of so very, very much that happened out of our sight.

As a young geology major taking structural a geology class, I blew off the lectures about the geology of the Appalachian Mountains because I knew I would never live east of the Colorado Front Range so the Appalachians were irrelevant to my future life… but I ultimately ended up moving to Pennsylvania where I started as an ignorant newborn babe in Penn's woods. My extrapolation of my future wasn't even close to the mark. I was (and arguably still am) a fool.

Many exploration geologists switch to careers in environmental geology during economic downturns in the oil/gas/metals resource job cycle. Many geologists who continued to work in the resource geology industry adapted to shifting markets – uranium exploration in sandstones while uranium prices were hot, then copper in granite during building booms, then auriferous siltstone as gold prices skyrocketed in uncertain times, etc. The successful geologists are the ones who can adapt, and having a broad knowledge of many facets of geology makes adaptation possible.

Germans have a derogatory term for people who are one-track specialists: Fachidiot (Fach = subject, Idiot = idiot… sort of rhymes with rock-ee-dee-ote, but with the raspy throat-clearing sound for the ch). A Fachidiot learns a narrow range of ideas well, but forgets or doesn't bother at all to learn subjects peripheral to their laser-focused path toward a future they believe they know they'll live. If the world is precisely what they believe it to be and never changes, then they'll be fine. Breadth of knowledge, however, enables one to adapt to inevitable change.

Index fossils are the remains of creatures who lived in only a very limited window of time. They are creatures who thrived brilliantly, but only in that geologic moment for which they were so narrowly adapted. When conditions changed, index fossil species go extinct. Conditions always change. Don't choose to be an index fossil.

PCPG's Government Affairs Committee (GAC) Update

Mark Ioos, P.G., Skelly & Loy

2017-2018 Legislative Session

The members of the House and the Senate began the 2017-2018 legislative session on January 3rd, 2017. Since the start of the 2017-2018 legislative session, a total of 14 bills and 1 resolution of interest have been submitted in the House. A total of 9 bills of interest have been submitted in the Senate.

The GAC follows legislative action in both the House and Senate. Bills of interest to geologists are being tracked via an inclusive list included on PCPG's website, under Government Affairs. The list can be viewed via the following link and clicking on "Members-Only content".

https://pcpg.wildapricot.org/Sys/Login?ReturnUrl=%2fGovtAffairs

DRBC Approves Fee Restructuring

On Wednesday December 14th, 2016, the Delaware River Basin Commission (DRBC) approved several changes to its project review fee structure, including an annual, indexed inflation adjustment for most fees and water supply charges. According to a press statement, the current project review fees have not been adjusted since July 2009. Due to higher operating costs, a funding gap had developed because the old fees did not fully cover the regulatory program costs needed to manage and protect the basin's water resources. Highlights of the changes can be viewed via the following link and include:

http://www.nj.gov/drbc/home/newsroom/news/approved/20161214_newsrel_fees.html

- The new fee structure will align with the One Process/One Permit Program that the DRBC implemented on March 4, 2016.
- For routine DRBC docket applications and renewals that are processed by DRBC's member state agencies through One Process/One Permit, the DRBC project review fees that had previously been in effect will be eliminated.
- DRBC will continue to be involved in the review process; however, a separate DRBC fee will no longer be required at the time of application to the state agency.
- DRBC's costs associated with reviews will now be supported by an annual monitoring and coordination fee. This annual fee will apply to all water withdrawals and wastewater discharges subject to DRBC review and approval under the Delaware River Basin Compact and implementing regulations, including those permits issued under One Process/One Permit. The annual fee will range from $300 to $1,000 depending upon the monthly water allocation for withdrawals and the design capacity for wastewater dischargers.
- The project review fee with respect to water withdrawal projects for which the DRBC continues to act as the lead agency will be restructured. The amount will no longer be based upon project costs or a flat renewal rate; rather, it will be based upon the applicant's requested monthly allocation. This change will better align DRBC's review fee with the actual cost of conducting a thorough technical review of these applications.
- The project review fee for most wastewater discharges for which DRBC issues a separate docket will continue to be a flat fee of $1,000 for private projects and $500 for publicly sponsored projects. This fee will no longer vary according to the cost of the projects.
- There will be no change to fees for DRBC's review of projects that are neither water withdrawals nor wastewater discharges. The DRBC review fees for such projects are, and will continue to be, based upon project costs.
- DRBC will now have an annual indexed inflation adjustment for most fees and charges, including water supply charges. Beginning in 2017, increases reflecting inflation adjustments will become effective automatically on July 1. No change to the rate will occur in any year in which the applicable inflation index is flat or negative.
- The water supply charges will now be subject to an annual inflation adjustment, but otherwise no changes to the rate structure or base rates that have been in effect since January 2011 will result.

