

# FLORIDA BEACON

**From the President's Desk...**  
**Amy Guilfoyle**



**Florida Association of  
Environmental Professionals**  
**Fall 2016**



A huge thank you goes out to the Southwest Chapter for hosting the 2016 FAEP Conference and Training symposium last month in Bonita Springs. The event was a complete success. For more information on the conference, see Elva Peppers and Arielle Poulos's articles on the following pages.

On behalf of the Southwest Chapter and all of FAEP, we would like to thank our sponsors from the 2016 FAEP Conference and Training Symposium!!

As directed by Governor Scott, and based on findings made by Secretary Steverson, FDEP adopted an emergency rule that establishes new requirements for public notification of pollution incidents. This emergency rule, effective September 26, 2016, will require the owner or operator of any installation, including a local government, to provide notification of incidents or discovery of pollution within 24 hours to the Department, local governments and the general public through the media.

The new rule applies regardless of whether the impacts of the pollution remain onsite or offsite. This will apply to any pollution affecting Florida's air or water resources, such as unauthorized discharges of treated and untreated wastewater and industrial wastewater releases.

The Department's webpage, <http://www.dep.state.fl.us/pollutionnotice/>, provides the emergency rule language, notification information, as well as several other helpful links, including answers to frequently asked questions (<http://www.dep.state.fl.us/pollutionnotice/Emergency-Rule-FAQs.pdf>).

If you have any additional questions regarding the emergency rule, refer to the webpage or contact: Stephanie Gudeman.

Office: 850-245-2048 [Stephanie.gudeman@dep.state.fl.us](mailto:Stephanie.gudeman@dep.state.fl.us)

Sincerely,

Amy L. Guilfoyle

FAEP President

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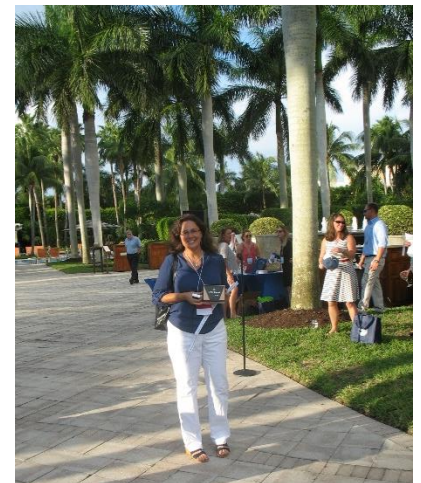
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# Review of the FAEP 2016 Annual Conference

By Elva Peppers, Tallahassee Chapter

Making the most of your membership in the FAEP is important. One of the great benefits of being a part of this organization is the annual conference. If you missed this year's event in Bonita Springs, you missed a really great conference. As a member of the host chapter for next year's conference, I attended this year's conference with eyes wide open to collect information on the aspects of the conference that we would want to incorporate and things that could be improved upon. Other reasons for attending included, supporting the organization, networking, and attending the seminars to learn about new methods and technology that I find both fascinating and beneficial to me professionally.

What were the highlights? The venue was absolutely fantastic. The staff, the facilities and the food were top notch. My favorites were the blueberry cobbler and the networking social. The cobbler was heaven in a bowl, with ice cream. The social was set up outside in the garden by the pool with some yummy appetizers and drinks. Meeting new people and catching up with those I have not seen in a while was great. For once, I did not have to explain what an environmental consultant does, I am sure you all get what I mean by that! A fun extra was the raffle, which attracted attendees to the social and created some buzz about the prizes. Good job Southwest Florida AEP and Hyatt Regency! Sometimes when I attend conferences, I find that I hear a presentation and leave with the feeling that the presenter didn't really get deep enough or maybe tried to cover too much and didn't really focus on digging down into the true topic. I feel like the FAEP conference has consistently been different in that regard. The topics are presented by top professionals in the field, including agency staff, attorneys, scientists and researchers. This year's speakers were very on point. Unfortunately, there were so many good topics under the three tracks, I had a hard time picking which one to attend. The tracks were divided into Innovation and Research, which touched on any aspect in the environmental field, Conservation and Restoration, which as a biologist, was where I spent most of my time, and Assessment and Remediation, for all those geologist-types. Good job Southwest Florida AEP! I will close with an invitation to the 2017 Conference to be held in Tallahassee and a challenge to make the most of all the wonderful opportunities the FAEP has to offer.



