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**August/September 2018**

Volume 40, Number 4

**ACF water war update 5**

In an opinion issued in late June, the U.S. Supreme Court punted, directing Special Master Ralph Lancaster Jr. to hold more hearings on the decades-long Florida-Georgia battle over the apportionment of water flow in the Apalachicola-Chattahoochee-Flint river basin.

**Air quality lawsuit 8**

The Center for Biological Diversity, the Sierra Club and the Center for Environmental Health filed suit against the U.S. Environmental Protection Agency claiming that they failed to take steps to make sure that Florida and other places across the country are effectively dealing with sulfur dioxide pollution.

**ERP program update 10**

The Florida Department of Environmental Protection recently updated its Environmental Resource Permitting rule.

**PFOA, PFOS in the news 12,13**

After the U.S. Department of Defense published results of its nationwide survey of perfluorinated compounds in groundwater at U.S. military bases, lawsuits were filed, sites were assessed further and potential cancer clusters were identified—all in Florida.

**Water use survey 16**

The U.S.' total water use from all sources across the country dropped to its lowest levels since 1970, according to the U.S. Geological Survey.

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**Got a story lead?**

Got an idea for a story? Like to submit a column for consideration? Fire when ready. And don't forget to fill us in on your organization's new people and programs, projects and technologies—anything of interest to environmental professionals in Florida. Send to P.O. Box 2175, Goldenrod, FL 32733. Call us at (407) 671-7777; fax us at (321) 972-8937, or email mreast@enviro-net.com.

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**Enviro advocates score huge win on Amendment 1**

By **BLANCHE HARDY, PG**

In mid-June, Leon County Circuit Judge Charles Dodson delivered a striking victory to Florida voters and environmental advocates championing Amendment 1.

"The ruling is one of the most important victories for conservation in Florida in years," said Alisa Coe, Earthjustice's litigating attorney in Tallahassee. "Setting aside billions of dollars to buy and maintain new public lands will have an extraordinary impact on the future of our state."

"There are many special pieces of land that should be protected and this amendment will allow that."

Protected land provides many benefits, including filtering drinking water, sheltering endangered species, and providing recreational opportunities, she said.

Seventy-five percent of Florida voters approved Amendment 1, the Land and Water Acquisition Amendment, to the state constitution in 2014.

Millions of Floridians elected to dedicate 33 percent of revenues from the tax on real-estate documentary stamps to the Land Acquisition Trust Fund for the purchase, restoration and management of environmentally sensitive lands.

Florida has historically used the doc-

**WIN**  
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**Florida's environmental laboratories ride strong economic wave**

By **ROY LAUGHLIN**

Florida's environmental laboratory industry has been solid in 2018, according to laboratory owner and managers. "Stable" is a shared characterization from many lab officials.

Like related professional environmental service providers, Florida's labs are riding the strong economic wave.

Comments from interviews with lab officials across the state paint a picture of an industry adjusting to financial, regulatory and political changes, and meeting two primary challenges—continued low pricing and high customer expectations.

Lab owners and managers we spoke with voiced the greatest concern about the low prices. The low rates factor into their decisions to hire staff and upgrade lab technology.

Competition within the industry is the primary cause of the continued low-price structure.

According to two laboratory insiders, larger labs growing through consolidation have kept certain testing category prices at low levels. And the rest of the labs are influenced by it.

But regardless of company size, managing in a marketplace expecting continued low prices affects all the industry players.

Dr. Daniel Lashbrook, laboratory manager at Advanced Environmental Laboratories Inc. in Jacksonville, noted



Photo by Daniel Lashbrook, Advanced Environmental Laboratories Inc.

Advanced Environmental Laboratory's technical director and laboratory manager inspects a flow injection analyzer to evaluate continuous production capabilities. The demand for commercial environmental lab services in Florida has been strong again this year. The "state of the lab business" story is below.

that, internally, laboratories need to control costs and optimize efficiencies to "protect the bottom line from price erosion."

The consolidation of smaller labs over the past decade was a result of the low prices and may have helped extend the price structure into the present.

All respondents mentioned the need to maintain excellent customer service—in response to high customer expectations—as critical to their business success.

Taking care of the natural ups and downs to deliver the high level of service that clients expect is crucial, said

Jefferson Flower, PhD, president of Flowers Chemical Laboratories Inc. in Altamonte Springs.

Carol Kreitner, PhD, owner and manager of Professional Environmental Testing and Consulting in Davie, said she draws clients predominantly from Southeast Florida who demand technically competent results with a high level of customer service.

"With low price comes low quality," she said. "I'm not going there. My clients like the quality."

**LABS**  
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*An environmental legend passes:*

**Nathaniel Reed, 84**

**Staff report**

Nathaniel Pryor Reed died in early July after an accidental fall while salmon fishing on Grand Cascapedia River in Quebec, Canada. He was 84.

Reed, who served in Washington, DC, as President Richard Nixon's deputy secretary of the Department of the Interior, worked closely with John Ehrlichman, Nixon's chief of staff, and Russell Train, Nixon's chairman of the White House Coun-

cil on Environmental Quality.

Working in concert with them, Reed played a pivotal role in all the major environmental laws and policies of the early 1970s, including the Clean Water Act, the National Environmental Policy Act, the Marine Mammal Protection Act, the Endangered Species Convention, and the DDT ban.

In addition, he helped establish

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# Pruitt memo directs EPA staff to abandon Section 404 permit oversight authority

## Staff report

In a staff memo issued the end of June, a few days before his resignation, U.S. Environmental Protection Agency Administrator Scott Pruitt directed staff to develop proposed rulemaking under the Clean Water Act to modify their authority over Section 404 permit activity.

Section 404 permits allow dredge and fill activities in wetlands and on submerged lands.

Pruitt proposed to eliminate both the

EPA's preemptive and retroactive veto authority over Clean Water Act Section 404 permits.

Since 1980, the agency has issued only 13 Section 404 vetoes. The most recent occurred during the Obama years. One of those, in 2011, rejected permits for mountaintop coal removal in West Virginia several years after the EPA approved them.

In 2014, the agency preemptively proposed restrictions on a mining project, the Pebble Mine project in Alaska, before the mining company formally submitted its

permit application.

The EPA based its restrictions on a watershed assessment that recommended protecting Bristol Bay from any mining.

Pruitt proposed changes in the Section 404 process at the regional levels as well. The memo proposed requiring EPA headquarter approval before regional administrators could initiate a Section 404 process.

Regional administrators would be required to review the findings of an environmental assessment or an environmental impact statement prepared by the U.S. Army Corps of Engineers or state prior to preparing and publishing a notice of a proposed determination.

Finally, the agency would be required to publish and seek public comment on a final determination before such a determination takes effect.

Currently, the EPA publicizes an intention to propose or deny a permit, and accepts public comment prior to formally issuing a permit.

The practical effect of Pruitt's proposed change could be months or years in the future.

The U.S. Court of Appeals for the District of Columbia Circuit upheld the EPA's retroactive veto authority in 2014, as did the U.S. Supreme Court when it declined to review the circuit court's decision upon appeal.

Any new rule that EPA staff prepares to relinquish its authority may have to thread a needle with an impossibly small eye. No U.S. law or judicially accepted principle requires the U.S. government to improve (or even consider a standard for) predictability or regulatory certainty.

Pruitt's memo preceded a formal submission of a new Pebble Mine permit request, which at the earliest, could be submitted in 2019.

**Florida beach monitoring grant.** In June, EPA Region 4 announced that Florida would receive \$432,000 from the agency's Beaches Environmental Assessment and Coastal Health, or BEACH, grant program.

The grant provides funding for the Florida Department of Health to monitor bacteria in saltwater and freshwater swimming beaches. If pathogenic bacteria levels are too high, the agency initiates public advisories.

Recent beach closures in Florida due to microbial contamination are neither frequent nor widespread. For example, in mid-May, Sarasota County closed swimming beaches at Venice Beach, Venice

Fishing Pier Beach, Manasota Key Beach and Turtle Beach for a day because of poor water quality.

The BEACH Program disbursed \$9,331,000 in 2018. Only California, with \$425,000, and Florida received more than \$400,000.

**EPA cost-benefit calculations.** In June, the EPA invited comments on advanced notice of proposed rulemaking, proposing to modify how it determines costs and benefits to justify regulations. Such calculations are required by multiple statutes for EPA rulemaking.

In its press release announcing the notice, the agency said that "calculation of costs and benefits ... has been inconsistent," creating a "risk of uncertainty and confusion." The EPA proposed a rule that will "codify common-sense, best practices for cost-benefit analysis in rulemaking."

The proposed rulemaking appears to be aimed at specific cost-benefit calculations for Obama-era rules to reduce CO2 and mercury emissions from power plants that burn coal.

The mercury rule's primary effect was to reduce mercury and particulate matter emitted by coal-burning plants.

In its cost-benefit analysis, the EPA included both the benefit of avoided mercury toxicity and the ancillary benefits of reduced particulate matter exposure co-occurring with mercury reduction.

It calculated an overall financial benefit of \$36 per ton of carbon dioxide emitted as the entire social benefit of the rule.

The EPA said proposed calculation changes would have reduced the social benefit figure to \$5 per ton by focusing only on the mercury reductions.

The immediate justification is essential to the EPA's efforts to repeal the Clean Power Plan. In its proposal to repeal, it eliminated cost-benefit analysis for the benefit of reducing public exposure to soot emissions from coal-burning plants. Public health scientists regard soot particles as a major public health risk.

In its notice requesting public comment on rule revision, the EPA said that industry groups had requested the changes in cost-benefit analysis as part of "a myriad of regulatory reform issues" that Pruitt said the EPA would undertake.

The agency accepted public comments until July 13.

**EPA Risk Management Program rule revision.** In 1996, EPA established its Risk Management Program to establish procedures that help prevent and mitigate the consequences of accidental regulated chemical and substance releases from facilities where they are stored or used.

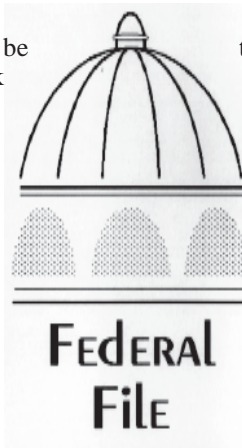
In 2017, the Obama administration proposed to expand the rule to address potential security risks, and to improve emergency planning and public information when accidents occurred.

In January, 2017, the Obama administration published the amended rule. Since then, the Trump administration has taken no further action on it.

In May, EPA released a proposed rule revision, formally known as the Proposed Risk Management Program Reconsideration Rule.

According to an agency press release, the proposed rule would "rescind or modify certain provisions of the RMP amendments rule ... to reduce unnecessary regulatory burdens while maintaining consistency with the Occupational Safety and Health Administration's process safety management standard."

The proposal would also revise compliance dates for modified RMP requirements to allow the EPA to make programmatic changes and give regulated facili-



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## Gulf Power seeks permit renewal for unlined landfill

### Staff report

The Florida Department of Environmental Protection issued a consent order and \$32,000 fine to Gulf Power Co. earlier this year for the release of contaminants from its Christ Ash Landfill 2, a coal ash landfill on Governors Island.

The landfill is across the Escambia River from Gulf Power's Christ Plant and close to the University of West Florida in Pensacola.

The power company is now in the process of renewing its federal landfill permit. Environmental advocates want to ensure that the new permit will protect the area from additional pollutant releases.

The coal ash landfill began operations in the 1970s. Analysis conducted by Gulf Power indicated that the unlined landfill may have been a source of contamination to the Escambia River.

The utility issued notice of establishing a groundwater monitoring program to assess the site earlier this year.

Gulf Power's formal notice indicated that the assessment program was initiated based on statistically significant increases of certain constituents and was documented in a report that was placed in the facility's operating record.

The condition of the existing landfill cap remains questionable. DEP is requiring Gulf Power to create a four-year plan to address potential contamination risks at the site.

**Port Canaveral projects funded.** Port Canaveral harbor projects are slated to receive priority federal funding from the U.S. Army Corps of Engineers this year.

The corps plans to award \$16.23 million to the port for two projects. The Canaveral Harbor project and the Canaveral Sand Bypass project will receive \$14,760,000 and \$1,470,000, respectively, for maintenance of the port's harbor and the Canaveral locks.

The bypass project is considered critical for port navigation. The proposed harbor sand bypass and jetty improvements project will prevent infill of the channel through the jetties and migration of sand around the tip of the north jetty.

"The Canaveral Harbor Sand Bypass is important to our local economy, our space program and our national security," said U.S. Rep. Bill Posey, R-FL. "Timely completion of the sand bypass will help safeguard our local maritime commerce by ensuring that ocean vessels can continue to navigate through Canaveral Harbor."

The corps must schedule the bypass project every six years in compliance with a 2002 U.S. Court of Federal Claims agreement.

The bypass project is overdue and hasn't been funded by the corps since 2009. The corps anticipates an additional \$4 million in disaster funds to address shoaling caused by Hurricanes Matthew and Irma.

**ECUA assumes operation of MRF.** The Emerald Coast Utilities Authority assumed operation of the 53,000-square-foot Beulah, FL, materials recycling facility in May.

The \$10.6 million facility began operations in September, 2016, under a contracted operator. ECUA delivered notice in April that the authority was terminating that operating contract.

ECUA contracts with a recycling broker to provide marketing services for the recyclable commodities generated at the MRF.

The facility functions as a regional recycling processor, providing services to a dozen municipalities and other entities along the Emerald Coast.

Cooperation between ECUA and Escambia County provides the facility the capacity to recycle up to 55,000 tons of materials per year.

"Building this partnership has been instrumental in eliminating our reliance on outside contractors for the processing of this region's recycling effort," said Steve

Sorrell, executive director of authority. "And we can focus on what's really important—high-quality, clean commodities."

**Solar panels at St. Pete Pier.** The St. Petersburg City Council recently authorized Mayor Rick Kriseman to execute a lease agreement with Duke Energy for the installation of a solar photovoltaic canopy over a portion of the Pelican Parking Lot in the new Pier District.

The canopy will provide shaded parking for approximately 100 spaces.

The project is estimated to cost \$2 million and will be paid for and owned by Duke Energy. Duke will also design, permit, construct and maintain the system throughout its lifetime.

The canopy's solar panels will produce between 400 and 650 kilowatts of energy, roughly the energy needed to power 40 homes per year.

The city said the project will reduce greenhouse gas emissions by at least 400 metric tons per year—equivalent to taking more than 100 cars off the road annually or providing over 400 acres of forest to absorb other harmful emissions.

The solar canopy project will help the

city to eventually transition to 100 percent clean energy and will support the goal of creating a sustainable Pier District.

The project will be tied to Education Center programming and will generate lease income to offset operations costs.

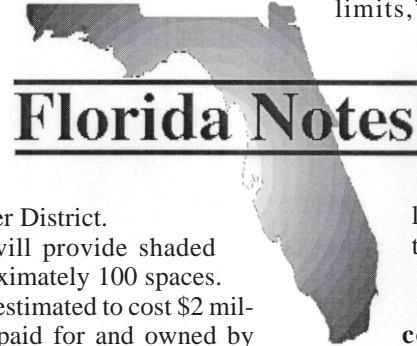
"The city appreciates the opportunity to collaborate with Duke Energy in providing renewable energy within the city limits," said Sharon Wright, St.