PA-1-Call Update

On Thursday January 26, 2017, Senator Lisa Baker (R-Luzerne), introduced legislation (SB 242), to add natural gas gathering lines to the PA One Call utility construction safety program so they can be identified and mapped for emergency services. This is the reintroduction of similar legislation (SB1235), from the 2015-2016 legislative session. This previous bill failed, due to stiff opposition from conventional oil and gas drillers.

Continued on Page 7

GAC UPDATE *Continued from Page 6*

FYI, there are 60,000 to 100,000 miles of natural gas gathering lines in 33 counties within the Commonwealth. On an annual basis there are more than 6,000 incidents of striking buried utility lines, with approximately half involving natural gas lines because owners of gathering lines are not included under the umbrella of the PA One Call program.

Some sort of legislation regarding re-authorization of the PA One Call program will be addressed in 2017, because the Act is set to expire on December 31st, 2017. It is still too early to tell whether or not the provisions to include gathering lines in the PA One Call program will be adopted.

SRBC Proposed Project Review Regulation Amendments and Proposed Consumptive Use Mitigation Policy

On January 23, 2017, the PA Chamber of Business and Industry submitted comments to the Susquehanna River Basin Commission (SRBC) regarding a new proposal to change the way mitigation is addressed for water withdrawals within the basin. The PA Chamber's comments express concern regarding shifting the burden for mitigating the impact of consumptive water withdrawals to individual facilities and away from the Commission. The comments suggest a more reasonable, thoughtful path forward and also address new regulations that seek to require more information from projects that were in existence prior to the Commission gaining the authority to regulate withdrawals. A copy of the PA Chamber's comments can be downloaded at the following link: Proposed_SRBC_Project_Review_Regulations_and_Consumptive_Use_Mitigation_Policy

PADEP's Updated Non-Regulatory/Technical Guidance Agenda for 2017

The Pennsylvania Department of Environmental Protection (PADEP) published its latest Non-Regulatory Agenda on February 2, 2017, listing technical guidance the agency will propose and finalize over the next year. Among the guidance documents to be considered are the following. More information can be found at the following website.
http://www.elibrary.dep.state.pa.us/dsweb/Get/Document-116040/0120-RE-DEP4509%20Non-Regulatory%20Agenda.pdf

Public Participation

- Policy For Development & Publication Of Technical Guidance - Draft 2nd Quarter
- Policy For Development, Approval & Availability Of Regulations - Draft 2nd Quarter
- Policy On Public Participation Of Regulations & Guidance - Draft 2nd Quarter
- Policy On Interacting With Advisory Committee Guidance - Draft 2nd Quarter

Coal Mining

- Surface Water Protection Evaluation For Underground Mines Guidance - Draft 2nd Quarter
- Civil Penalty Assessments - Draft 2nd Quarter

Oil & Gas Management

- Emergency Response Planning For Unconventional Well Sites - Draft 2nd Quarter
- Civil Penalty Assessments - 3rd Quarter Draft
- Public Resources Impact screening - Draft 4th Quarter
- Noise Control At Unconventional Well Sites - Draft 4th Quarter
- Area Of Review Requirements For Unconventional Wells - Final 4th Quarter
- Replacement Water Supplies - Final 3rd Quarter

Radon

- PA Radon Mitigation Standards For Contractors - Draft 4th Quarter

Air Quality

- Air Quality Permit Review, Inspection Protocol - Draft 2nd Quarter

Continued on Page 8

GAC UPDATE *Continued from Page 7*

PADEP Drinking Water Program

In a letter dated December 30th, 2016, the U.S. Environmental Protection Agency notified PADEP's Safe Drinking Water Program that its lack of resources to enforce minimum federal requirements could be grounds for taking primacy away from Pennsylvania.

This is not the first time EPA and other federal agencies have warned Pennsylvania that it is inadequately funding PADEP to enforce minimum federal environmental protection and public health laws and not even the first time for this program. EPA's review said Pennsylvania failed to conduct the minimum number of sanitary surveys of water systems-- once every 3 years for community water supplies and once every 5 years for non-community systems-- schools, camps, bulk water suppliers.

