



## AIPG GEORGIA SECTION

Ron Wallace, President  
Eric Lowe, Vice President  
Susan Kite, Treasurer  
Taylor West – West Georgia student chapter  
Alexandra Simpson – Georgia State student chapter  
Kenneth Roop-Eckart – Columbus State student chapter  
Lauren Carter – University of Georgia student chapter  
Huy Luu - Georgia Southwestern State student chapter  
Logan Moore – University of North Georgia student chapter

September 2016

### NEXT MEETING

## CAVING TRIP TO NORTHWEST GEORGIA AND ALABAMA

**When:** Saturday, November 5, 2016

**Where:** To be determined

AIPG Members and guests call or email by Monday October 31, 2016, if you plan to attend  
[Call Ron Wallace (404) 362-2589 or [ronald.wallace@dnr.state.ga.us](mailto:ronald.wallace@dnr.state.ga.us)]

---

### **PRESIDENTS MESSAGE**

Our section is working on a few events this fall. We do need to hear from our membership and student chapters on what they would like to see. If you are a student officer at one of our chapters please contact me so we can quickly get contact information. We would like to get some of the student officers together this fall on a Saturday to let them know what AIPG can do for them and how their membership is very important while they are a student and into their careers.

I do want to remind everyone to pay their annual dues to AIPG National. Your dues are very important to the organization. Our section does not receive any money from National and it's through our conference and generosity of our members that we can award student scholarships and money to support our student chapters. I already have one scheduled talk this fall. On October 25, 2016, I'm visiting Berry College and giving a talk to their environmental class.

On March 30 - 31, 2017, we will have a booth at GSA Southeastern Conference in Richmond, VA. Mike Lawless from Virginia and past AIPG National President and I are co-chairing a session on "Geoscience Careers for New Geoscience Graduates". This is the fourth time that AIPG members have offered this session and the last time in Chattanooga the room was overflowing with students. We are looking for speakers in different areas of employment within the geosciences.

Our 7<sup>th</sup> Conference on: Innovative Environmental Assessment and Remediation Technology is scheduled for April 17-18, 2017. We are looking for new speakers so you have plenty of time to put a presentation together. We expect to have a few EPD talks to discuss all the new guidance documents for the UST Program and the new risk-based corrective action that will be implemented.

Georgia Geological Society announced their upcoming annual field trip that will be held on October 7-9, 2016. The headquarters will be the Holiday Inn on Jekyll Island. The deadline for room reservation at the Holiday Inn (912-635-2211) is September 6, 2016. The field trip will focus on erosion and depositional features on Sea Island and Jekyll Island. There will be a LiDAR demonstration during the visit and on Saturday afternoon a visit to Southern Ionics Mission Mine.

The 2017 AIPG National Conference will be in Nashville, TN. The dates haven't been set.

---

## LAST MEETING

On June 16, 2016, a few EPD employees met up with a few AIPG members in Savannah to observe drilling operations for installation of a 4,000-foot public drinking water supply test well being financed by the Georgia Environmental Finance Authority (GEFA) at a cost of \$4.5 million. Governor Nathan Deal is attempting to expand the state's water supply development program because new sources are needed. This well will be constructed in order to produce from intervals well below the Floridan aquifer, the most widely used aquifer in the Southeastern United States.

Over pumping of the Floridan aquifer has resulted in the flow of salt water into wells located on Hilton Head Island, approximately 10 miles to the NNE. Hilton Head installed a similar test well to 3,200 feet BGS. Cutbacks on pumping are being planned for Floridan wells located in Chatham, Liberty and Bryan counties, which would hopefully retard the intrusion of salt water into Georgia wells. However, it is known that Tybee Island is currently located near the front edge of the slow-moving salt water lens.

The stratigraphic objectives of the water-producing zone proposed for the Tybee Island test well are Cretaceous in age and include: Providence Sand, Ripley Formation and the Cusseta Sand. The top of the Cretaceous section was picked at 1,800 feet BGS, where the water is assumed to be slightly salty.