Petersburg's sustainability and resiliency director. "This process has taught us a lot, and we look forward to building on the wins with our energy provider to lead the region in its transition to 100 percent clean energy."

**Seminole County golf course cleanup.** Seminole County residents in the Rolling Hills neighborhood proved once again that Floridian's are passionate about the environment and the quality of life it provides.

Residents there agreed to have their property assessed an additional \$1,000 by the county to provide funding to clean up and create a park on the closed Rolling Hills Country Club golf course.

The golf course is in the Sanlando Springs area between Interstate 4 and Palm



## Florida Notes

**NOTES**  
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# Initial phase of construction begins on Ocala groundwater recharge park

## Staff report

In June, the city of Ocala began construction on the first phase of a groundwater recharge project.

The project will excavate three ponds that will filter reclaimed water from Ocala's wastewater treatment plants before it percolates into the Floridan Aquifer.

The 55-acre site where the three ponds are being constructed will be developed into a park with 2.5 miles of trails and a boardwalk system.

Petticoat-Shmitt Civil Contractors Inc. will construct the facility at a cost of \$6 million.

The St. Johns River Water Management District contributed \$2 million in grant funding to support the recharge park.

When completed, the park will receive an average daily flow of 5 million gallons.

**Water farm reducing runoff to St. Lucie Estuary.** Record rains in the month of May boosted the use of the Caulkins Water Farm in Martin County to capacity.

The 3,200-acre former citrus grove adjacent to the C-44 Canal near Indiantown has been withdrawing 150 acre-feet of water a day from the canal. The withdrawal

balances water lost through percolation and evaporation.

The water farm can store more than 5,500 acre-feet of local basin runoff on top of 6,000 acre-feet of direct rainfall to the site.

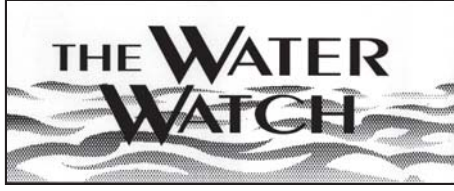
According to a report in *Okeechobee News*, during the first week of June, releases from Lake Okeechobee to the C-44 Canal at Port Myakka ranged from 794 to 1,309 cubic feet per second. This corresponds to 1,575–2,596 acre-feet per day.

In 2016, the South Florida Water Management District paid about \$7,500,000 for Caulkins Water Farm Expansion Project construction. In addition, it pays \$5,500,000 annually for environmental services there.

Because of recent rains that raised Lake Okeechobee water levels by approximately a foot, the district began releasing water to the St. Lucie River, a practice that in the recent past has produced nuisance algal blooms in the estuary.

The Caulkins water farm is part of the district's Dispersed Water Management program, which has a total storage capacity of 54,000 acre-feet.

Since the heavy rains started, the district has used all of its available dispersed water management capacity to reduce flows—but too little to prevent algal blooms in the Caloosahatchee River in July.



## USF sewage recycling project.

Faculty and students at the University of South

Florida, led by Daniel Yeh, PhD, PE, BCEE, associate professor of civil and environmental engineering, have developed a wastewater treatment system utilizing a filtration membrane and microorganisms to break down biological sewage wastes to simple, recyclable organic and inorganic substances.

The USF group calls its system the NEWgenerator. The researchers have functioning prototypes in use in India and South Africa.

NASA recently funded a one-year seed grant to the USF researchers to develop a sewage waste recycling and energy/nutrient extraction system for use on Mars. NASA tasked the researchers to use NEWgenerator components and processes in a more compact design suitable for use in space.

In June, USF researchers began work at the Kennedy Space Center to adapt their technology.

If the initial investigation meets its goals, technology development could continue for several years to develop the NEWgenerator so it meets NASA's requirements for high performance, reliability and safety.

Graduate Student Talon Bullard will conduct the prototype development for his masters thesis.

At some future point, the space-ready NEWgenerator will have to be tested in zero gravity for a prolonged period.

**Lido Key beach project permit.** In late June, Florida Department of Environmental Protection Secretary Noah Valenstein issued a final order approving a permit for the Big Pass dredging project in Sarasota County.

The order permits up to 1.3 million cubic yards of sand to be dredged from Big Pass and used for a Lido Key beach renourishment project.

DEP approved the dredging project in

2016, but opposition from two Siesta Key groups resulted in a case before the Florida Department of Administrative Hearings.

The decision in that case favored the project, not its opponents.

Valenstein's final order for approval follows the administrative judge's recommendations with two exceptions characterized as "minor" by a local news outlet.

One of those modifications is to prohibit dredging in two segments of Big Pass during April through September to protect spotted sea trout spawning.

The week before Valenstein issued his final order, the U.S. Army Corps of Engineers announced that it had allocated \$13.5 million for the project. The remainder of the projected \$22 million price tag will be paid by the local governments.

## Harbor Branch foundation funds 2019 projects.

The Harbor Branch Oceanographic Institute Foundation budgeted \$1,370,000 for fiscal year 2019 to support projects at the Florida Atlantic University Harbor Branch Oceanographic Institute in Fort Pierce.

The award supports several different projects.

The first award of \$650,000 will establish the Florida Center for Coastal and Human Health. The center will conduct integrated research of biological, physical, chemical, genomic and toxicity of harmful algal blooms in the Indian River ecosystem.

The project will develop ecosystem-based models to help understand ecological shifts mediated by harmful algal blooms.

The effects on human health of those shifts will be the ultimate goal of the research. Up to 20 HBOI principal investigators will participate in the project along with postgraduate students and lab technicians.

A second award of \$520,000 will promote faculty recruitment, retention and research excellence. It will supply up to 20 percent salary support for the general budget of the institution.

Another \$200,000 will establish the Bridge Funds Pool to support institute faculty. This funding will fill gaps between contract support, and prevent the loss of skilled staff and productive research during any funding gaps while faculty seeks extramural funding to support ongoing work.

**PCB purchases land for new wastewater plant.** In mid-June, Panama City Beach city council members approved an agreement to purchase 40 acres of land from the St. Joe Co. for a new wastewater treatment facility.

The purchase agreement covers 30 acres of land and 10 acres of wetlands at a cost of \$23,700 per acre of land and \$3,000 per wetland acre. The city will pay for the land from cash reserves.

The land purchases are part of a long-term wastewater treatment capacity upgrade for Panama City Beach's utilities department, still five or six years in the future.

The city intends to build a facility to handle up to 12 million gallons per day. In the interim, the city will improve infrastructure at the site to accommodate the planned wastewater treatment plant.

**Sarasota County treatment plant.** In late May, West Villages Development began construction of a wastewater treatment plant in southern Sarasota County.

The plant, expected to cost \$43 million, is slated to open in January, 2020, and treat two million gallons per day of wastewater from about 4,000 homes.

The new plant will also produce reclaimed water for landscape irrigation.

The city of North Port will operate the plant. Garney Construction is the wastewater treatment plant's construction contractor.

**WATCH**  
Continued on Page 5



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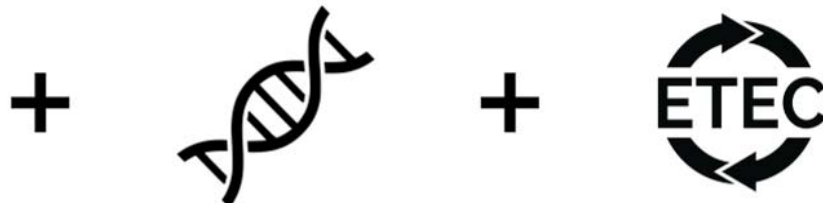
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# Supreme Court sends Florida-Georgia ACF water dispute back to special master

By **BLANCHE HARDY, PG**

In a 5-4 opinion issued in late June, the U.S. Supreme Court directed Special Master Ralph Lancaster Jr. to conduct additional legal proceedings in the decades-long Florida-Georgia water war over apportionment of water flow in the interstate Apalachicola-Chattahoochee-Flint river basin.

Justice Stephen Breyer delivered the majority opinion of the court.

"In light of our examination of the report and relevant portions of the record, we remand the case to the (special) master for further findings and such further proceedings as the master believes helpful," Breyer wrote.

In other words, Florida, Georgia and

## **WATCH** From Page 4

**Key Largo plant improvements.** In late May, Key Largo Wastewater Treatment District commissioners approved \$1.2 million for capital improvement projects at the district's main wastewater treatment plant.

It will fund Reynolds Construction's bid for headworks bypass piping, replacing corroded pipes and two pressurized tanks, and constructing a building to bridge two treatment tanks.

The funding came from a \$3.33 million Florida Department of Environmental Protection stewardship grant earmarked for capital improvement projects.

Part of that funding, about \$92,000, will pay for a shade cover over the plant's chlorine contact basin.

**Eastpoint to upgrade wells.** The city of Eastpoint in Franklin County received a grant of about \$343,152 from the Northwest Florida Water Management District to underwrite replacement of two coastal potable water wells.

The wells' water had experienced increased chloride content indicating some level of saltwater intrusion.

The well replacement project began almost 15 years ago, when the city drilled two replacement wells inland to supply potable water.

The most recent funding from the NFWFMD will add a pump, controls and a backup generator.

The funding will also pay for a transmission line with connections to allow Eastpoint to fully abandon its two coastal wells and shift to using the two inland wells as its primary potable water source.

The city provided \$39,600 in local matching funds for a project that cost \$382,733.

**SWFWMD Regulation Division receives award.** The SWFWMD's Regulation Division received two awards from the Florida Sterling Council that recognized excellence in business management.

Michelle Maxey, regulatory support bureau chief, received the Examiner Excellence Award. It is awarded to one examiner who demonstrates extraordinary service to the Florida Sterling Council and its examiner corps.

The award cited her efforts to bring management training back to the water management district and her division, and to improve the division's performance through the Sterling Explorer Assessment in 2017.

The district's Regulation Division also received an award for completing the Sterling Explorer Assessment, a leadership-driven management assessment based on Sterling/Baldrige criteria of high performance.

The assessment focuses on an organization's management capabilities in categories including leadership, strategy, customers, measurement, analysis, knowledge management, workforce and operations as they improve results.

The Florida Sterling Council, a public-private not-for-profit corporation, is supported by the Executive Office of the Governor. It was established in 1992.

the special master have been ordered back to the legal drawing board by the judges.

Prior to Supreme Court consideration, the special master conducted a lengthy proceeding, frequently recommending to representatives of both states that it would be in their best interests to negotiate a solution to the issue, before finally recommending that the court dismiss Florida's complaint.

During 18 months of discovery, the parties produced 7.2 million pages of documents.

In February, 2017, Special Master Lancaster found that the state of Florida failed to present clear and convincing evidence that its injuries could be addressed by placing a limit on Georgia's upstream water consumption without also binding the U.S. Army Corps of Engineers to the cap.

The corps controls four reservoirs and water control structures including five dams in the basin.

"I have concluded that there is a single, discrete issue that resolves this case: even assuming that Florida has sustained injury

as a result of unreasonable upstream water use by Georgia, can Florida's injury effectively be redressed by limiting Georgia's consumptive use of water from the basin without a decree binding the corps?" wrote Lancaster.

"I conclude that Florida has not proven that its injury can be remedied without such a decree. The evidence does not provide sufficient certainty that an effective remedy is available without the presence of the corps as a party in this case," he wrote.

Florida, thereafter, filed exceptions to the special master's report.

The Supreme Court recognized that Lancaster's recommendation is based on a single issue—whether Florida met its initial burden in respect to "redressability."

Justice Breyer wrote that "we do not agree with the dissent's view that the master applied the 'ordinary balance-of-harms test' that our equitable apportionment cases require," later adding that "the dissent's assertion that 'the balance of harms cannot tip in Florida's favor' is, at best, premature."

"We consequently do not dismiss this case," stated the court's majority final determination. "Rather, we remand the case to the special master for further proceedings consistent with this opinion."

Justice Clarence Thomas provided the dissenting opinion joined by Justices Samuel Alito, Elena Kagan and John Gorsuch.

Thomas stated that the majority opinion would fundamentally transform equitable-apportionment jurisprudence.

"It will require states to litigate (and this court to resolve) a host of complex factual questions, even where the state seeking the apportionment is obviously not entitled to relief because it cannot show an appreciable benefit—a requirement that Florida agrees is necessary for it to prevail," Thomas wrote.

"Even if the court is correct that the special master denied Florida relief for some reason other than the merits, there is no reason to send this case back for a do-over," he concluded. "As the court acknowledges, 'the ultimate responsibility for deciding what are correct findings of fact remains with us.'"

The ball is now back in Special Master Lancaster's court.

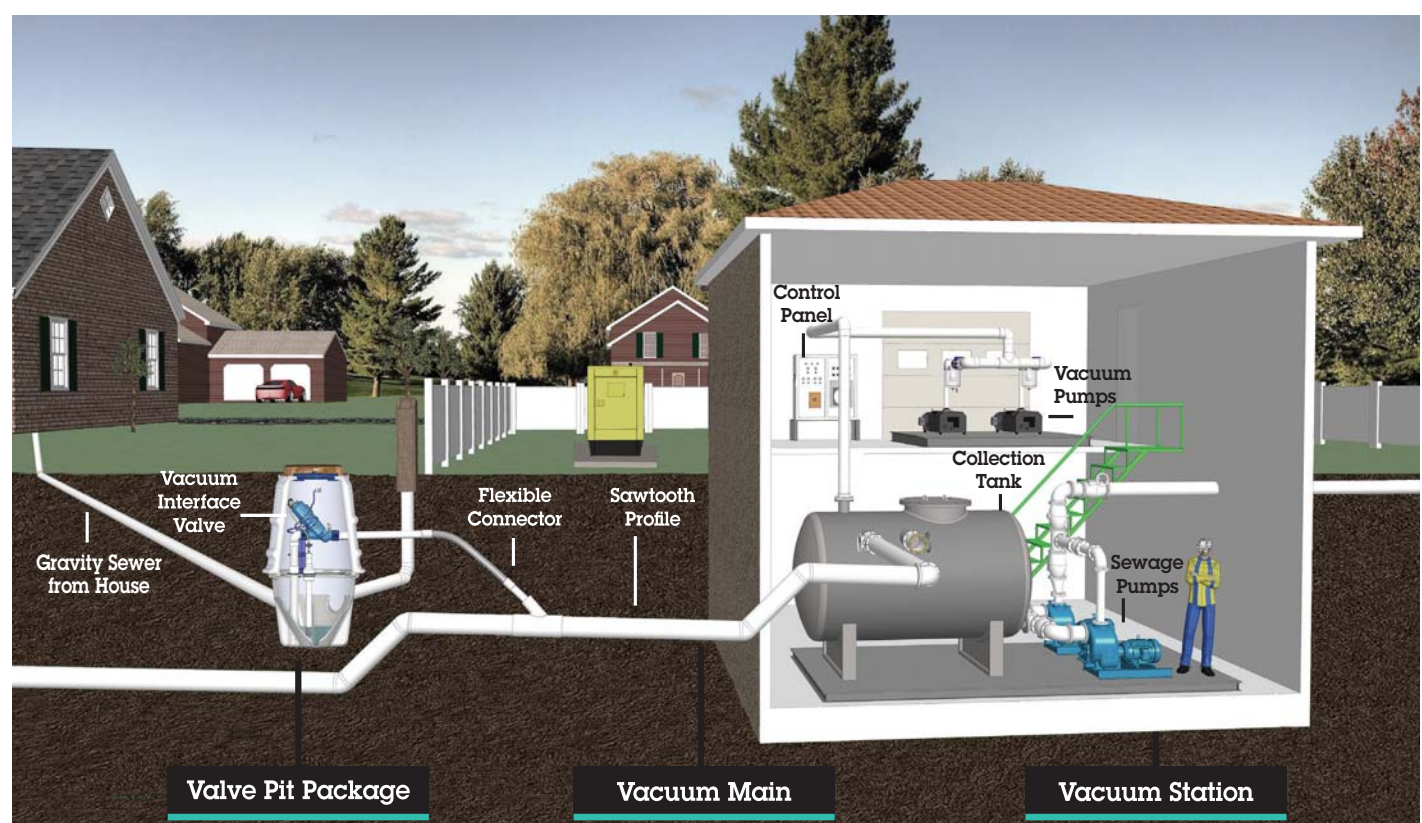


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# Environmental Laboratories Serving Florida - 2018