Because of the lack of staff, PADEP completed only 1,847 sanitary surveys in FY 2015-16 compared to 3,177 in FY 2009-10. EPA also pointed out, the lack of staff meant the number of unaddressed Safe Drinking Water Act violations doubled over the last five years from 4,298 to 7,922. "This increased risk to public health is of concern to EPA," the letter said.

To address these concerns, in a budget hearing on February 27th, 2017, Patrick McDonnell (PADEP's acting secretary) announced the agency's plans to implement a fee increase on public water supply systems to raise an additional $7.5 million to shore up its beleaguered safe drinking water program. PADEP collects less than $172,000 a year in permit fees from the state's public water supply systems, according to an October 2016 report. The PADEP expects the proposed increase in fees would cost the 10.7 million customers of the state's public water systems from 35 cents to $10 per person per year, depending on the size of the water system in their communities.

PADEP Proposes Changes to Technical Guidance for AST/UST Closure and E.coli Laboratory Reporting

In the February 4th, 2017 edition of the Pennsylvania Bulletin, the Pennsylvania Department of Environmental Protection (PADEP) published notice of proposed changes to the technical guidance clarifying closure requirements for aboveground storage tanks (AST) and underground storage tanks (UST) and for Cryptosporidia, E.coli and turbidity laboratory reporting requirements for public water systems. Comments on these technical guidance documents are due on March 6th, 2017. A copy of the notice published in the PA Bulletin can be found at the link listed below.
http://www.pabulletin.com/secure/data/vol47/47-5/196.html

- **DEP ID: 263-4200-001. Title: Closure Requirements for Aboveground Storage Tank Systems. Description:** The purpose of this guidance is to establish minimum standards that must be met to comply with the closure requirements for regulated large aboveground storage tank systems. These procedures include closure notification, tank handling, waste management and disposal, site assessment, sampling requirements, analytical requirements, release reporting and recordkeeping.

- **DEP ID: 263-4500-601. Title: Closure Requirements for Underground Storage Tank Systems.** Description: The purpose of this guidance is to establish minimum standards that must be met to comply with the closure requirements for regulated underground storage tank systems. These procedures include closure notification, tank handling, waste management and disposal, site assessment, sampling requirements, analytical requirements, release reporting and recordkeeping.

- **DEP ID: 390-3301-001. Title: Cryptosporidia, E.coli and Turbidity LT2ESWTR Laboratory Reporting Instructions for Public Water Systems Using Surface Water or Groundwater Under the Direct Influence of Surface Water (GUDI) Sources.** Description: The guidance is necessary because: (1) The Long-term 2 Enhanced Surface Water Treatment Rule (LT2ESWTR) introduces source water quality monitoring and additional treatment requirements for higher risk water systems, to enhance public health protection against pathogenic microbial contaminants, especially Cryptosporidia.

Are Relaxed Cleanup Standards for Benzo(a)pyrene a Future Possibility?

Benzo[a]pyrene is a polynuclear aromatic hydrocarbon (PAH) and is typically generated during the combustion of organic matter such as wood, coal, oil, gasoline, diesel fuel, kerosene, and charcoal. For these reasons, benzo[a]pyrene is commonly encountered when conducting site assessments in urban and industrialized areas. Being so ubiquitous, this compound is frequently detected in soil/groundwater samples collected as part of the remediation of Brownfield sites and during the management of urban fill materials. Benzo[a]pyrene is often the highest-risk contaminant at sites impacted by PAHs and historic fill materials such as ash, and drives the remediation of soil that would otherwise be accepted as "clean" for other regulated substances.

In January 2017, the US EPA released a new report regarding a risk assessment study on benzo[a]pyrene (Toxicological Review of Benzo[a]pyrene [CASRN 50-32-8], January 2017).

The report has been adopted into the EPA's Integrated Risk Information System (IRIS), and provides revised estimates of several important toxicological parameters regarding benzo[a]pyrene that are used to develop risk-based standards. The EPA's assessment

Continued on Page 9

GAC UPDATE *Continued from Page 8*

concludes that benzo[a]pyrene is still a potent carcinogen, but the new risk-based numbers suggest that the compound is not as toxicologically potent as was previously thought. It is anticipated that once the PADEP incorporates this new information into the Statewide Cleanup Standards, under Chapters 250.304 and 250.305 of the Pennsylvania Land Recycling Cleanup regulations, it should result in less stringent cleanup standards for impacted sites within the Commonwealth of Pennsylvania.