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# 2016 FAEP Conference and Training Symposium

By Arielle Poulos, Conference Co-Chair

This year's FAEP Conference and Training Symposium was held on September 22 & 23<sup>rd</sup> at the Hyatt Regency Coconut Point Resort and Spa, hosted by the Southwest Chapter. Over 130 attendees, representing each of the chapters, gathered to hear more than 35 presentations covering a range of topics across four tracks. The tracks were Conservation and Restoration; Innovation, Advancement and Research; Assessment and Remediation; and an Agency Update Panel.

Speakers came from all over the state as well as far as California. Attendees had the opportunity to learn about new techniques including restoration of shorelines, sea grasses, and mangroves as well as using fire to manage preserve areas in the uplands. Additionally, new techniques for environmental sampling, golf course redevelopment and assessment strategies were discussed.

The agencies represented included the Florida Department of Environmental Protection, South Florida Water Management District, U.S. Army Corps of Engineers, National Marine Fisheries Service, and Florida Fish and Wildlife Commission. Each agency provided an update on rule changes, policy changes, and the state of the agency, as well as answering questions from the attendees and working together to cross-reference any procedures to help streamline the permitting process.

The Conference was fortunate to have Phil Flood, SFWMD Regional Representative, as a lunchtime keynote speaker. Attendees were able to enjoy a delicious meal while hearing about the state of Lake Okeechobee, as well as the restoration of wetlands in and around the Lake.

In addition to the presentations, attendees had the opportunity to participate in several different field trips. These trips included a sunset trip to see local bats roosting in a nearby bridge and learn about their habitat, a tour of the Picayune Strand Restoration Project as part of the CERP program, a tour of The Conservancy of Southwest Florida, and a brief class to learn about the intricacies of wildlife photography.

To round out the Conference, after all of the presentations concluded on Thursday, a networking happy hour was hosted on the lawn of the resort with a view of the fountains and pools, as well as yard games, hammocks and incredible food and drink. Throughout the day, attendees had been purchasing raffle tickets for a variety of items that were raffled off at the happy hour. Over all the Conference was enjoyable and educational and the Southwest Chapter would like to thank all of the Sponsors, Speakers, all of the raffle donators, the FAEP, and especially the attendees for making the event a success!!



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## Salty snow could affect air pollution in the Arctic

In pictures, the Arctic appears pristine and timeless with its barren lands and icy landscape. In reality, the area is rapidly changing. Scientists are working to understand the chemistry behind these changes to better predict what could happen to the region in the future. One team reports in ACS' *Journal of Physical Chemistry A* that sea salt could play a larger role in the formation of local atmospheric pollutants than previously thought.



The Arctic's wintertime ice hit a record low this year, and its air is warming, according to NASA. Previous research has shown that pollutants, including gaseous nitrogen oxides and ozone, have at times been recorded at levels similar to those one would see in more populated areas. Nitrogen oxides are air pollutants that, in sunlight, lead to the formation of ozone, the main component in smog normally associated with cities. The gases can be processed in the atmosphere and be deposited on Earth as nitrates, which can get trapped in snow. In sunlight, snow can act as a reactor in which nitrates may be transformed back to nitrogen oxide gases. In the Arctic, sea ice and snow contain salt and other impurities that can possibly alter the efficiency of this process. James Donaldson, Karen Morenz and colleagues took a closer look at how salt and nitrate content in snow could affect the levels of nitrogen oxides in the air during sunny conditions.

The researchers tested lab-made snow containing nitrate alone or nitrate and salt. They found that under simulated sunlight, about 40 to 90 percent more nitrogen dioxide (NO<sub>2</sub>) was reformed from the snow with low levels of salt at environmentally relevant concentrations than snow with no salt. Researchers observed the greatest effect when they used realistic sea salt in the experiment. The results suggest that sea ice and salty snow, which previously have not been considered as factors in the balance of ozone-forming chemicals in the atmosphere, should be a part of future models.

Read more at the [American Chemical Society](#).