Continued on next page

Lab name and contact information	1) Capabilities/specialties, 2) Sample types, 3) Personnel info, 4) State of incorporation	1) Certs., 2) Add. capabilities, 3) Years in bus., 4) Other locations
<b>Advanced Environmental Laboratories Inc.</b> 6681 Southpoint Parkway Jacksonville, FL 32216 (904) 363-9350 • Fax: (904) 363-9354 Walter Kronz, Vice President wkronz@aellab.com www.aellab.com	1) Seven labs across Florida providing a full range of inorganic and organic testing. In-house and in Florida analysis of EPH, VPH, low level mercury and dissolved gases by RSK-175. Ability to run FL-PRO and PAHs in water from one 250 ml bottle. 2) Drinking water, groundwater, wastewater, surface water, soil, sediment, industrial waste, hazardous waste and air 3) Total: 135                      Engineers/Scientists: 95                      Technicians: 30 4) FL	1) TNI/NELAP, DoD ELAP and ISO 17025 2) SELECT AEL software enabling you to compare lab results to FDEP 62-777 limits, and generate FDEP petroleum summary forms and benzo(a)pyrene conversion tables. Various deliverables including CLP reports, ADR, EQUIS and ADaPT EDDs. Permit to import foreign soils. Courier services throughout Florida. 3) 24 years 4) Altamonte Springs, Fort Myers, Gainesville, Miramar, Tallahassee, Tampa
<b>ALS</b> 9143 Philips Hwy., Suite 200 Jacksonville, FL 32256 (904) 739-2277 • Fax: (904) 739-2011 Donna Jackson, Technical Sales Representative donna.jackson@alsglobal.com www.alsglobal.com	1) Environmental testing, NPDES, RCRA, CERCLA, process control, product certification, field sampling, customized electronic data deliverables, CLP like deliverables 2) All matrixes 3) Total: 31 (Jax)                      Engineers/Scientists: 14                      Technicians: 17 4) TX	1) NELAC, DoD ELAP, most SE states 2) Project review and validation, data reviews, method development, information (data) management consulting 3) 30 years
<b>Benchmark EnviroAnalytical Inc.</b> 1711 12th St. East Palmetto, FL 34221 (941) 723-9986 • Fax: (941) 723-6061 Dr. Dale Dixon, Laboratory Director dale.dixon@benchmark.net www.benchmark.com	1) Full analytical and sampling services are provided for government agencies, industrial operations and engineering firms 2) Surface water, marine water, groundwater, drinking water, wastewater, sediment and soil 3) Total: 31                      Engineers/Scientists: 8                      Technicians: 14 4) FL	1) NELAP, MBE, DBE, SBE 2) Courier, field sampling, DIEL studies, project management, custom spreadsheet reporting, ADaPT, STORET and WIN reporting 3) 26 years
<b>Certified Compliance Laboratories Inc.</b> <b>dba XENCO Laboratories</b> 1412 Tech Blvd. Tampa, FL 33619 (813) 620-2000 Eduardo Builes, PhD, CEO eduardob@ftsanalytical.com www.ftsanalytical.com	1) Analytical testing services 2) Groundwater, wastewater, drinking water, surgace water, soil, hazardous waste and air. 3) Total: 122                      Engineers/Scientists: 57                      Technicians: 50 4) TX	1) NELAP, NVLAP, FL DOH, MBE, DBE, SBE 2) Sampling capabilities. ADaPT and DEP EDD with final reports in 5-7 days TAT 3) 28 years 4) XENCO has labs in Tampa and Lakeland, with service centers in Tallahassee and South Florida.
<b>Flowers Chemical Laboratories Inc.</b> PO Box 150597 Altamonte Springs, FL 32701-0597 (407) 339-5984 • Fax (407) 260-6110 John W. Lindsey, Jr., water/ww analytical June Flowers, environmental analytical Lew Denny, North Florida and Georgia www.flowerslabs.com	1) Full service laboratory analyzing environmental and drinking water parameters. Providing defendable data in organics, inorganics, metals, microbiology and nutrients. ADaPT reporting, field and courier services. PhD chemist on staff. Now certified for Legionella pneumophila in drinking and non-potable water. 2) All water matrices, soil, sediment, waste, oil and SPLP/TCLP 3) Total: 50                      Engineers/Scientists: 36                      Technicians: 14 4) FL	1) Florida DOH NELAC in drinking water, non-potable water, solid and chemical materials categories. 2) EDDs, microbiologicals for routine water and wastewater at four labs in Florida 3) 61 years 4) Port St. Lucie, Madison, Marathon in the Florida Keys
<b>Jupiter Environmental Laboratories Inc.</b> 150 Old Dixie Highway Jupiter, FL 33458 (561) 575-0030 • Fax (561) 575-4118 Kacia Baldwin, Client Services www.jupiterlabs.com	1) Full service lab specializing in advanced analytical analysis for both standard EPA methods and emerging research and development methods. Latest GC QQQ & LC MS MS instrumentation for detection of unusual compounds including Sucralose and Acetaminophen, hormones, PFOS, PFOAs, low level pesticides and explosives. Full custom EDD capabilities including ADaPT, Equis and SED. Data review, method development and auditing services available. Forensic analysis, fuel fingerprinting, melamine, food and flavor analysis. 2) Ground water, soil, sediment, waste water, drinking water, food and nutraceuticals 3) Total: 32                      Engineers/Scientists: 22                      Technicians: 10 4) FL	1) NELAP, DoD, WMBE : State of Florida, SFWMD, Palm Beach County, Tampa Bay 2) Full field capabilities, SW, GW, marina and lake sampling 3) 23 years 4) Tampa, Miami
<b>Marinco Bioassay Laboratory Inc.</b> 4569 Samuel St. Sarasota, FL 34233 1-800-889-0384 • Fax (941) 922-3874 Jason Weeks, President weeks@biogylab.com www.toxtest.com	1) Acute and chronic NPDES toxicity testing, toxicity identification and reduction evaluations, ion imbalance toxicity studies (MSIIT) 2) Domestic and industrial treated effluents, remediation site discharges, storm-water discharges, reverse osmosis reject, product testing 3) Total: 10                      Engineers/Scientists: 4                      Technicians: 6	1) NELAP accredited 2) Toxicity consulting, supply high quality bioassay organisms for testing 3) 28 years
<b>Pace Analytical Services Inc.</b> 8 East Tower Circle Ormond Beach, FL 32174 (386) 672-5668 • Fax (386) 673-4001 David Chaffman, Sales Manager david.chaffman@pacelabs.com www.pacelabs.com	1) Full drinking water and environmental testing services. Monitoring for CERCLA, RCRA, NPDES, SDWA, UCMR3, RCRA/UST, PFOA, CCR and CWA 2) Drinking water, environmental water, groundwater, surface water, soil, sediment, air, biota 3) Total: 150 4) MN	1) NELAC, NELAP NAICS 541380 2) Field sampling, courier services 3) 40 years under same ownership 4) Labs in Tampa, Ormond Beach, Pompano Beach and service centers in Miami Lakes and Jacksonville
<b>Palm Beach Environmental Laboratories Inc.</b> 1550 Latham Rd., Suite 2 West Palm Beach, FL 33409 (561) 689-6701 • Fax (561) 689-6702 Diana Magierowski, Marketing/Owner dianam@palmbeachlabs.net	1) Environmental analysis specializing in BTEX, VOHs, PAHs, EDB FLPro-TRPH, VOCs by EPA 8260, SVOCs by EPA 8270, pesticides, TCLP/SPLP in both water and soil samples, incremental sampling (ISM) 2) Water, soil 3) Total: 9                      Engineers/Scientists: 5                      Tech/Admin: 4 4) FL	1) NELAC certified; CSHA certified; Palm Beach County and city of West Palm Beach; and both SBE and WMBE for Palm Beach schools and the state of Florida Office of Supplier Diversity 2) Field sampling, courier services, familiarity with brownfield sites, online reporting, ADaPT, custom EDDs 3) 13 years
<b>Phoslab Testing Laboratories Inc.</b> 806 W. Beacon Rd. Lakeland, FL 33803 (863) 682-5897 George A. Fernandez, Vice President georgeaf@phoslab.com www.phoslab.com	1) Full range of environmental analysis. NPDES, RCRA, UST, PRP, BTEX, PAH, EDB, TCLP/SPLP, FL PRO-TRPH, VOCs, SVOCs, 8260, 8270, organics, inorganics, metals, micro, in-house sampling and courier services covering the state of Florida 2) Wastewater, groundwater, surface water, drinking water, soil, sediment, petroleum, used oil and solid waste 3) Total: 31                      Engineers/Scientists: 15                      Tech/Admin: 15 4) FL	1) NELAC/TNI, MBE, DBE, SBE, state of Florida 2) Custom reporting via Promium Element LIMS, EDDs, ADaPTs, fast turn around times for organics and TCLP/SPLP analysis 3) 52 years 4) Serving all of Florida, domestic (US) and international clients



**LABS**

From Page 1

**Staffing**

Record high employment levels and worker shortages are in the news these days. However, lab officials said that hiring qualified technical staff has not been a serious issue for them.

Labs in close proximity to universities or community colleges with competent educational programs may have an advantage.

Dale Dixon, PhD, laboratory manager at Benchmark EnviroAnalytical Inc. in Palmetto, said that their location is such that they can hire from the University of South Florida, the University of Tampa or from the State College of Florida in Bradenton. "I find it easy to fill positions," Dixon said.

Demands for experienced professionals confers mobility for technical staff, something that was not so common during the past few years.

One respondent recently hired a lab manager from out-of-state for one of their branches.

One owner of a smaller lab indicated that she intended to hire a full-time professional to operate a new instrument she intends to purchase to streamline analyses currently done using wet chemistry methods.

Along with adding staff, several respondents indicated they have increased employee pay rates "modestly" over the past year.

Employee compensation may be a factor that helps push lab prices higher in the near future, particularly if the strong economy continues past the end of the year.

**Quality assurance standards**

Last year at this time, the environmental lab industry was anticipating Florida Department of Health rulemaking to update laboratory quality assurance standards to the TRI 2016 version. Completion of the process occurred before the end of July this year.

Last year, we reported that labs were concerned about the high cost of implementing the new standards. Lab officials

wanted a single annual proficiency testing requirement and were concerned about the escalating cost of biennial on-site audits.

However, DOH prevailed with most of the originally-proposed rule updates.

With prices so low, escalating certification costs continue to rankle lab officials, especially at the smaller labs.

Some of those smaller labs have had to add staff to handle quality assurance compliance. One mentioned hiring a consultant for a fixed term to work with staff to ensure compliance with the updated procedures.

Flowers noted one technical issue involved with the new standards: "The new MDL (minimum detection limit) procedure appears to be problematic. There's a lot of confusion as to what these changes will require for documentation during lab audits."

Despite a few lingering adjustments, the laboratory quality assurance program update is moving toward full compliance in Florida's certified environmental laboratories.

**Instrumentation, technology**

None of the lab officials we interviewed identified any new instrumentation needed. Some noted that the pace of new method development has slowed.

Molecular biology tools and remote monitoring devices have been touted for several years as additional capabilities that environmental laboratories might adopt to meet client needs, but commercial labs have largely avoided including them in their service offerings.

Molecular biology reagents, such as those for algal toxins, have a strong niche in research.

Small, automated sensors are widely used in remediation projects, but are installed and maintained by the engineers and technicians on site, not environmental laboratory staff employed as their subcontractors.

An increasing focus on personal care products and other emerging chemicals of concern, such as perfluorinated compounds, presents analytical labs with a challenging growth prospect. Because the

U.S. Environmental Protection Agency has not established standards or monitoring requirements for these compounds, the lab analysis market has depended primarily on specific client interests, for example, a water treatment plant downstream from a chemical synthesis plant's effluent portal.

Also, because these compounds are usually present at low parts per billion or parts per trillion levels in environmental samples, they challenge analytical capabilities and technicians' skills.

AEL's Lashbrook noted that for these analyses, gas chromatography and liquid chromatography with tandem triple quadrupole mass spectroscopy gives labs an edge in analyzing these compounds to meet client expectation.

**Market changes**

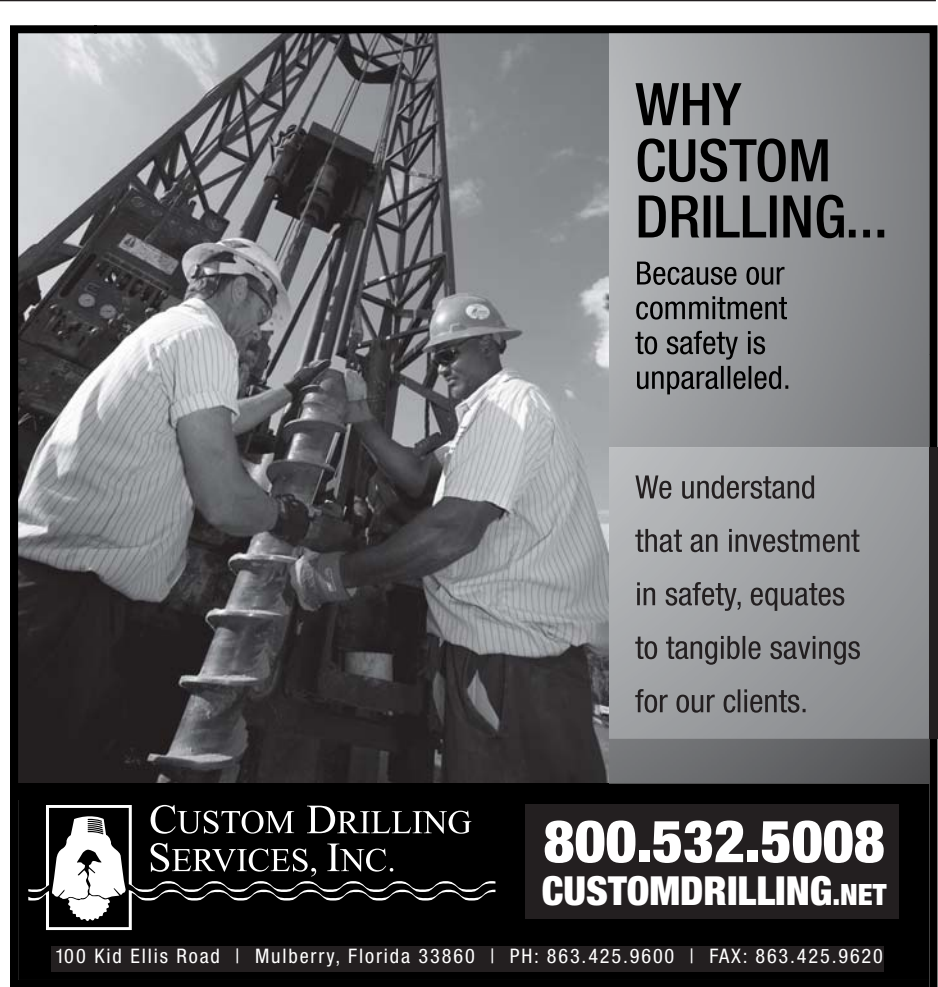
The need for new technology and methods for analyzing emerging contaminants depends primarily on whether new regulations for monitoring releases and cleaning up contamination require their use.