Drilling activities were in progress when the group arrived around noon. Bob Baker and Jim Rentschler, both with Layne Drilling, hosted a question and answer session. The drill bit was at a depth of ~3,000 feet below ground surface (BGS); maximum drilling rate has been as high as 150 feet per day. The pilot hole had already been drilled and sampled using a rotary drill bit with an outer diameter of 12¼ inches. To keep the boring open, the driller chose to change from air to drilling mud at 1,150 feet BGS. Lithology and well construction details were evaluated using electric logs including gamma, caliper and sonic. In addition, actual samples of the sediment and rock were compared to the curves shown on the electric logs.

Following drilling of the pilot hole, an 18¾-inch rotary drill bit was used to re-enter the pilot hole and complete a deep section of surface casing, seated at around 1,200 feet BGS, to block shallower groundwater from contaminating the water bearing zones chosen as the producing intervals. Screen zones open to the producing parts of the formation were proposed between 2,970 and 4,000 feet BGS. A recent innovation in well construction, there will be several intervals of blind riser pipe located where relatively impermeable parts of the Cretaceous rock column are located. Well casing and screen will have an outside diameter of 10 inches.

Actual producing performance of the well will be tested with aquifer tests planned for July and August 2016. Pumping rate will start around 650 gallons-per-minute (gpm) and will continue for 30 days under a temporary discharge permit from EPD. Discharged water is expected to have low oxygen content and a temperature of up to 118 degrees. Water produced from the well will be routed to the "Cooling Pit", where it will be cooled prior to discharge into the ocean. It will be blended with Tybee's wastewater discharge prior to being channeled into the ocean.

I'd like to thank Bob Baker, Jim Rentschler, and Jay Swartzentruber, with Layne Drilling and Michael Snare, with Hussey, Gay and Bell.



Test well at Tybee Island Public Works Facility



Drill cuttings down to 4,000 feet





Layne Drilling drill floor



Control room



Cooling pit



EPD employees



---

## FEDERAL DOCUMENTS

### House and Senate Committees pass FY 2017 Interior and Environment appropriations bills

The House and Senate Appropriations Committees each passed their fiscal year (FY) 2017 Interior, Environment, and Related Agencies appropriations bills this June. The bills allocate funding for the Bureau of Land Management (BLM), Bureau of Ocean Energy Management (BOEM), Bureau of Safety and Environmental Enforcement (BSEE), the Environmental Protection Agency (EPA), the National Park Service (NPS), the Smithsonian Institution, and the U.S. Geological Survey (USGS) from October 1, 2016 through September 30, 2017. Both chambers must agree on a single version of the bill before sending it to the President for his signature.

Both versions of the bill provide modest increases for the USGS. The House version of the bill would allocate \$1.08 billion; a 1.7 percent increase over the FY 2016 enacted level. All mission areas within the USGS would see slight increases under the House version of the bill except for the Energy, Minerals, and Environmental Health mission areas, which would be flat funded at \$94.5 million. The Senate version of the bill would allocate \$1.068 billion; a 0.6 percent increase over the FY 2016 enacted level. Within the Senate bill, the Water Resources and Ecosystem mission areas within USGS would see slight decreases to their funding: 0.8 and 0.3 percent decreases, respectively. Both versions of the bill would decrease funding for BLM, BOEM, BSEE, and NPS.

### Hearing highlights implications of Supreme Court stay of the Clean Power Plan

The Senate Committee on Environment and Public Works held a hearing on the implications of the U.S. Supreme Court stay of the President's Clean Power Plan (CPP). The CPP, announced in August 2015, sets state-by-state targets for reductions in carbon emissions from existing power plants.

In a 5-4 decision in February, the Supreme Court handed down a historic decision halting the implementation of the CPP pending further review. During the stay, states are not required to comply with the CPP; however, the stay does not prevent the EPA from issuing guidance and tools to states interested in working toward the CPP's goals. Additionally, the stay does not guarantee the postponement of compliance deadlines if the regulations are upheld. Therefore, opponents argued that states would effectively be required to keep up with the new regulations for fear of potential penalties, thereby negating any relief provided by the stay.