The revised toxicity criteria form the basis of the Pennsylvania Statewide Health Standards, which define the acceptable default risk and cleanup levels for benzo[a]pyrene. Using the equations in the Pennsylvania Land Recycling Cleanup regulations, less-stringent standards should take effect once the Cleanup Standards Scientific Advisory Board (CSSAB) has the opportunity to consider the new EPA toxicity criteria and revise the regulations.

DRBC Making Moves to Lift Shale Drilling Ban in Pennsylvania

On November 29, 2016, representatives from the PADEP met with officials from the Delaware River Basin Commission (DRBC) to discuss draft regulations for drilling in the Delaware watershed. Such draft regulations would be tied to the DRBC's Water Resources Program for FY 2017-19 which includes a special section for "natural gas and related infrastructure. That section is repeated word for word in the new program document, which was on the agenda of the DRBC's February 15, 2017 public hearing. The announcement states:

"*…DRBC staff will support the development and advancement of natural gas regulations and related infrastructure guidance consistent with leadership on this matter at the Commissioner level... staff will continue to review, revise or redraft, as necessary, the previously published draft Natural Gas Regulations. Staff will provide support to the process leading up to an action on the regulations by the Commissioners.*"

Information presented in the PADEP's January 2017 Citizen's Advisory Council report, indicated that at the November 29, 2016 meeting, "*all jurisdictions" at the meeting reviewed the draft regulations and "provided direction to the commission related to the next steps for regulatory actions. DRBC will be providing additional edited language for certain sections of the proposed regulations to the jurisdictions as follow up actions. Commissioners from all the jurisdictions will continue to discuss future actions concerning oil and gas activities in the basin.*" The report information can be viewed on Page #25 of #28 at the following link.
http://files.dep.state.pa.us/PublicParticipation/Citizens%20Advisory%20Council/CACPortalFiles/Meetings/2017_01/January%20CAC%20Report.pdf

According to a DRBC spokesman who was interviewed by the Associated Press inquiring about the status of the drilling regulations: "*There is no timeframe for when the draft regulations will again come up for a vote*".

A federal lawsuit filed in May 2016 argues the DRBC has no legal authority to block natural gas development. The plaintiff is Wayne Land and Mineral Group LLC, which wants to drill on its 180-acre property in northeastern Pennsylvania but has been stymied by the moratorium. The landowners have asked a judge to rule that the commission lacks jurisdiction to regulate drilling. The suit is pending.

Pennsylvania Governor Tom Wolf, who has a seat on the DRBC Board of commissioners by virtue of his office, said in 2015 he supported the moratorium. His position reportedly has not changed.

Water Well Construction Standards

On February 8, 2017, Representative Robert Godshall (R-Montgomery) submitted HB 417 that included a call for the PADEP to develop construction standards modeled after those recommended by the National Groundwater Association for private water supply wells. This legislation is similar to House Bill 48 in the 2015-2016 legislative session.

On February 23, 2017, Kate Harper (R-Montgomery) submitted HB 596 that also included a call for the PADEP to develop construction standards modeled after those recommended by the National Groundwater Association for private water supply wells. This legislation is similar to House Bill 81 in the 2015-2016 legislative session.

Both bills are very similar (some differences in the wording, definitions, and compliance requirements). Earlier in January 2017, I reached out to Bill Reichart of William W. Reichart, Inc., current President of the Pennsylvania Ground Water Association (PGWA) to get an update water well construction standards. In the past, the PGWA has been the organization pushing for water well construction standards. Since my conversation with Bill in January 2017, I do not have an update on which bill (HB 417 or HB 596) is favored by the PGWA for moving forward through the legislative process. In the past three legislative sessions, the PCPG has been requested by the Consumer Affairs legislative committee to provide testimony on legislation regarding proposed water well construction standards.

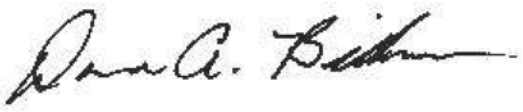
PRESIDENT *Continued from Page 1*

environmental geology community. Over the last 5+ years, the O&G industry relied more and more on environmental geologists. Environmental geologists were designing and permitting wells, drilling pads, roads, pipelines, stream crossing and borings, water monitoring, water sourcing, water treatment and disposal, and likely the list goes on. (And if I missed your specialty in this list, I apologize). The point is, as the downturn started a few years ago, it affected more than the O&G exploration geologists. It greatly affected the environmental geologists that provided needed support to the O&G industry.