The current era of government apathy towards environmental protection—both at the state and federal level—has affected the workload of many commercial environmental labs.

During Rick Scott's two terms as governor, Florida has—with great determination—reduced monitoring requirements at closed solid waste disposal sites and has

**LABS**

Continued on Page 18




# Environmental Laboratories Serving Florida - 2018

Continued from prior page

Lab name and contact information	1) Capabilities/specialties, 2) Sample types, 3) Personnel info, 4) State of incorporation	1) Certs., 2) Add. capabilities, 3) Years in bus., 4) Other locations
<b>Professional Environmental Testing and Consulting LLC</b> 4650 SW 51st St., Suite 702 Davie, FL 33314 (954) 440-3537 • Fax (754) 223-3874 Dr. Carol Vassell Kreitner, Owner/Manager petc702@comcast.net www.petc702.com	1) Full service laboratory specializing in water testing (microbiology, wet chemistry) 2) Drinking water, wastewater, groundwater 3) Total: 6      Engineers/Scientists: 3      Tech/Admin: 2 4) FL	1) NELAP, FDOH #E861109, Minority business certification 2) Lab chemical sales - SE FL Coop Bid #14-57 3) 5 years
<b>Sanders Laboratories Inc.</b> 1050 Endeavor Ct. Nokomis, FL 34275 (941) 234-1000 • Fax (941) 484-6774 Jeff Walsh, Operations Manager jeff@sanderslabs.net www.sanderslabs.net	1) Surface water and groundwater monitoring, facility compliance and process control monitoring, ASR, injection well analysis and food microbiology 2) Drinking water, wastewater, groundwater, surface waters, cooling towers, soils and sediments; meat, juice/beverages, seafood, citrus, produce; materials testing; textiles 3) Total: 21 4) FL	1) NELAP: Drinking water, non-potable water, solid and chemical, ISO 17025 for food and mold testing 2) Now offering Legionella testing. Full field sampling capabilities. Sanders Labs is the only lab in Florida with A2LA/FSMO sampling certification: Certification #3544.02. PCR molecular detection in several matrixes. 3) 27 years 4) Two locations: Sarasota and Fort Myers
<b>SGS North America Inc.</b> 4405 Vineland Rd., Suite C-15 Orlando, FL 32811 (407) 425-6700 • Fax: (407) 425-0707 Caitlin Brice, M.S., Laboratory Director www.sgs.com/ehsusa	1) Full service laboratory specializing in organics and inorganics by SW-846 Methodology (VOCs, SVOCs, pesticides, herbicides, PCBs, metals, nutrients, etc.) in addition to incremental sample processing (ISM), explosives, perchlorate, PFOAs, PFCs, EPA 537 and DoD QSM 5.1 in DW, AQ, and SO, 1,4-dioxane by 4 methods 2) Water, soil, air, oil, sediments and wipes 3) Total: 85 4) NJ	1) NELAC, DoD/ISO 17025 and multiple state certifications 2) Electronic data deliverables including ADaPT, EQUIS, ERPIMS, and state forms. LC-QQQ and reduced sample volume via LVI (8270, 8270 SIM, 8081, 8082, 8151, 8141, 8015, AK102, FLPRO pending state approval). Courier throughout Florida, rush analysis, LC-QQQ including PFCs in DW, AQ, and SO with method 537 and QSM 5.1. Sampling services, surface water, wastewater, soil and marine. 3) 22 years 4) South Florida Service Center - 7769 NW 48th St., Suite 250, Miami, FL 33166
<b>TestAmerica Laboratories Inc.</b> 6712 Benjamin Road, Suite 100 Tampa, FL 33634 (813) 885-7427 • Fax (813) 885-7049 John Meade, Senior Account Executive john.meade@testamerica.com Rhonda Moll, Account Executive rhonda.moll@testamerica.com www.testamerica.com	1) ADaPT reporting, MADEP VPH/EPH, TPHCWG, ICP/MS, low level mercury, phosphated pesticides by GC/MS, low volume extractions, RSK 175, 1,4-dioxane, ISM protocols, microwave/microextractions, field sampling, 24/7 data access 2) Drinking water, wastewater, groundwater, surface water, stormwater, generic discharge, soil, sediment, solid and liquid wastes, and air testing; textiles 3) Total: 104 (FL)      Engineers/Scientists: 33 (FL)      Tech/Admin: 71 (FL) 4) DE	1) NELAC, A2LA, LAB, ISO/IEC 17025, DoD ELAP, USDOE, USDA Foreign Soil Permits, USF&W Import License as well as many private audits, approvals and certifications for various industrial oil, gas, chemical, waste and automotive companies. 2) EMLabs P&K (a TA company) does asbestos, mold and bacteria analysis. Other TA Labs perform radiological, dioxin, PFAS including PFOA/PFOS, Methyl Hg, ISM, LEAF methods, CCR GWM, air toxics, including VI, Enhance Hydrocarbon analysis, including fingerprinting, Ind. hygiene, Bioassessible Pb & As, GIS Key, EQUIS, CLP Methods. 3) 27 years 4) Labs: Pensacola and Tampa. Services centers: Fort Lauderdale, Orlando and Tallahassee





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Tim Preston - tpreston@aellab.com

**Tampa - (813) 630-9616**  
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## Advocacy groups file suit against EPA over air quality concerns

By PRAKASH GANDHI

Federal environmental officials are under fire from conservation groups concerned about the agency's apparent lack of effort to combat one of the nation's most important pollution issues.

The U.S. Environmental Protection Agency was sued by three conservation and public health groups who claim the agency failed to take steps to make sure that Florida and other places across the country are effectively dealing with sulfur dioxide pollution.

The groups include the Center for Biological Diversity, the Sierra Club and the Center for Environmental Health.

The suit was filed in U.S. District Court for the Northern District of California.

The main focus of their ire is former EPA Administrator Scott Pruitt, who resigned recently after a wave of criticism about his performance at the helm of the nation's top environmental agency.

The organizations accused Pruitt of failing to make sure the localities named in the suit are taking legally required steps to clean up the pollution.

Under the Clean Air Act, the EPA must identify and set National Ambient Air Quality Standards to protect human health, as well as forests, streams, wildlife and crops, from pollutants like sulfur oxides.

The CAA requires the agency to ensure there is a plan to clean up the pollution once the agency determines that an area's air quality exceeds the national standard.

Florida's Hillsborough and Nassau counties were singled out as areas where EPA has failed to put proper air pollution plans in place.

Addressing the issue is vitally important because sulfur oxides can cause serious medical problems, said Robert Ukeiley, senior attorney in the environmental

health program at the Center for Biological Diversity.

Ukeiley said sulfur oxides contribute to heart and lung diseases and have been linked to developmental problems in children. He noted that EPA has already determined that sulfur dioxide pollution can make people sick at communities across the country.

Dealing with this issue is vitally important, he said.

"The American Lung Association's own tag line says that when you can't breathe, nothing else matters," he said. "One unnecessary asthma attack is too much."

"Sulfur dioxide pollution affects millions of people across the country."

He said the federal agency has a deadline to review the plans to reduce pollution and determine whether the proposals will succeed.

But EPA has missed its deadline to review the plans, Ukeiley said.

"We are asking the court to order EPA to make a decision on whether the plans work or not," he said.

"EPA is more interested in finding out ways to weaken environmental protection even though Congress created a law saying they should fix the problem," he said.

Much of the blame centers on Pruitt and the Trump administration, he said.

"Their priorities are on loosening protection rather than doing what Congress mandated," he added. "And I don't expect that to change under the new leadership."

Nationally, burning both coal and diesel are the main causes of this pollution.

He said the Mosaic fertilizer plant was the main cause of sulfur dioxide pollution in Hillsborough County while the Rayonier sulfite pulp mill contributed largely to the high levels in Nassau County.

**AIR**

Continued on Page 9



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# FWC to study living shoreline techniques at Longboat Key park

By ROY LAUGHLIN

The town of Longboat Key, a low-lying barrier island community on Florida's Gulf Coast, will be the site of a Florida Fish and Wildlife Conservation Commission experiment to retrofit a traditional seawall to a living shoreline.

The project will compare four shoreline hardening and stabilizing techniques to determine which is more effective at preserving and improving habitat quality for fish and wildlife.

Under study are four methods of shoreline stabilization: the existing traditional vertical concrete seawall; a mangrove shoreline already in place; an oyster shell living shoreline; and a seawall modified by attaching concrete panels with a surface relief that resembles mangrove prop roots.

The idea behind the last method is that the three-dimensional structure that the

panels mimic will provide habitat for fish and invertebrates along the seawall.

The mangrove root panels are in place and volunteers have built the study's oyster shell shorelines.

On the science side of the study, investigators will measure fish, invertebrate and infaunal diversity in each treatment zone adjacent to the four hardening techniques used along Sarasota Bay.

The study that began July 1 will run for two years.

The FWC chose the Longboat Key park for two reasons.

First, Longboat Key Town Commissioner Irwin Pastor was an effective local advocate for the project who worked to build public support to site it at a city park.

Second, the town of Longboat Key's Bayfront Park already had a seawall in place. Adjacent to it are significant stands of mangroves along the shoreline.

The site offers the prospects of a

straightforward experiment with fewer uncontrolled variables influencing observations than if the four treatment methods were widely separated, for example, on opposite shores of Sarasota Bay.

The project is being funded through a \$112,178 state wildlife grant and \$71,971 in matching funds provided by the FWC and others.

The principal investigators are Fara Ilami, coordinator of the FWS Coastal Wildlife Conservation Initiative; and Ryan Moyer and Jeanne-Marie Havrylkoff of the FWC. Dr. Keith Van de Riet, University

of Kansas, is a partner on the project.

This project site is one of three in a geographically larger effort with two more sites, one in Tampa and one in Gulfport.

The living shoreline, habitat improvement project will be applicable to existing seawall-armored shorelines as well as shorelines built in the future to provide flood protection without increasing erosion and the loss of wildlife habitat value.

The investigators hope the living shorelines that improve habitat will be widely adopted in the future to provide resilience against sea level rise and storm flooding.

## New Palm Coast advanced wastewater treatment plant now online

By PRAKASH GANDHI

In an effort to meet soaring population growth and protect the environment, the east coast city of Palm Coast opened a new wastewater treatment plant.

The facility, located west of U.S. 1, opened earlier this year at a cost of about \$30 million. The cost of the project that took two years to build was met by a low-interest loan from the Florida Department of Environmental Protection.

City officials said the plant was badly needed because Palm Coast could not handle the treatment demand of its fast-growing population.

"Our original plant was built in the 1970s. We had expanded it several times and it was at maximum capacity," said Cindi Lane, the city's communications and marketing manager.

The new plant has a capacity of two million gallons a day. In June, the city was treating nearly one million gallons per day at the new plant. The older wastewater treatment plant will continue to operate.

Even during the recession, Palm Coast was growing every year, said Lane, adding that the city's current population is now about 86,000.

"Residential growth has been very strong over the past two years," she said. "And that growth is expected to continue. We still have about 18,000 vacant lots.

"We are a very vibrant community focused on quality of life and this is a service that our residents depend on every day."

The plant was built without increasing

rates for its utility customers. It was designed by CPH Engineers and built by PC Construction.

A reclaimed water main along U.S. 1 and a master pump station were also built as part of the project.

The new plant is classified as an advanced wastewater treatment facility.

"The effluent is almost of drinking water quality and, because of that, we are able to discharge to nearby wetlands, so it recharges the aquifer," Lane said.

The city received a small grant from the St. Johns River Water Management District to help pay for the pump station.

"We needed the new pump station so we could reroute some of the wastewater that was going to Wastewater Treatment Plant 1 to Wastewater Treatment Plant 2," Lane said.

Besides expanding a much-needed service to residents, the project is also part of the city's efforts to help improve the environment.

"The Palm Coast Utility prides itself on being progressive so that residents can have the best water and sewer service possible while protecting environmental assets," Lane said.

"We are really proud that we were able to forecast the need for this and produce a facility of the highest quality producing effluent that nearly meets drinking water standards. It can be used for irrigation, for groundwater recharge and to preserve the natural environment."

**AIR**  
From Page 8

He said that states could do their part in reducing pollution by promoting cleaner fuels like solar or wind instead of coal- or oil-burning power plants.

Replacing cars and trucks that use diesel fuel with electric or hybrid vehicles is another step that would dramatically decrease sulfur dioxide pollution.

"We are asking the judge to impose a deadline on whether these cleanup plans are adequate and that's one step in the process to getting sulfur dioxide pollution under control," Ukeiley said.

EPA spokesperson Enesta Jones said the agency had no comment on the lawsuit.

A spokesperson with the Florida Department of Environmental Protection did not respond to questions about the lawsuit or the state's efforts to deal with sulfur dioxide pollution.

Air quality has been a recurring problem in Hillsborough County for many years. In 2014, Hillsborough was the only county in the state to earn an "F" grade for ozone pollution from the American Lung Association of Florida.

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# DEP updates Environmental Resource Permitting program rules

By ROY LAUGHLIN

On June 1, the Florida Department of Environmental Protection updated its Environmental Resource Permitting rule, now Chapter 62-330, Florida Administrative Code.

Changes that will have the broadest impact include new and updated forms that reflect subtle but significant distinctions in permit activities, and a new cost schedule that offers discounts to applicants using DEP's web portal for submission in lieu of paper submission.

The permitting threshold, 62-330.200, is increased from one to five wetland acres of the total project area. The new rule includes new and clarified definitions and exemptions, and there are specialized activity permit updates, for mining, for example.

In a June webinar discussing the many new ERP provisions, clarifications and changes, DEP officials noted that ERP will not change in two ways: changes do not add significant costs for applicants and they do not reduce the level of environmental protection.

This article breaks down the changes into topic areas for ease of reading, even though many items are related.

Some of the new permits differentiate between two similar activities with subtle but significant differences. Going forward DEP will evaluate them under two permit types. For example, a dock used for mooring and a dock used for swimming will be permitted differently.

## New, updated forms

The new name of the most widely used application is "Application for Individual and Conceptual Approval Environmental Resource Permit and Authorization to Use State-Owned Submerged Lands."

Activities by residential properties formerly under general permit are now addressed by two different permit applications.