In his opening statement, Chairman James Inhofe (R-OK) expressed concern over the CPP's impact on energy costs and grid reliability. Missouri State Representative Jack Bondon echoed these concerns, arguing that Missourians who already pay 18 cents on the dollar for electricity cannot afford higher utility prices, and that the plan disregards steps Missouri has already taken to develop its own customized energy standards and provisions. Senator Deb Fischer (R-NE) similarly expressed concern for Nebraska, which would face the challenge of reducing its carbon emissions by 40 percent under the plan.

Chairman Inhofe additionally challenged the legality of the rule, calling the plan "unsound." Senator Dan Sullivan (R-AK) and others also expressed concern that the EPA is overstepping its congressionally authorized bounds.

Conversely, Senator Sheldon Whitehouse (D-RI) spoke in support of the CPP, using former Senator John Chafee's (R-RI) 1986 testimony on greenhouse gases to argue against a "wait and see" approach. Additionally, proponents of the CPP argued that the successful Regional Greenhouse Gas Initiative (RGGI) illustrates potential positive outcomes of the CPP.

The U.S. Court of Appeals announced in May that the CPP will go before the full Supreme Court in late September, skipping a customary three-judge panel review. This *en banc* review is extremely rare in the D.C. Circuit.

### **CHOW 2016 includes a panel on changing offshore energy portfolios**

Inspired by recent milestones in domestic offshore wind energy and persistently low oil and gas prices, Capitol Hill Ocean Week (CHOW 2016) included a panel on potential changes to U.S. offshore energy portfolios.

The panel, moderated by E&ETV's managing editor Monica Trauzzi, included Abigail Hopper of the Bureau of Ocean Energy Management, Nancy Sopko of the American Wind Energy Association, Erik Milito of the American Petroleum Institute, and John Weber of the Northeast Regional Ocean Council.

Hopper and Sopko both attributed recent offshore wind development to the Obama Administration's commitment to addressing climate change, citing Deepwater Wind's Block Island Wind Farm project, as well as 13 other projects in 10 states, including LEEDCo's offshore freshwater wind project in Lake Erie and Fisherman's Energy's plans for a wind farm off of Atlantic City, NJ.

Despite cost challenges, Sopko believes land-based wind manufacturers can supply necessary materials for offshore wind projects and increase jobs. For offshore wind to continue expanding, however, Hopper noted three key needs: stable permitting processes, strong state policies that spur renewable energy demand, and successful technologies.

Referring to the future of offshore oil and gas, Hopper noted that the 2017-2022 Outer Continental Shelf Oil and Gas Leasing Program plan should be finished by year's end, making available thirteen potential leasing sites, including three in the Arctic. However, many companies remain wary of investments in the Arctic due to uncertainty in both resource abundance and legislation, Milito said.

While emphasizing oil and gas as the foundation to the U.S. energy portfolio, both Milito and Hopper cautioned against the "false choice" between either oil and gas or renewable energy; instead of only one or the other, investment in renewables by the oil and gas industries and the slow evolution of their business models away from fossil fuels will lead to diversified offshore energy portfolios, they argued.

### **U.S. District Court rejects BLM authority to regulate fracking on public and tribal lands**

The U.S. District Court for Wyoming ruled that the Department of the Interior (DOI) and Bureau of Land Management (BLM) have no authority to regulate hydraulic fracturing, commonly known as "fracking," on public and tribal lands.

In 2015, Colorado, North Dakota, Utah, and Wyoming, as well as two industry groups and the Ute Indian Tribe sued DOI and BLM for attempting to pass a rule setting new requirements for wellbore construction,

chemical disclosures, and wastewater management for fracking on public and tribal lands. The rule would have also required operators to get BLM approval before fracking. The rule had received over 1.4 million public comments since its first draft in 2012, and had been stalled in litigation since its release in March 2015.

The court issued its final ruling this June, in a move the appellants celebrated as a victory against federal agencies proposing regulations with “self-proclaimed prior regulatory authority.” The decision is expected to be fiercely challenged by environmental groups, the DOI, and the BLM in the 10<sup>th</sup> U.S. Circuit Court of Appeals as early as this fall. The groups claim the ruling was legally flawed and will be detrimental to public and tribal lands.