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## Coffee and Climate Change in Brazil

Coffee lovers, alert! A new [report](#) says that the world's coffee supply may be in danger owing to climate change. In the world's biggest coffee-producing nation, Brazil, the effects of warming temperatures are already being felt in some communities. You can see the effects in places like Naygney Assu's farm, tucked on a quiet hillside in Espirito Santo state in eastern Brazil. Walking over his coffee field is a noisy experience, because it's desiccated. The leaves from the plants are curled up all over the floor, in rust-colored piles. The plants themselves are completely denuded.



"We've had no rain since last December," Assu tells me in Portuguese, "and my well dried up. There was nothing we can do, except wait for rain." But the rain doesn't come.

In fact, it's been three years of drought here in Sao Gabriel da Palha. This region is part of Brazil's coffee belt. Farmers here have been growing robusta — a coffee bean used in espressos and instant coffee — since the 1950s. Assu says he doesn't know what to do. "To be honest, I don't see a future," he tells me.

"This year I haven't been able to pay my debts," he says. "I owe the bank, but look at my crop — I have no way to pay." He's lost 90 percent of his coffee crop. And he is not the only one. Production of robusta this year is down 30 percent in the state. "Coffee depends on a lot of water," says Perseu Perdoná, an agronomist with the local coffee cooperative. And coffee plants are already sensitive to temperature. "Climate change is happening," he tells me, "we can see it. Add to that deforestation, which means the ground can't retain water when it rains."

He fears that in the near future, unless something drastically changes, coffee will disappear from this region. "This is affecting the production of robusta," he tells me. But it's not just robusta. A new report from Australia's Climate Institute says coffee production worldwide is in danger because of climate change. It cites a study that says "hotter weather and changes in rainfall patterns are projected to cut the area suitable for coffee in half by 2050."

This could have a dramatic impact on the communities that depend on coffee production. Perdoná tells me families are already going hungry in Sao Gabriel da Palha. At the headquarters of the local coffee cooperative I am offered, naturally, a cup of coffee made from the beans of local producers.

Antonio Joaquim de Souza Neto, president of Cooabriel, tells me his family has long roots in the area and this is the worst drought in at least 80 years — basically, since anyone alive can remember. "The rivers have run dry," he says. "Even in the city, we have water rationing — one day we have water, one day we don't. We never expected this."

He brings out the records of 17 years of rainfall in the region. He says it used to rain on average 1,300 millimeters (51 inches) a year; in the last three years, that number has plunged to just over 400 mm (15.7 inches) a year. He says he went to the capital, Brasilia, to ask for help from the federal government, but none has been forthcoming. So farmers have been taking matters into their own hands.

We meet another coffee farm owner, Eliezer Jacob. He tells me his irrigation pond is at only 10 percent of capacity. Coffee is too difficult to maintain, he says, because it needs too much water. So he has been diversifying his crops to make ends meet. As his mother throws fertilizer on peppercorn plants, he tells me he is now growing a lot of things: cocoa, rubber, black pepper, pineapples, tomatoes, coconuts, watermelons, bananas, beans. While these crops also rely on water, they yield several harvests a year, providing a steady income. "If I hadn't done it, things would have gotten ugly," he says.

The bad news for coffee drinkers? He says he and others are moving out of the coffee business for good. "If I hadn't done it, things would have gotten ugly," he says.

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From National Public Radio



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## While global methane emissions are up, study says fossil fuels not the culprit

A new study from NOAA, the National Oceanic Atmospheric Administration, puts a new twist on a tricky question about the impact of increased oil and gas production on greenhouse gas emissions. Scientists have detected increased rates of methane emissions globally since 2007. That uptick corresponds to the rapid boom in U.S. shale gas and shale oil production, and some hypothesized that the two could be connected. But it turns out that the correlation may not necessarily be a cause.












The research published Wednesday in the journal Nature found that although previous methane emissions from fossil fuel production, which includes coal, oil and gas, were significantly underestimated, the overall atmospheric increases in methane is not due to oil and gas production. NOAA, which has been measuring methane in the atmosphere since 1984, says the global increase in methane could be coming from microbial sources including wetlands, rice paddies and agricultural livestock like cows. Methane is considered more potent a greenhouse gas than carbon dioxide because although it breaks down more quickly than CO<sub>2</sub>, it traps heat 28 times more effectively over the course of 100 years.