The first, 62-330.474, "General Permit for Certain Minor Activities," is for applicants wishing to construct a recreational dock or structure that is not used for mooring.

The second addresses 62-330.475, "General Permit for Single-Family Residential Activities and Isolated Wetlands."

It applies to the construction, alteration or removal of residential structures such as driveways, out structures or onsite sewage treatment plants. This change helps clarify the specific change on wetlands as-

sociated with the permit.

## New exempted activities

Streamlining in the new rule is apparent with the large number of permit-exempt activities. Government agencies now have exemptions for some of their specified recurring activities in wetlands.

The Florida Fish and Wildlife Conservation Commission no longer needs a permit for aquatic plant management.

The Florida Department of Transportation, counties and municipalities no longer need permits to repair existing concrete bridge pilings.

The National Oceanic and Atmospheric Administration may conduct seagrass and coral restoration efforts in the Florida Keys National Marine Sanctuary without a state permit.

In addition, business and franchise monopolies have received their share of exceptions. Communication tower sites in uplands no longer require a DEP ERP, nor do electrical distribution and switching sites in uplands.

Geotechnical investigations are also exempt. Presumably this applies to oil and gas exploration except that, "(t)his exemption shall not apply to borings used to place seismicographic charges for oil and gas exploration."

Property owners will no longer need to apply for a permit to install a "piling supporting a boatlift within an existing authorized, mooring area."

This exemption applies when it does not conflict with the permit for the existing dock construction. The boat lift piling exemption does not apply when additional structures such as platforms, catwalks and roofs are part of the addition.

Single-family residences will no longer need a permit for irrigation and air conditioning cooling withdrawals from waters of the state. All property owners may now use "minor dry borrow pits for sand and soil."

The characterization above is greatly simplified, leaving out qualifying details of exemptions. Those are available in 62-330.051 Exempt Activities, and in the handbook, both of which are available online.

## New clarifications

The new rule and handbooks include a number of exemption clarifications, some of which are implemented through permit applications using specified forms.

The explanatory text appears in sections throughout the rule beginning with 62-330.443, the first section for general permits, and continues to subsequent sections for some specific activities.

For the purpose of this article, the clarifications are grouped based on specific application, or the complexity and number of new clarifications.

The following list describes activities with a significant number of exemption stipulations or details characterizing exemptions, or alternately, conditions excluding exemption: new exemptions for recreational paths not intended for motorized vehicles; urban infill or redevelopment conceptual permits; general conditions for conceptual approval permits; water quality certification general conditions for individual permits; general clarification of exemption for installation of fences in wetlands and submerged lands; and general permits for docks, piers and associated structures.

The exemption clarification above for general permit for docks, piers and associated structures is one that will likely affect the largest group.

Owners of residential property that fronts deep water or wetlands should read the definitions and the handbook to ensure that they apply for the permit for docks and piers if they intend to berth a boat. If they want only a swimming platform, they will use a different form for the application.

A second group of exemption clarifications apply to permits that focus on spe-



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ERP  
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# Restoration complete on southern portion of Corkscrew Regional Ecosystem Watershed project

By PRAKASH GANDHI

South Florida water managers finished a major restoration effort that they said will have significant environmental benefits.

The two-year reconstruction of the southern part of the Corkscrew Regional Ecosystem Watershed is now complete.

The project restored the natural hydrology and ecology of more than 1,000 acres of critical habitat in southern Lee County.

The watershed is managed by the South Florida Water Management District and its partners representing business, environmental groups, landowners and government agencies.

The 60,000-acre watershed spans Lee

and Collier counties and includes a 5,000-acre marsh at its headwaters and the Audubon Corkscrew Swamp Sanctuary.

The project included construction of about 10 miles of roads and berms, and removed spoil piles, and plugged ditches and canal drainage systems.

Rick Barber, a SFWMD governing board member, said the project benefits the entire Southwest Florida ecosystem by restoring wetlands and the natural sheet flow of water.

"It gives access to lands that the public purchased," Barber said. "Some ditches, canals and road embankments were removed as part of the project so the land can return to its natural state."

He said the work also improved regional flood protection and increased water storage and aquifer recharge. Other benefits include reducing the amount of nutrient-rich stormwater reaching the Imperial River and Estero Bay.

perial River and Estero Bay.

"A lot of effort was put into making these improvements," he said. "This is a very important ecological area and the project has a lot of environmental benefits."

In the past, sheet flow in the Corkscrew Regional Ecosystem Watershed was blocked by dirt roads, agricultural ditches and several residential developments. This altered the ecosystem and contributed to flooding in the area.

The district developed the project to restore the ecosystem after significant flooding in 1995.

Officials acquired about 4,000 acres of land for the project. Exotic vegetation was cleared from more than 2,500 acres, and agricultural ditches were plugged on more than 600 acres.

So far, the district and state have invested more than \$32 million to conserve the lands with the U.S. Department of the Interior contributing another \$7 million to the restoration effort.

## ERP

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cific activities, or activities of specific entities. These include exemptions for living shorelines; general permit for installation of riprap; general permit for minor bridges; general permit for subaqueous utility crossings of artificial waterways; general permits to government entities for limited environmental restoration or enhancement; and general permits for low-profile oyster habitat.

The duration of permits has now increased. An individual permit will be in effect for five years from the date of issuance to construct and longer duration may be granted.

Permit duration may be less than five years for activities that are temporary, experimental or for activities of shorter duration than five years.

Urban infill or redevelopment conceptual permits are good for a period of up to 20 years unless shorter duration is requested.

Forms and instructions, including the handbook are available from the DEP web page titled: Forms of the Environmental Resource Permitting and Submerged Lands Programs.

DEP now gives a \$100 discount to applicants using the DEP business portal for an individual/conceptual permit. Self-certification of single-family dock exemptions is free.

Applicants may still submit application forms along with any supplemental infor-

mation either by email or paper mail. Email submissions should follow the department's Electronic Submission Instructions. Neither email nor paper submission is eligible for the \$100 discount.

ERP is a significant permitting activity at DEP.

From October, 2016, to September, 2017, the department issued 1,875 individual permits and 1,903 general permits, according to Jessica Melkun, an environmental consultant in the DEP's Division of Water Resource Management.

That amounts to more than seventy per week, indicating the extensive activity happening on state-owned submerged lands and wetlands.

The rule revision streamlines permitting in some ways, but also ignores activities on isolated wetlands with an area less than five acres, which potentially leaves hundreds of acres each year unprotected.

*Editor's note: The most significant change in the ERP rule, one not yet implemented, is DEP's assumption of Section 404 permitting from the U.S. Army Corps of Engineers.*

*A more extensive discussion awaits the passage of a final rule for assumption.*

*The most significant change to mention now, however, is to note that ERP permit applicants have not been able to submit a joint permit application to DEP and the corps since Oct. 1, 2017. Applicants in need of a corps permit must now apply directly using form ENG 4345 from the corps.*



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# ECUA lawsuit seeks compensation for polyfluorinated compounds in well water

By ROY LAUGHLIN

In late June, Pensacola's Emerald Coast Utilities Authority filed suit against 3M and others seeking financial compensation for contamination in its potable water wells.

As early as 2010, ECUA investigations identified perfluorooctanoic acid and perfluorooctane sulfonate in water drawn from four of its potable water supply wells.

The contaminants likely originated from aqueous film forming foams used for at least 40 years at airbases near the water supply wells.

The lawsuit filed in U.S. District Court in Pensacola seeks unspecified financial compensation for costs resulting from contamination investigations, well closure and filtration system costs to remove polyfluorinated compounds contaminating the authority's drinking water wells.

The U.S. Department of Defense was the country's largest single AFFF user and appears to be the one responsible for contamination in the Pensacola area.

The federal government, however, cannot be sued for the chemicals' use. Instead, the lawsuit lists several companies responsible for the manufacture and use of the

chemicals as plaintiffs. They include the 3M Co., Buckeye Fire Equipment Co., Chemguard, National Foam Inc., Tyco Fire Products LP and 49 John Doe defendants.

The compounds have also been used extensively in consumer products including non-stick cookware and food storage materials, fabric finishers and as textile-infused fire suppressants.

Since 2000, perfluorocarbon use, although still significant, has exhibited a downward trend.

The lawsuit's brief states that the compounds were detected at various times in well water above the federally advised health advisory level, which prior to 2016, was between 0.2 and 0.4 parts per billion before the U.S. Environmental Protection Agency promulgated a 70 parts per trillion voluntary health advisory level in 2016.

ECUA has taken four of its wells out of service since 2015.

The authority removed its Hagler and Bronson wells from service in 2015.

Its Spanish Trail Well ran at limited capacity from July, 2016, until June, 2017, when installation of a granular activated carbon filtration system to remove polyfluorinated compounds allowed full capacity pumping.

The authority's Airport North Well, taken out of service in 2011, received a GAC filtration system in August, 2017, and is now back in use.

The lawsuit alleged that PFOA/PFOS-containing products that contaminated the wells were defective because they caused extensive groundwater contamination "even when used in their foreseeable and intended manner."

As a result of that contamination, the authority has been required to undertake remediation of groundwater sources or to install filtration systems where groundwater remediation is impractical.

The lawsuit alleged that contamination resulting from PFOA/PFOS use is both a public and a private nuisance. It is also a

"trespass" that constitutes negligence by the manufacturers.

The suit alleged civil conspiracy because the plaintiffs knew of the hazards that PFOA and PFOS posed to groundwater throughout Florida.

A conspiracy finding in this case could be the worst-case scenario for the chemicals' manufacturers and users.

The suit requests financial compensation for past, present and future costs of investigations and analyses for contamination; for remediation of the groundwater sources and installation of the filtration systems to meet drinking water health guidelines; and for installation and maintenance of the monitoring mechanisms.

Punitive damages, consequential damages and other financial penalties associated with the case are also requested.

The suit does not list human health effects as an impact of contamination and does not seek damages for them. However, any judgment against the companies could potentially amount to millions of dollars.

The suit will undoubtedly be complicated by EPA's recent foot-dragging in translating the best available science into a protective standard for these compounds in drinking water.

In 2014, citing the shortage of suitable studies, the agency declined to set standards. Instead, it issued a provisional health advisory of 0.4 micrograms per liter for PFOA and 0.2 micrograms per liter for PFOS.

In 2016, the EPA prepared a study that became embroiled in industry-mediated controversy. That led to a "voluntary health advisory" of 0.07 micrograms per liter, 70 parts per trillion, for both PFOA or PFOS or a combination of the two compounds.

The U.S. Department of Health and Human Services just released a human health effects study pointing to much lower safe levels in drinking water.

As of early June, no defendant had as yet filed a response to the lawsuit. The suit is unlikely to be settled quickly.



## Fears of contaminated drinking water at Eglin AFB unfounded

By PRAKASH GANDHI

Fears that chemical compounds may have contaminated drinking water supplies at a Northwest Florida air force base are unfounded, according to officials there.

Officials at Eglin Air Force Base announced that chemical compounds found in groundwater there do not represent a danger to any drinking water supplies.

This spring, a U.S. Department of Defense report said that water from five of Eglin's groundwater monitoring wells contained two chemical compounds, perfluorooctanoic acid and perfluorooctane sulfonate, in concentrations far higher than U.S. Environmental Protection Agency lifetime health advisories.

The compounds found at Eglin are components of aqueous film forming foam used to fight petroleum-based fires and are not regulated under the federal Safe Drinking Water Act.

The water at or around military installations across the country contains potentially harmful levels of the compounds, which have been linked to cancers and developmental delays for fetuses and infants, the Pentagon said.

The DoD identified 401 active and Base Closure and Realignment installations in the country with at least one area where a known or suspected release of the compounds occurred.

These included 36 sites with drinking water contamination on base and more than 90 sites that reported either on-base or off-base drinking water or groundwater contamination.

The man-made chemicals are found in everyday household, food and clothing items. At military bases, however, they are concentrated in the foam used to extinguish aircraft fires.

At Eglin AFB, there were concerns about the release of the chemicals into the environment as a result of past firefighting activities. But Eglin officials said that although the contaminants are in the groundwater, there is no threat to people because there are no pathways to exposure.

Eglin's drinking water comes from the Floridan Aquifer, which is protected by a

**EGLIN**  
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# Brevard community fears cancer caused by perfluorinated compounds

By ROY LAUGHLIN

In March, the U.S. Department of Defense published results of its nationwide survey for perfluorinated compounds in groundwater at U.S. military bases.

Water samples from Patrick Air Force Base on Brevard County's barrier island had concentrations of 71 to 4,300,000 parts per thousand for perfluorooctanoic acid and perfluorooctanesulfonic acid.

Concentrations within this range occurred at all 28 survey wells sampled. All of the results are higher than the EPA's currently used voluntary health advisory level of 70 parts per trillion.

Plus, they are at least an order of magnitude greater than the 2-3 parts per trillion minimum risk levels provided in a recently released U.S. Department of Health and Human Services draft report on human health effects of perfluorinated compounds.

The beachside community's concern arises from allegations of excess cancer incidence in past and present residents.

Several months ago, Julie Greenwalt, PhD, who graduated from Satellite High School about 22 years ago, found she had colon cancer.

Through social media, approximately 20 additional Satellite High School alumni members have come forward as self-identified cancer victims.

The Brevard County Health Department is taking comments from current and former residents about the alleged cancer cluster in the community and is encouraging them to contact the Florida Statewide Cancer Registry.

Depending on information developed by the informal information gathering process, the health department may move forward in a more structured formal assessment in the South Patrick Shores community.

In a related development, the Brevard County School Board announced it would perform water sampling at designated barrier island schools in an attempt to identify any contaminants present above drinking water standards.

That sampling occurred the second week of July.

In news accounts since the DoD released information characterizing perfluorinated compounds at Patrick Air Force Base, residents around the base have speculated about a connection between the cancers and the compounds found in groundwater.

Satellite Beach residents get potable water primarily drawn from Lake Washington, a headwater of the St. Johns River. In addition, shallow wells provide irrigation water for some lawns.

Any connection between the contami-

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thick layer of clay that prevents contaminants from reaching the aquifer, said officials.

The aquifer supplies water to nearly 10 million people and is the primary source of drinking water for most cities in Central and North Florida.

Michael Spaits, a spokesman for Elgin AFB, said officials detected the chemicals in the fire training pit, an area at the base that contains a skeleton of an old aircraft.

The area is used for fire-fight training. "Our drinking water is not subject to any contamination from the groundwater," Spaits said. "And that's because of the geology of Northwest Florida.

"We test our drinking water constantly to make sure it meets safe drinking water standards."

Last year, more than 4,200 samples of the drinking water at the base were analyzed by an independent lab and no chemical contamination was found.

In 2016, Eglin switched to a new foam that contains no PFOS and only trace amounts of PFOA.

nated groundwater on the base and resident's exposure to it remains unexplained.

In 1990, South Patrick Shores residents made a similar claim that a cluster of cancers and Hodgkin's disease existed among residents and was caused by chemicals from past military activities.

A study was conducted by U.S. Environmental Protection Agency Region 4 and the Agency for Toxic Substances and Disease Registry in 1992.

The study surveyed for chemical contamination in the South Patrick Shores subdivision, and examined disease registry records for cancer, Hodgkin's disease and amyotrophic lateral sclerosis.