### **Webinar explores proposed nuclear waste storage solutions**

The Council of State Governments’ (CGS) Southern and Midwestern Legislative Conferences hosted a webinar to explore nuclear waste storage solutions. This webinar, the second of a two-part series, highlighted actions the federal government and private sector are currently taking to handle this ongoing issue.

Andrew Griffiths from the U.S. Department of Energy (DOE) emphasized that consent-based siting is the best way to find a solution for a long-term nuclear waste storage facility, and that it is superior to a top-down approach. Griffiths explained that the DOE has just recently completed the last of their 8 public meetings about consent-based siting, and that Nye County, Nevada was not included because the DOE did not want to presume that this location was the solution. He highlighted that the DOE has requested \$25 million in their fiscal year 2017 budget for grants to states, local governments, communities, and tribal nations that participate in the consent-based siting process.

Betsy Madru from Waste Control Specialists (WCS) drew attention to consolidated interim storage (CIS) and the potential for a CIS facility in Andrews County, Texas. She explained that since WCS already safely stores hazardous and radioactive waste, and has the infrastructure to support transportation of these materials, they are currently seeking a license with the Nuclear Regulatory Commission to allow the storage of used nuclear fuel.

John Heaton from Eddy Lea Energy Alliance (ELEA) announced ELEA’s partnership with Holtec International to build an underground CIS facility in southeastern New Mexico that is designed for a 100-year lifespan, and has already received state support. Heaton noted the urgency of CIS, as an agreement on long-term storage is not moving forward in Congress. He expects the National Environmental Policy Act Review process to span about 2.5 years of hearings.

### **House passes two energy research bills**

The Solar Fuels Innovation Act (H.R.5638) and the Electricity Storage Innovation Act (H.R.5640) passed the House by voice vote this July. The bills, which require the Department of Energy (DOE) to carry out two new basic research initiatives, received bipartisan support.

The two initiatives include the Solar Fuels Basic Research Initiative and the Electricity Storage Basic Research Initiative, both of which seek to “expand theoretical and fundamental knowledge” with regard to controlling, storing and converting solar and electrical energy into chemical energy, respectively.



The acts authorize DOE to use \$150 million annually from fiscal year (FY) 2017 to FY 2020 to carry out the new initiatives. Of that total, \$100 million will come from within DOE's Office of Science and \$50 million will come from the DOE's Office of Energy Efficiency and Renewable Energy (EERE).

### **House Natural Resources panel considers renewable energy on public lands**

The House Natural Resources Subcommittee on Energy and Mineral Resources held a hearing to discuss the Public Land Renewable Energy Development Act (H.R.2663), a bipartisan bill with 67 cosponsors that was introduced by Rep. Paul Gosar (R-AZ) in 2015.

If enacted, H.R.2663 would streamline the permitting process for wind, solar, and geothermal energy development on federal lands by limiting the National Environmental Policy Act (NEPA) review process. Instead of conducting new programmatic environmental impact statements (PEIS) for each proposed project, the bill would allow renewable energy projects to use preexisting, preapproved final PEISs for wind, solar, and geothermal projects on federal lands.

The bill also establishes a royalty and revenue structure for states and counties with renewable energy development. The Secretary of the Interior would determine royalty rates, with 25 percent of generated royalties going to the state, 25 percent to the counties, 15 percent to the Treasury, and 35 percent to a Renewable Energy Resource Conservation Fund aimed at supporting wildlife and recreation.

The Bureau of Land Management has identified 20.6 million acres of public land with wind potential and 19 million acres of public land with solar potential; however only 1.4 percent of wind capacity was sourced from public lands in 2012.

To contact Eric Lowe:

678-244-5043

[elowe@smeinc.com](mailto:elowe@smeinc.com)

To contact Ron Wallace:

404-362-2589

[ronald.wallace@dnr.state.ga.us](mailto:ronald.wallace@dnr.state.ga.us)