So, is there a light at the end of the tunnel that is this downturn? I do think so. As mentioned before, this is a supply and demand driven industry. Supply does not appear to be an issue; we have found a lot of natural gas (methane) and associated natural gas liquids (higher chain hydrocarbons, ethane, propane, butane, etc.). We need more demand. With the permitting of the ethane cracker plant in Beaver County, PA, recently permitted pipelines crossing the state, opening our Southwestern PA natural gas to Northeastern and Southeastern US markets, and with continued liquefied natural gas (LNG) exports, hopefully we will be seeing increases in natural gas demand, and resulting increased opportunities for geologists across the state.

I look forward to working with PCPG's membership across our Commonwealth on the issues facing our profession.

Sincerely,



Dan Billman, P.G. – PCPG President

DCCC *Continued from Page 4*

not want to be there and I have to help them learn to appreciate the value of science. In my experience, almost every student is working while attending school, sometimes at multiple jobs.

The diversity of the student body is astonishing. I have had numerous combat veterans and at least one grandmother in my classroom. I have had a mother and two of her daughters, spaced out over three semesters. I have had brilliant students who have gone on and are doing wonderful things. I have had students who just needed to fill a gap in their knowledge and decided to fill that gap with Earth Science. Almost every semester I have a student approach me to tell me that they have decided to major in the Earth Sciences because of my class. As an instructor, that is the greatest reward imaginable. Each student has their own reason for being there. A colleague, Mike Mallowe, in an op-ed piece said, "Schools like Delco are the emergency rooms of higher education. Get admitted; get fixed up, and get on your way. No frills, no wasted motion. Pass a course, maybe save a life – your life". I have heard the National Guard referred to as "citizen soldiers", well we adjuncts at DCCC are "citizen educators". It is easily the most rewarding and challenging job of my life.

DCCC has transfer agreements with approximately 15 four-year schools in the Philadelphia area, allowing students to automatically transfer after completing an associate degree. This allows a student to enter one of these 4-year schools as a junior with all credits and grades accepted. Many of the faculty at DCCC regularly interact and conduct research with the faculty of these four-year schools. DCCC therefore is a lower-cost alternative that allows a freshman or sophomore level student to begin their college education with flexible schedules, multiple campuses and quality instructors. DCCC is an institution committed to excellence and to educating everybody who comes there to study.

DEADLINE FOR OUR NEXT NEWSLETTER IS MAY 22, 2017

For more information, contact our PCPG Newsletter Editor and Communications Committee Chairperson - John Torrence, P.G., by **Email** or telephone at 609-932-7090.

2017 PCPG MEMBER SPONSORSHIP RATE

(Rates are listed as amount per issue)

Size	Commitment:	1x	4x
1/2 Page		$225	$150
1/4 Page		$140	$95
Business Card (H or V)		$75	$50

2017 PCPG NON-MEMBER SPONSORSHIP RATES

(Rates are listed as amount per issue)

Size	Commitment:	1x	4x
1/2 Page		$300	$240
1/4 Page		$185	$150
Business Card (H or V)		$100	$80

SPONSORS: Please remit payment to PCPG, 116 Forest Drive, Camp Hill, PA 17011

Don't Forget to Contribute to the PA GEOPAC!

Through PA GEOPAC, the official political action committee (PAC) of PCPG, you have an effective way to lend financial support to candidates and legislators who support the legislative goals of our organization, or who are willing to lend an ear to our members. More than 200 trade and professional organizations in the state have formed PACs including doctors, dentists, lawyers, bankers, and builders.

Your donation will help to strengthen our voice when and where it is needed most...right now at the state Capitol, where decisions are being made regarding many topics that affect the business of geology in Pennsylvania.

Mail your check made payable to GEOPAC:

GEOPAC
116 Forest Drive, Camp Hill, PA 17011

Contributions may be made by personal check or company check only if from a sole proprietorship or partnership. Otherwise, no corporate or business checks may be accepted.

Essentials of Surface and Borehole Geophysical Methods

April 19 • Reading, PA

May 17 • Monroeville, PA

Carbonate and Karst Field Trip Including Underground Mine Tour

June 9 • York, PA

Visit www.pcpg.org

PA Council of Professional Geologists
(717) 730-9745 • info@pcpg.org

PCPG's Associate Members for 2017:

Eichelbergers, Inc.
Contact: Ted Gayman
Phone: (717) 766-4800 x3118

Exploration Instruments LLC
Contact: Jeffrey Leberfinger
(717) 303-5406

Please consider the environment before printing this newsletter.