The survey located a few lots with elevated lead, chlorinated hydrocarbons and aluminum in soil, perhaps associated with waste dumping. But overall, the neighborhood was reasonably clean.

The ASTDR report noted that cancer rates were no higher in the neighborhoods adjacent to Patrick Air Force Base than Florida's overall cancer rates, except for breast cancer and cervical cancer.

Noting that cervical cancer is strongly associated with sexually-transmitted diseases, researchers were cautious about attributing a higher incidence to environmental factors.

The report noted that breast cancer was not consistently attributed to exposure to environmental chemicals. Perhaps that logic has changed, but clearly genetics and reproductive history are highly correlated factors in breast cancer occurrence.

Women have about a one-chance-out-of-10 lifetime risk of developing breast cancer. Like prostate cancer in men, breast cancer is a common cancer in women, the report noted.

The ASTDR report concluded that, even with the elevated breast and cervical cancer cases, "overall fewer cases of cancer were identified in Satellite Beach than would be expected."

Data indicated two clusters of Hodgkin's disease, one in the late 1960s and one in the early 1980s. The report noted "that finding is not unusual for cases of Hodgkin's disease."

Amyotrophic lateral sclerosis was not found to be elevated, at a rate of two per thousand.

As population increases, cancer cases and other diseases are likely to be seen more frequently even if the rate remains at relatively low numbers.

At this point, the data are still being collected to determine if the current cancer cluster scare is supported by statistics.

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## EIP study: Wood pellet producers evading CAA compliance

By ROY LAUGHLIN

The majority of wood pellet producers in eight southern states will fully evade Clean Air Act compliance standards for emissions of volatile organic compounds at their wood processing plants.

That's the conclusion of a study prepared by the Environmental Integrity Project with the assistance of the Dogwood Alliance, a Georgia-based environmental activist group.

The report alleged that 11 of the 21 operating wood fuel pellet plants in the U.S. have either failed to keep regulated air emissions below permitted threshold amounts, or have failed to install VOC emission controls required under the CAA.

The total annual air emissions, the report estimated, are 16,000 tons of CAA-regulated air pollutants: 2,500 tons of particulates, 3,200 tons of nitrogen oxides, 2,100 tons of carbon monoxide, and 7,000 tons of VOCs.

In addition, the plants collectively release 3.2 million tons of greenhouse gases annually.

The report covered all of the regulated air emissions but focused mainly on the plants' failure to use effective and relatively inexpensive and unsophisticated technology to control VOC releases.

The report described four different situations that synergistically have created the opportunity for wood fuel pellet makers to evade CAA compliance requirements.

First, the industry started with small facilities and thus was under the 250-ton emission threshold to be regulated under the CAA's New Source Review.

In 2009, the U.S. had a few plants, perhaps five, that individually produced less than 100,000 tons of fuel pellets per year. The total U.S. fuel pellet production, about 500,000 tons per year, was primarily for U.S. consumption in domestic wood-burning stoves.

In 2017, U.S. production increased to 21 plants producing over 4.7 million metric tons, virtually all of it exported to European Union nations.

And as the capacity and air emission levels have grown, the adherence to CAA emission requirements has not.

As European wood fuel pellet demand skyrocketed over the past decade, pellet

plants have been built in eight southern states from Virginia to Texas with two states, North Carolina and Georgia, adding the most.

Annual production capacity at the largest of these plants is greater than half a million tons. The largest plants produce more than 800,000 tons annually.

And along with the capacity increase, VOC emissions have increased.

The EIP reported that plants they examined had annual VOC emissions ranging from 28 tons per year to 628 tons per year with a cluster of emission rates between 200 and 525 tons per year. The numbers in the EIP report came from corroborated data of regulatory agencies and permit filings.

The VOCs are produced primarily from several different processes in pellet fabrication.

First, hammer mills pulverize the wood, much of it harvested living trees less than 10 years old. Next, they dry the wood to reduce water content from 70 percent to about 10 percent. Third, they heat the wood while compressing it to pellets. VOCs continue to be emitted as the pellets cool following fabrication.

The reduction of VOC emissions is relatively straightforward. They can be trapped during the all of the steps in the process described above and piped to burners underneath the drying oven for combustion.

At least four of the plants have no VOC controls at all. The majority have inadequate or incomplete controls, perhaps collecting VOC emissions from the dryer, but not from other process stages.

Even with partial VOC trapping, VOC emissions at some plants are still above 300 tons per year.

The excess VOC emissions occur, the report alleged, because states are not enforcing requirements for emission controls under the CAA.

Evasion occurs several ways. First, plant owners and operators file for exemptions, claiming their plants release less than 250 tons per year, the threshold that would require air emission controls using the best available technology.

The states continue to accept self-reported but erroneous emission rates in permit applications. In addition, some states such as North Carolina and Virginia, simply neglect to act on reported emission rates exceeding 250 tons per year.

North Carolina may have the worst record for refusing to enforce CAA regulations to reduce VOC from wood fuel pellet plants, according to the report.

Enviva Partners LP owns several of the state's largest pellet plants and accounts for the majority of that state's uncontrolled VOC release. One of its plants in Virginia and three in North Carolina use no VOC emission controls at all.

Georgia has taken steps to require some of its wood pellet plants to install some VOC controls, but the plants still exceed VOC emission limits because state regulators have accepted the assertion that to do more would be cost prohibitive.

That assertion is demonstrably false. The Westervelt plant in Alabama removes more than 90 percent of the VOCs from its air emission stream.

The pellet plant produces 320,000 tons per year but emits only 28 tons of VOC annually.

In most cases, Georgia wood pellet fuel producers could meet the standards set by the Westervelt plant by ensuring that VOCs were collected from all of the fabrication steps and piped to the burner for destruction.

The report makes the case that regula-



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**PELLETS**  
Continued on Page 17



# Calendar

## August

AUG. 7-8 – Course: Refresher Training Course for Experienced Solid Waste Operators – 16 Hours, Davie, FL. Presented by the University of Florida TREEO Center. Call (352) 392-9570 or visit [www.treeo.ufl.edu](http://www.treeo.ufl.edu).

AUG. 7 – Course: Refresher Training Course for Experienced Solid Waste Operators – 8 Hours, Davie, FL. Presented by the University of Florida TREEO Center. Call (352) 392-9570 or visit [www.treeo.ufl.edu](http://www.treeo.ufl.edu).

AUG. 7 – Course: Refresher Training Course for Experienced Solid Waste Operators – 4 Hours, Davie, FL. Presented by the University of Florida TREEO Center. Call (352) 392-9570 or visit [www.treeo.ufl.edu](http://www.treeo.ufl.edu).

AUG. 7 – Course: Refresher Training Course for Experienced Solid Waste Spotter – 4 Hours, Davie, FL. Presented by the University of Florida TREEO Center. Call (352) 392-9570 or visit [www.treeo.ufl.edu](http://www.treeo.ufl.edu).

AUG. 7-9 – Course: Initial Training Course for Landfill Operators and C&D Sites – 24 Hours, Davie, FL. Presented by the University of Florida TREEO Center. Call (352) 392-9570 or visit [www.treeo.ufl.edu](http://www.treeo.ufl.edu).

AUG. 7-9 – Course: Initial Training Course for Operators of Landfills and Waste Processing Facilities, Davie, FL. Presented by the University of Florida TREEO Center. Call (352) 392-9570 or visit [www.treeo.ufl.edu](http://www.treeo.ufl.edu).

AUG. 7-8 – Course: Initial Training Course for Transfer Station Operators and Materials Recovery Facilities – 16 Hours, Davie, FL. Presented by the University of Florida TREEO Center. Call (352) 392-9570 or visit [www.treeo.ufl.edu](http://www.treeo.ufl.edu).

AUG. 7 – Course: Initial Training Course for Spotters at Landfills, C&D Sites and Transfer Stations – 8 Hours, Davie, FL. Presented by the University of Florida TREEO Center. Call (352) 392-9570 or visit [www.treeo.ufl.edu](http://www.treeo.ufl.edu).

AUG. 7 – Course: Asbestos Refresher: Inspector, Ft. Walton Beach, FL. Presented by the University of Florida TREEO Center. Call (352) 392-9570 or visit [www.treeo.ufl.edu](http://www.treeo.ufl.edu).

AUG. 7 – Course: Asbestos Refresher: Management Planner – Ft. Walton Beach, FL. Presented by the University of Florida TREEO Center. Call (352) 392-9570 or visit [www.treeo.ufl.edu](http://www.treeo.ufl.edu).

AUG. 8 – Course: Asbestos Refresher: Contractor/Supervisor, Ft. Walton Beach, FL. Presented by the University of Florida TREEO Center. Call (352) 392-9570 or visit [www.treeo.ufl.edu](http://www.treeo.ufl.edu).

AUG. 8-11 – Course: Backflow Prevention Assembly Tester Training and Certification, Miami, FL. Presented by the University of Florida TREEO Center. Call (352) 392-9570 or visit [www.treeo.ufl.edu](http://www.treeo.ufl.edu).

AUG. 8 – Course: Refresher Training Course for Experienced Solid Waste Operators – 4 Hours, Davie, FL. Presented by the University of Florida TREEO Center. Call (352) 392-9570 or visit [www.treeo.ufl.edu](http://www.treeo.ufl.edu).

AUG. 8 – Course: Refresher Training Course for Experienced Solid Waste Operators – 8 Hours, Davie, FL. Presented by the University of Florida TREEO Center. Call (352) 392-9570 or visit [www.treeo.ufl.edu](http://www.treeo.ufl.edu).

AUG. 13-14 – Course: Backflow Prevention Assembly Tester Training and Certification, Venice, FL. Presented by the University of Florida TREEO Center. Call (352) 392-9570 or visit [www.treeo.ufl.edu](http://www.treeo.ufl.edu).

AUG. 16 – Course: Refresher Training Course for Experienced Solid Waste Operators – 8 Hours, Ft. Myers, FL. Presented by the University of Florida TREEO Center. Call (352) 392-9570 or visit [www.treeo.ufl.edu](http://www.treeo.ufl.edu).

AUG. 16 – Course: Initial Training Course for Spotters at Landfills, C&D Sites and Transfer Stations – 8 Hours, Ft. Myers, FL. Presented by the University of Florida TREEO Center. Call (352) 392-9570 or visit [www.treeo.ufl.edu](http://www.treeo.ufl.edu).

AUG. 16-17 – Course: Initial Training Course for Transfer Station Operators and Materials Recovery Facilities – 16 Hours, Ft. Myers, FL. Presented by the University of Florida TREEO Center. Call (352) 392-9570 or visit [www.treeo.ufl.edu](http://www.treeo.ufl.edu).

AUG. 17 – Course: Refresher Training Course for Experienced Solid Waste Operators – 8 Hours, Ft. Myers, FL. Presented by the University of Florida TREEO Center. Call (352) 392-9570 or visit [www.treeo.ufl.edu](http://www.treeo.ufl.edu).

AUG. 17-25 – Course: Backflow Prevention Assembly Tester Training and Certification, Ft. Myers, FL. Presented by the University of Florida TREEO Center. Call (352) 392-9570 or visit [www.treeo.ufl.edu](http://www.treeo.ufl.edu).

AUG. 18-26 – Course: Backflow Prevention Assembly Tester Training and Certification, Tampa, FL. Presented by the University of Florida TREEO Center. Call (352) 392-9570 or visit [www.treeo.ufl.edu](http://www.treeo.ufl.edu).

AUG. 22-24 – Conference: Annual Georgia Environmental Conference, Jekyll Island, GA. Call (678) 427-2430 or visit [www.georgiaenr.com](http://www.georgiaenr.com).

AUG. 26-30 – Conference: National Conference on Ecosystem Restoration, New Orleans, LA. Hosted by the University of Florida Institute of Food and Agricultural Sciences and others. Call (352) 392-5930.

AUG. 28 – Conference: Water Finance Conference 2018, A NACWA Partner Event, Washington, DC. Presented by the National Association of Clean Water Agencies. Call (202) 833-2672 or visit [www.nacwa.org](http://www.nacwa.org).

AUG. 28-30 – Course: Introduction to Electrical Maintenance, Gainesville, FL. Presented by the University of Florida TREEO Center. Call (352) 392-9570 or visit [www.treeo.ufl.edu](http://www.treeo.ufl.edu).

AUG. 28-31 – Symposium: 29th Annual Technical Symposium of the Florida Lake Management Society, Ft. Lauderdale, FL. Call (352) 434-5025.

AUG. 30 – Expo: 11th Annual Southwest Florida Water and Wastewater Expo, Punta Gorda, FL. Presented by Region V of the Florida Section of the American Water Works Association. Contact Cherie Wolter at (239) 278-7996, ext. 114.

## September

SEPT. 7-8 – Course: Backflow Prevention Recertification, Ft. Myers, FL. Presented by the University of

Florida TREEO Center. Call (352) 392-9570 or visit [www.treeo.ufl.edu](http://www.treeo.ufl.edu).

SEPT. 8-9 – Course: Backflow Prevention Recertification, Bradenton, FL. Presented by the University of Florida TREEO Center. Call (352) 392-9570 or visit [www.treeo.ufl.edu](http://www.treeo.ufl.edu).

SEPT. 8-9 – Course: Backflow Prevention Recertification, Tampa, FL. Presented by the University of Florida TREEO Center. Call (352) 392-9570 or visit [www.treeo.ufl.edu](http://www.treeo.ufl.edu).

SEPT. 8-11 – Conference: Annual Conference of the American Institute of Professional Geologist, Colorado Springs, CO. Call (303) 412-6205 or visit [aipg.org](http://aipg.org).

SEPT. 10-14 – Course: Backflow Prevention Assembly Tester Training and Certification, Gainesville, FL. Presented by the University of Florida TREEO Center. Call (352) 392-9570 or visit [www.treeo.ufl.edu](http://www.treeo.ufl.edu).

SEPT. 10-14 – Course: Backflow Prevention Assembly Tester Training and Certification, Orlando, FL. Presented by the University of Florida TREEO Center. Call (352) 392-9570 or visit [www.treeo.ufl.edu](http://www.treeo.ufl.edu).

SEPT. 10-14 – Course: Backflow Prevention Assembly Tester Training and Certification, Pensacola, FL. Presented by the University of Florida TREEO Center. Call (352) 392-9570 or visit [www.treeo.ufl.edu](http://www.treeo.ufl.edu).

SEPT. 10-12 – Course: Backflow Prevention Assembly Repair and Maintenance Training and Certification, Altamonte Springs, FL. Presented by the University of Florida TREEO Center. Call (352) 392-9570 or visit [www.treeo.ufl.edu](http://www.treeo.ufl.edu).

SEPT. 10 – Course: Asbestos Refresher: Project Design, Gainesville, FL. Presented by the University of Florida TREEO Center. Call (352) 392-9570.

SEPT. 11 – Course: Refresher Training Course for Experienced Solid Waste Operators – 8 Hours, Crest-

view, FL. Presented by the University of Florida TREEO Center. Call (352) 392-9570 or visit [www.treeo.ufl.edu](http://www.treeo.ufl.edu).

SEPT. 11-13 – Course: Initial Training Course for Landfill Operators and C&D Sites – 24 Hours, Crestview, FL. Presented by the University of Florida TREEO Center. Call (352) 392-9570 or visit [www.treeo.ufl.edu](http://www.treeo.ufl.edu).