Researchers compiled the largest database yet on global methane, which produced a truer picture of the total number of methane molecules in the atmosphere, as well as a clearer view of where that methane originated. As a result, the researchers say they've identified more methane from oil and gas production than previously thought, an increase of 20 to 60 percent. But that's not enough to account for the global rise of methane in the atmosphere.

Continue [reading](#) at StateImpact Pennsylvania

## Improve your personal work environment

**Need a daily 5 minute meditation break at your desk?** Check out these meditation apps. Meditation is a term used for many forms of relaxation and is one of the best ways to combat stress and many health issues caused by or made worse by stress. Go [here](#) to see a list of some of the best meditation apps you can download and take with you anywhere. There are many choices of length of time, sounds and scenes from nature in these apps. Reviews from healthline.com.

<p>Buddhify</p>  <p>★★★★★</p>	 <p>★★★★★</p>	<p>Headspace</p>  <p>★★★★★</p>	<p>MINDBODY Connect</p>  <p>★★★★☆</p>
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## Upcoming Conferences and Workshops

Event	Date	Place
Petroleum Restoration Program Symposium and Tank Compliance	October 26, 2016	Daytona Beach Shores, FL
Florida Section A&WMA 52 <sup>nd</sup> Annual Conference	October 26 -27, 2016	Tampa, FL
Clean Gulf	November 1 – 3, 2016	Tampa, FL
Railroad Environmental Conference	November 1 – 2, 2016	Champaign, IL
Petroleum Restoration Program public meeting	November 3, 2016	Tallahassee, FL
International Petroleum Environmental Consortium	November 8 – 10, 2016	New Orleans, LA
SAME – Small Business Conference for Construction & Env.	November 14 – 16, 2016	Atlanta, GA
American Water Resources Association	November 14 – 17, 2016	Orlando, FL
Georgia Association of Water Professionals	November 15 – 16, 2016	Dalton, GA
Society of Military Engineers, Small Business Conference	November 16 – 18, 2016	Atlanta, GA
FLERA Winter Symposium	December 3 – 4, 2016	St. Petersburg, FL
A Community of Ecosystem Services	December 5 – 9, 2016	Jacksonville, FL
Society of Military Engineers – Industry Day	December 9, 2016	Jacksonville, FL
Restore America’s Estuaries, 8 <sup>th</sup> National Summit	December 10 – 5, 2016	New Orleans, LA
Battelle 9 <sup>th</sup> Conference on Remediation of Contaminated Sediments	January 9 – 12, 2017	New Orleans, LA
National Council for Science and the Environment	January 24 – 26, 2017	Washington, DC
Environmental Information Association Nat’l Conference	March 25 – 29, 2017	Orlando, FL
National Association of Environmental Professionals	March 27 – 30, 2017	Durham, NC
Professional Geologists, Innovative Remediation Technologies Conf.	April 18 – 19, 2017	Kennesaw, GA
Battelle Symposium - Bioremediation and Sustainable Env. Technologies	Mat 22 – 25, 2017	Miami, FL
World Energy Engineering Conference	September 27 – 29, 2017	Atlanta, GA
American Water Resources Association Annual Conference	November 5 – 9, 2017	Portland, OR
National Brownfield Training Conference	December 5 -7, 2017	Pittsburgh, PA

FAEP shares information about conferences pertaining to the environmental professions. FAEP does not endorse any of the referenced conferences.

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## The Psychology Behind Climate Change Denial

Climate change is a serious threat to humans, animals, and the earth's ecosystems. Nevertheless, effective climate action has been delayed, partly because some still deny that there is a problem. In a new thesis in psychology, Kirsti Jylhä at Uppsala University has studied the psychology behind climate change denial. The results show that individuals who accept hierarchical power structures tend to a larger extent deny the problem.

In the scientific community there is a strong consensus that humans have significantly affected the climate and that we are facing serious challenges. But there is a lot of misinformation about climate change in circulation, which to a large part is created and distributed by organized campaigns with the aim of postponing measures that could combat climate change. And there are people who are more prone than others to trust this misinformation.

Previous research has consistently shown that it is more common among politically conservative individuals to deny climate change. In her thesis, Kirsti Jylhä has investigated this further and in more detail. Her studies included ideological and personality variables which correlate with political ideology, and tested if those variables also correlate with climate change denial. [Read full article.](#)

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