SEPT. 11 – Course: Initial Training Course for Spotters at Landfills, C&D Sites and Transfer Stations – 8 Hours, Crestview, FL. Presented by the University of Florida TREEO Center. Call (352) 392-9570 or visit [www.treeo.ufl.edu](http://www.treeo.ufl.edu).

SEPT. 11-12 – Course: Refresher Training Course for Experienced Solid Waste Operators – 16 Hours, Crestview, FL. Presented by the University of Florida TREEO Center. Call (352) 392-9570 or visit [www.treeo.ufl.edu](http://www.treeo.ufl.edu).

SEPT. 11-12 – Course: Initial Training Course for Transfer Station Operators and Materials Recovery Facilities – 16 Hours, Crestview, FL. Presented by the University of Florida TREEO Center. Call (352) 392-9570.

SEPT. 11 – Course: Refresher Training Course for Experienced Solid Waste Operators – 4 Hours, Crestview, FL. Presented by the University of Florida TREEO Center. Call (352) 392-9570 or visit [www.treeo.ufl.edu](http://www.treeo.ufl.edu).

SEPT. 11-13 – Course: Initial Training Course for Operators of Landfills and Waste Processing Facilities, Crestview, FL. Presented by the University of Florida TREEO Center. Call (352) 392-9570 or visit [www.treeo.ufl.edu](http://www.treeo.ufl.edu).

SEPT. 11 – Course: Refresher Training Course for Experienced Solid Waste Operators – 4 Hours, Crestview, FL. Presented by the University of Florida TREEO Center. Call (352) 392-9570 or visit [www.treeo.ufl.edu](http://www.treeo.ufl.edu).

SEPT. 11-14 – Course: Water Class C Certification Review, Gainesville, FL. Presented by the University of Florida TREEO Center. Call (352) 392-9570 or visit [www.treeo.ufl.edu](http://www.treeo.ufl.edu).



### ASBESTOS COURSES

**Asbestos: Cement Piping (Class II) Initial & Refresher**  
Sep. 13, 2018 | Gainesville, FL | CEUs: 0.8

**Asbestos: Inspector**  
Oct. 1-3, 2018 | Gainesville, FL

**Asbestos: Management Planner**  
Oct. 4-5, 2018 | Gainesville, FL

**Asbestos: Contractor/Supervisor**  
Oct. 22-26, 2018 | Gainesville, FL

**Respiratory Protection**  
Dec. 4-6, 2018 | Gainesville, FL

**Refresher Courses**  
Sep. 10-12, 2018 | Gainesville, FL  
Nov. 7-8, 2018 | Gainesville, FL

**Online Courses**  
Asbestos Refresher: Contractor/Supervisor  
Asbestos Refresher: Inspector

### WATER & WASTEWATER COURSES

**Introduction to Electrical Maintenance**  
Aug. 28-30, 2018 | Gainesville, FL | CEUs: 2.0

**Water Class C Certification Review**  
Sep. 11-14, 2018 | Gainesville, FL

**DEP SOPs for Water Sampling & Meter Testing**  
Oct. 2, 2018 | Gainesville, FL | CEUs: 0.8

**Intro to DEP SOPs for Groundwater**  
Oct. 3, 2018 | Gainesville, FL | CEUs: 0.4

**Process Control of Advanced Waste Treatment Plants**  
Oct. 16-18, 2018 | Kissimmee, FL | CEUs: 2.1

**Effective Utility Leadership Practices**  
Oct. 31 - Nov. 1, 2018 | Gainesville, FL | CEUs: 1.35

**Water Class B Certification Review**  
Dec. 11-14, 2018 | Gainesville, FL

**Water Treatment Plant Operations Class C & B Training Course Online (C-DW)**  
Approved C Water Course | CEUs: 3.0

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### BACKFLOW PREVENTION COURSES

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Sep. 10-14, 2018 | Pensacola, FL  
Sep. 21-28, 2018 | Venice, FL\*\*  
Sep. 22-30, 2018 | Tampa, FL\*  
Oct. 12-20, 2018 | Ft. Myers, FL\*\*  
Oct. 27-Nov. 4, 2018 | Tampa, FL\*  
Nov. 5-9, 2018 | Orlando, FL  
Nov. 5-9, 2018 | Pensacola, FL  
Nov. 9-17, 2018 | Venice, FL\*\*

\*Two consecutive Sat. & Sun.  
\*\*Two consecutive Fri. & Sat.

#### Backflow Prevention Assembly Repair and Maintenance Training & Certification

Sep. 10-12, 2018 | Altamonte Springs, FL  
Sep. 17-19, 2018 | Gainesville, FL  
Oct. 3-5, 2018 | Orlando, FL  
Oct. 26-27, 2018 | Venice, FL  
Dec. 5-7, 2018 | Orlando, FL

#### Backflow Prevention Recertification

Sep. 7-8, 2018 | Ft. Myers, FL  
Sep. 8-9, 2018 | Bradenton, FL  
Sep. 8-9, 2018 | Tampa, FL  
Sep. 15-16, 2018 | Jacksonville, FL  
Sep. 27-28, 2018 | Pensacola, FL  
Sep. 27-28, 2018 | West Palm Beach, FL  
Oct. 1-2, 2018 | Orlando, FL  
Oct. 5-6, 2018 | Venice, FL  
Oct. 18-19, 2018 | Gainesville, FL  
Oct. 25-26, 2018 | Pensacola, FL  
Nov. 1-2, 2018 | Destin, FL  
Nov. 3-4, 2018 | Bradenton, FL  
Nov. 5-6, 2018 | Altamonte Springs, FL  
Nov. 10-11, 2018 | Tampa, FL  
Nov. 15-16, 2018 | Gainesville, FL  
Nov. 29-30, 2018 | Pensacola, FL

### SOLID WASTE COURSES

#### Initial & Refresher Courses

Sep. 11-13, 2018 | Crestview, FL  
Sep. 26-28, 2018 | Gainesville, FL  
Nov. 14-16, 2018 | Gainesville, FL

#### Online Courses

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The Florida Specifier welcomes columns, articles and letters to the editor on any subject or issue pertinent to the environmental, regulatory and technical areas the newspaper covers. We reserve the right to edit all submissions for newspaper style and publish submissions on a space-available basis only. The opinions expressed on this page are those of the authors.



# SJRWMD approves cost-share funding for water-related projects

By **BLANCHE HARDY, PG**

The St. Johns River Water Management District Governing Board recently approved 27 water projects, ranking them within the district's annual cost-share program for fiscal year 2018-2019. The projects are in nine counties and will share in approximately \$16 million in district funding.

"These 27 projects were chosen based on their benefit to one or more of the district's primary core missions of water

supply, water quality, natural systems restoration and flood protection," said Dale Jenkins, chief of the Bureau of Project Management at the district.

The governing board started prioritizing funding, soliciting and procuring project proposals for cost-share projects benefiting water resources on an annual basis in fiscal year 2013-2014.

Under the current program, funding is available for up to 33 percent of construction costs for selected projects.

Project applications were submitted by

local governments, utilities and others, and were scored on their benefits to one or more of the district's four core missions, the overall quality of the applications, construction readiness and timely completion, and cost effectiveness, Jenkins said.

The districtwide cost-share program was moved up two months, from March to January, to mirror the new Florida Department of Environmental Protection requirements related to springs restoration funding.

Jenkins listed the selected projects by number and category noting that there are 12 projects for water quality improvement, six projects for alternative water supply, four projects for water conservation, three projects for natural systems restoration and two projects for flood protection.

The largest number of requests for funding by category reached \$19.5 million for water quality projects that represented almost 60 percent of the submitted projects.

The district received 61 applications and processed 54 totaling \$33.4 million. Seven projects did not qualify.

"District cost-share funding for water resource protection and restoration projects is helping local governments make

progress in preserving, restoring and enhancing our drinking water source, our waterways and our Outstanding Florida Springs," said SJRWMD Executive Director Ann Shortelle, PhD.

Shortelle noted that these cost-share programs are a great way to ensure taxpayers are getting the best return on their tax dollars.


"These cost-share funds will help develop more than four million gallons of alternative water supplies, provide recharge to the Upper Floridan Aquifer, reduce nutrient loading to our waterways and springs, protect against flooding and conserve water," she said.

The selected projects are required to be under construction within the 2019 year and must be completed within two years.

Funds will be available for the selected projects on Oct. 1, 2018.

Jenkins said that the anticipated benefits from the selected projects include over a half million gallons a day of water conservation, four mgd of alternative water supply, 27,690 pounds per year of total nitrogen load reduction, 58,050 pounds per year of total phosphorus load reduction, and an estimated 56 acres protected from flooding, among other benefits.

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## USGS report: U.S. water consumption rate decreased to lowest level since 1970

By **ROY LAUGHLIN**

The U.S.' total water use from all sources, including saline ground water and ocean water, was 322 billion gallons a day in 2015, the most recent year of summary statistics released by the U.S. Geological Survey.

This represents the least total water usage across the country since 1970.

The largest use category was withdrawal for cooling water at thermoelectric power generation plants, accounting for 133 billion gallons a day across the country.

Irrigation use, at about 120 billion gallons a day total withdrawal, was not far behind.

Public supply withdrawals were a distant third category at about 40 billion gallons a day.

Additional categories, rural domestic

and livestock, and various other lesser water uses amounted to about the same as public water supply.

The 2015 tally continued the downward water use trend that has been occurring since 2010.

Nationally, thermoelectric power generation led the decrease by category with a drop of 18 percent.

The USGS said that shifts to more efficient power plants and cooling system technologies, water withdrawal declines to protect aquatic life and many coal-powered plant closures were the reasons for the substantial drop in water withdrawals for power generation.

With a decline of seven percent, public supply withdrawal was second in terms of declining withdrawals. This occurred

**USGS**  
Continued on Page 19

**WIN**  
From Page 1  
stamp tax for water and land conservation since 1968.

Unfortunately, Florida lawmakers interpreted the amendment differently. From its inception, they diverted funds from land acquisition to cover general budgetary costs such as salaries for existing staff and agency operating expenses.

Earthjustice, representing the Florida Wildlife Federation, St. Johns Riverkeeper, the Environmental Confederation of Southwest Florida, the Sierra Club and Manley Fuller, filed suit with the Leon County Circuit Court in June, 2015, to compel the Florida Legislature to comply with the amendment's intent.

Judge Dodson gave them a victory.

Representatives of the Legislature responded immediately with their intention to appeal the ruling.

We asked the conservation advocates to explain what the court decision means for Floridians.

"This means that there will be more parks and conservation lands for the people in Florida to enjoy," said Coe. "Most people in Florida spend a lot of time outdoors. The ruling will enable the purchase of land that helps protect our wild spaces and waters.

"Tourists from all over the world are attracted to the state because of its natural beauty and having more protected places helps our economy as well."

"The ruling means that over the next 15-16 years, if the court decision holds up through the appeals process, billions of dollars will be available for strategic land acquisition, including conservation ease-

ments on the private property of willing land owners," said Manley Fuller, president of the Florida Wildlife Federation. "Those lands will never be developed and can never be subdivided."

"Thanks to this ruling, the Legislature and state agencies must honor the voters' will to preserve Florida's natural lands, which is critical to protecting Florida's waters," said St. Johns Riverkeeper Lisa Rinaman. "This ruling is a stunning victory for our state's wild places, rivers, springs, residents and future generations."

"Lands with environmental values and functions can be purchased for those of us here now, but also future generations," said Becky Ayech with the Environmental Confederation of Southwest Florida. "These future generations will have the opportunity to enjoy the natural beauty of Florida."

"It means that Florida will not turn into a sardine can with people packed into every square inch."

The importance of conservation lands exceeds the visual impact they provide.

"The money will enable the state to put together wildlife corridors that expand across the whole state from the Everglades to the Panhandle," noted Fuller. "Strategic land acquisition can play an important role in protecting water resources such as springs and bays."

"Investing in preservation of our land as the voters intended provides a buffer to offset the impacts of growth, protects water quality in our rivers by protecting adjacent wetlands and reducing pollution runoff, provides flood protection, makes our coasts more resilient and provides access to the magic that is Florida's environment," said Rinaman.



# USF-led study provides insight into pollution resilience of Gulf fish communities

By ROY LAUGHLIN

A recently completed six-year investigation by a team of academic researchers indicated that fish species diversity in the Gulf of Mexico significantly influences fish population resiliency following catastrophic events such as the Deepwater Horizon oil spill.

The research, "Comparative Abundance, Species Composition, and Demographics of Continental Shelf Fish Assemblages throughout the Gulf of Mexico," characterized fish diversity around the entire Gulf of Mexico at depths of approximately 40 to 100 meters.

The extensive sampling provides baseline information about fish species diversity from the West Florida shelf around the entire Gulf of Mexico.

In these days of high tech and remote, automated sampling, the study's methods were surprisingly simple. Researchers collected fish from 153,000 baited hooks on 343 demersal longline sets during 2011-2017.

The fishing effort yielded nearly 15,000 fish representing 166 unique species. The total catch represented 11 percent of the 1,541 known species in the Gulf.

The use of hooks was selected for large meat-eating fish that support subsistence, sports and commercial fisheries.

Rare, small adult-sized, reef and herbivorous species were excluded by this sampling technique. Nevertheless, more than 10 percent of the baited hooks returned a fish as a sample.

The report's statistical analysis focused on the determination of species and a comparison of species richness of those collected using baited hooks, not on the total number of known Gulf species.

Researchers calculated species richness over the six-year collection at 343 stations. The largest number of stations, 140, was in the north central Gulf in the region

where the Deepwater Horizon spill occurred.

The researchers addressed the possibility that annual trends in fish populations influence species richness by noting that the overall catch of total species per unit effort was stable through six annual surveys, although some fish such as red snapper and southern hake exhibited decreases in abundance.

More significantly, "aggregating species in the taxonomic groups resulted in relatively consistent catches without significant trend," according to the report.

Species aggregations indicated that sharks, followed by snapper and grouper were the most abundant groups across all sampling efforts.

The catch-per-unit effort was highest in the north central and northwestern Gulf regions. It was lower along the West Florida Shelf, and in Cuba, Yucatán and the southwestern Gulf.

Species richness followed a different pattern. It was highest in the north central and west Florida shelf subareas, and lowest in the northwest Gulf and off Cuba.

This research began in 2011, the year after the Deepwater Horizon well blowout. Its data reflect fish populations only since the spill.

The distinctly different species richness characterizations for the central Gulf and the sampling region adjacent to it, the northwest Gulf of Mexico, was a significant finding considering possible oil pollution effects.

The researchers suggested that the species richness in the northern Gulf, which was measured for seven years following the blowout, offered evidence that diverse fish communities are more resilient to catastrophic events.

Even if diversity has dropped because of the blowout, the fish diversity that is the highest of any Gulf sub-region sampled since the spill supported the researchers' conclusion.

deavoring to operate in compliance with their permit limits, including the controls that the state has required.

"The (EIP) report deliberately mischaracterizes and misrepresents emissions, appropriate control technology and standards within the industry.

"In short, the EIP report is based on a fictional version of the Clean Air Act that the authors would like to see, but that is not the law currently in place and implemented by the state agencies implicated in the report."

The EIP report, however, is a compelling case study of how turning over enforcement responsibility to states can result in varying levels of enforcement.

Alabama, Georgia and, perhaps, Florida seem to be updating their regulatory actions to reflect the recent rapid growth of the region's wood fuel pellet production capacity and corresponding orders of magnitude increase in VOC emissions.

At the other end of the spectrum, North Carolina and Virginia are demonstrably much less effectively at regulating the industry, if doing nothing could even be considered regulation.

Of all U.S. wood fuel pellet producers, one company, Enviva, with its plants in Virginia and North Carolina, appears to set a low standard for fuel pellet producers in other states when it comes to meeting VOC emission standards under the CAA.

While this article focuses on VOC emissions, the report also discussed soot emissions, other emissions regulated by the CAA such as oxides of nitrogen, and safety failure such as frequent smoldering fires in pellet storage silos.

It presents the data on a state-by-state basis, making it accessible to state level CAA regulators. As far as environmental advocacy reports go, it's straightforward, readable and authoritative.

The report, "Dirty Deception: How the Wood Biomass Industry Skirts the Clean Air Act" by Patrick Anderson, is available online.

Conversely, the area in the northwest Gulf off the upper Texas coast, already characterized by low fish species diversity, is at higher risk of ecological damage from a future oil contamination event.

The northwestern area is also the Gulf's second most densely drilled offshore area, after the central Gulf region.

Deep-sea fish communities, which exhibit notably lower diversity than demersal continental shelf fish populations, are particularly at risk as oil drilling efforts

occur more frequently in deeper waters.

Data from this study, while providing only circumstantial evidence of the well blowout's effects, serve as a baseline for evaluation of any future events such as oil contamination or other significantly disruptive events.

The report was authored by Steven A. Murawski, Ernst B. Peebles, Adolfo Garcia, John W. Tunnell Jr., and Maickel Armenteros, and appeared in *Marine and Coastal Fisheries* in June.

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## PELLETS

From Page 14

tors have taken some steps to more effectively regulate VOCs, but need to do more, pointing specifically to inconsistent compliance levels among Georgia's wood pellet plants.

Florida currently has only one wood fuel pellet production plant, the Cottondale, FL, plant owned by North Carolina's Enviva.

According to the report, Enviva has consistently evaded permit requirements to improve VOC emission reductions by claiming that doing so is cost prohibitive.

According to the report, the plant with a capacity of 821,000 tons per year and VOC controls only on its dryer, still emits 517 tons per year.

It is in the top tier of emitters of all U.S. plants.

When the Cottondale plant's permit recently came up for review, EIP challenged it, according to Patrick Anderson, an attorney with Powell Environmental Law and author of the report

Under consent agreement, the Florida Department of Environmental Protection agreed to seek controls that will reduce VOC emissions.

According to Anderson, Enviva has applied for a new permit and DEP is currently reviewing it. The terms of the permit will not be publicly known until it is issued.

Anderson seemed hopeful that DEP would require VOC emission controls that could bring the plant into CAA compliance for VOCs.

He also that the EIP asked Enviva for a meeting to discuss the report, but the company did not agree to meet.

A press release prepared by Enviva in response to the EIP report included the following statements: "Most importantly, each facility noted within the report is currently operating pursuant to a legally-issued air permit by the applicable state.

"The facilities have been truthful in their permit applications, have provided all requested and required data, and are en-



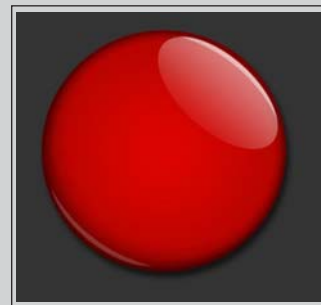
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**LABS**

From Page 7

reduced funding levels for virtually all state cleanup programs.

According to many officials, labs that were heavily involved with state programs have suffered.

But other client sectors for environmental analysis are holding up much better.

Site remediation and brownfield redevelopment programs remain strong as of mid-2018. Wastewater and drinking water analysis is mandated by law and customer fees support frequent chemical and microbiological analyses.

Over the last eight years, the overall growth of the environmental lab client base has helped many labs recover after the significant loss of business that occurred as a result of the 2018 recession.

Chaos at the EPA has had a lesser impact on Florida's lab enterprise, according to those interviewed. The EPA has been slow to establish standards for several

chemicals that seem to warrant them, and to establish the analysis protocols for them.

It is potentially the agency's most significant influence on Florida's environmental laboratories, although it is difficult to assess.

Lashbrook said that labs can propose alternative methods and perform round-robin exercises to characterize their accuracy and detection levels.

Perhaps in an effort to reduce EPA size and regulatory scope, the agency will depend upon environmental labs to take a leading role in developing new protocols that eventually become standard.

**LIMS cyber crime**

Since Russian cyber crime compromised the 2016 presidential election and, more recently, widespread international ransomware and spearphishing attacks have become highly profitable criminal activities, public agencies at all levels and businesses in all categories are now targets.

Laboratory Information Management

Systems are an integral component of all environmental lab enterprises, making them potentially vulnerable.

All of the lab officials we spoke with were well aware of this risk.

None said they had been hacked or had been a victim of ransomware. But one acknowledged a known recent failed attempt to hack that was traced to a Russian IP address.

Lab officials said that cybersecurity was part of the regular maintenance and operation of their LIMS and IT systems, and all had an IT pro on staff or contracted.

**Near-term prospects**

All of the lab officials we interviewed were upbeat regarding the near-term prospects for the industry. None were concerned about a diminishing workload in the near future, either because of regulatory policy changes and monitoring requirements, or an economic downturn.

One respondent with professional experience in other states said Florida was one of the best locations for operating an environmental laboratory business in the country.

"We have had a generally growing economy for the past 10 years, but we're near the end of the cycle," said Benchmark's Dixon. "I expect there will be some effect on our business, but I don't expect it to be dramatic. I base that on the last recession, which was deep, but didn't affect us much."

He said that public utilities, a major client category of his, are required to test their drinking water, and their customers are literally connected to their system and will pay for that necessity, even in a down economy.

**Prospects for price increases**

Lab prices seem to be at a point where there's nowhere else to go but up.

"Each year, just about every major lab expense (gas, consumables, insurance, etc.) goes up in price, yet analytical pricing continues to get driven down," noted Dr. George Fernandez, vice president at Phoslab Testing Services Inc. in Lakeland.

For the past several years, several national price indexes have consistently indicated very low—if any—price increases.

But recent price indexes indicate price increases in the general economy that may be soon reflected in lab prices in the next

12 months.

The 90-day payment interval on invoices may also be a victim of the industry's low prices because a fast nickel is worth more than a slow dime.

"Surprisingly this is still a challenge for most labs," said Fernandez. "It is not unusual for a lab to have to wait 90 days or longer to receive payment, which is mind-boggling to me."

Well drillers, as subcontractors in the state Petroleum Restoration Program like labs, have soundly panned the 90-day or longer payment interval in the program.

But earlier this year, drillers reported a closing time gap between completion of service and payment received. Environmental labs may soon experience the same improvement.

**New lab openings?**

Florida has more than 200 certified environmental laboratories but commercial labs represent only about a quarter of that. And that number is not likely to increase any time soon in spite of the good business climate.

Owners of smaller labs that began their businesses decades ago said that the challenges today make it all but impossible for an individual to start a new commercial environmental lab.

But there are exceptions to every rule. PETC's Kreitner, whose lab is only five years old, may be Florida's most recently established commercial environmental lab enterprise.

That distinction surprised her when mentioned during the interview. Part of her secrets for success is a dense professional network built before she opened her lab, a focus on microbiology tests that are needed by her clients, and technically competent client service.

Until recently, her company remained focused on a limited suite of analyses that her clients needed regularly. With the strong economy, she's considering growing.

The persistence of the current U.S. economy is the biggest unknown to predicting continued active business in all sectors of environmental analysis that supports the state's diverse environmental laboratory enterprises.

But another year like the last one will be a very good thing for all labs.

additional power during periods of peak demand.

The modifications will help change the company's fuel mix. According to company data, in 2017, 67 percent of TECO's energy was generated from natural gas, 24 percent was from coal and about nine percent was from other sources, including solar.

In 2023, it will be 75 percent natural gas, 12 percent coal, about seven percent solar and about six percent other sources.

**Solartech Universal expansion.** U.S.-owned Solartech Universal, Florida's only solar panel manufacturer, plans to expand its capacity by 180 megawatts a year at a South Florida facility. Their current 80 MW/year operation is housed in their 80,000-square-foot facility in Riviera Beach.

Solartech hoped to complete an expansion in Puerto Rico, but Hurricane Maria shifted the search for a facility to South Florida.

PV Magazine reported the new production plant will be equipped by Swiss tool maker Meyer Burger. The solar cells are heterojunction, composed of a standard silicon solar cell with thin layer of amorphous silicon layered on top.

To keep pace with demand, SolarTech plans to add second and third shifts at their Riviera Beach facility.

**People news.** The city of Lakeland named its assistant director of water utilities, Bill Anderson, as its new director.

Anderson served in the U.S. Air Force from 1983 to 1987 and obtained his bachelors of science degree from Florida Southern College in 1999.

He will lead the department following the retirement of Bob Conner, who worked for 22 years at the city.

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**NOTES**

From Page 3

Springs Drive south of State Road 434. It closed in 2014.

The property is contaminated with arsenic and pesticides. The cleanup of soil and groundwater is currently estimated to cost \$1.5 million.

Seminole County intends to buy the defunct 100-acre golf course this year for roughly \$4 million and turn it into a public park.

The county will subsequently create a special taxing district to tax Rolling Hills residents over the course of 15 years to cover the cost of the cleanup.

**Tampa Electric to shutter Big Bend.**

Officials with Tampa Electric Co. are acting on their commitment to clean energy and the reduction of the company's carbon footprint by making a significant change to their Big Bend Power Station on Tampa Bay in Hillsborough County.

The utility is modernizing coal-burning Unit 1 to burn natural gas using state-of-the-art combined-cycle technology and retiring coal-burning Unit 2 in 2021.

"This project will improve land, water and air emissions at Big Bend," said Nancy Tower, president and chief executive officer of TECO. "Coupled with our significant increase in solar power, these changes will make Tampa Electric substantially cleaner and greener than it is today."

The Big Bend project is anticipated to cost \$853 million and is scheduled to be complete in 2023.

The resulting facility is expected to be capable of producing 1,090 megawatts.

Big Bend Power Station currently houses four coal-fired units with a combined output of more than 1,700 megawatts. A natural gas and fuel oil-fired peaking unit was installed in 2009 to provide



**USGS**

From Page 16

even though population increased by four percent during the five years assessed.

Nationally, per capita potable water use from public supply systems declined from 88 to 82 gallons per day.

**FEDFILE**

From Page 2

ties more time to implement the new requirements.

The agency also cited approximately \$88 million a year in cost savings under the revised rule.

The EPA press release included two glowing approvals, as the Trump administration frequently provides to justify their moves—one from National Association of Chemical Distributors' president, Eric Byer, the other from the Society of Chemical Manufacturers and Affiliates' lobbyist Robert Helminiak.

Both proclaim the great benefits that the proposed revisions will provide to the chemical industry.

The proposed rule is open for a 60-day comment period that began on June 14.

**NAAQS review.** As a prelude to the periodic review of ozone and particulate matter standards under the Clean Air Act, former EPA Administrator Pruitt promulgated a memo that "commits EPA to begin the next review of the ozone National Ambient Air Quality Standards, NAAQS, so it can finalize any revisions by the Clean Air Act deadline of October, 2020."

It also required the agency to complete its review of the particulate matter NAAQS by December, 2020.

The memo stipulated a policy assessment—"an evaluation of policy implications (that) is intended to help 'bridge the gap' between the agency's scientific assessments, presented in the ISA and REA(s), and the judgments required of the EPA administrator in determining whether it is appropriate to retain or revise the NAAQS."

According to the EPA's announcement of the memo, "(t)his memo ensures that EPA and its independent science advisers follow a transparent, timely and efficient process in reviewing and revising public health- and welfare-based NAAQS."

The real intent, opined by former Deputy Administrator Marcus Peacock, is that "NAAQS process reforms better separate scientific judgments from policy decisions. Setting air quality standards is murky enough without muddying the distinctly different duties of scientists and political appointees and protecting human health and the environment."

The EPA is accepting comments until Aug. 27, 2018.

**Funding for the EAA reservoir.** In a report released in early June, R. D. James, assistant secretary of the U.S. Army for Civil Works, characterized as "feasible" the Everglades Agricultural Area reservoir plan submitted to the Office of Management and Budget.

In the 86-page report entitled "Integrated Feasibility Study and Draft Environmental Impact Statement," James also acknowledged the importance of the project to the restoration of the Everglades.

However, the report was not a carte blanche acceptance of the project. James wrote that "from the geotechnical engineering perspective, a more robust design may be required to address all potential failure modes."

The feasibility study also noted that the "timing and ultimate delivery of project benefits," meaning delivery of water to Everglades National Park, will depend on the state of Florida meeting water quality standards established by the consent agreement that established the Everglades Restoration Plan.

The report also questioned whether additional flows of water diverted from releases to the Caloosahatchee and St. Lucie estuaries are "essential to the restoration of the Central Everglades."

In response, Southwest Florida Water Management District Governing Board

In 2015, domestic water withdrawals by both public and private supply users reached parity at 82 gallons per day. Irrigation withdrawals—all freshwater—increased by just two percent.

By state, California, Texas and Florida ranked first through third place, respec-

tively, in total water withdrawals. Florida's water use is notable because its water withdrawals for electricity generation are almost equal to Texas.

In Florida, however, saline water from coastal lagoons and the ocean is almost the exclusive source of cooling water in this

category.

At least 10 states have much higher water withdrawal rates for irrigation than Florida. In Florida, agricultural uses amount to about 2.5 billion gallons per day, with the remainder used by other irrigation segments, notably, landscape irrigation.

The statistics reported so far by USGS for this year reflect the post-election economic growth. Buoyed by an active economy, water withdrawals may be ticking up again.

Nevertheless, much more efficient cooling water technology for electricity generation is likely to make that sector's demand decrease persistent.

Domestic water use is extremely sensitive to price, according to the University of Florida's Bureau of Economic and Business Research.

As wages and the proportion of people moving up in socioeconomic status has stagnated, a dramatic rise in water withdrawals for domestic potable water does not seem likely based on trends during the last two decades.

The most recent water use data, according to the U.S. Department of Interior, showed a continued effort towards efficient use of critical water resources.

"Water is the one resource we cannot live without, and when it is used wisely, it helps to ensure there will be enough to sustain human needs, as well as ecological and environmental needs," they noted.

Chairman Frederico Fernandez expressed concern that their perspective "was an attempt to establish opportunities for USACE to renege on support for Everglades restoration."

The water management district reiterated its current commitment to restoring at least a semblance of historic water flow through the entire Everglades, which is one function of the proposed EAA reservoir approved by the Florida Legislature in 2017.

To be clear, the agreement between the state of Florida and the federal government to share the cost of the EAA reservoir construction has not formally changed as of early July, 2018.

However, the opportunity to change it after the midterm elections is clearly in play as a result of this review.

**Interior Department provides record PILT money to local governments.** In late June, U.S. Department of Interior Secretary Ryan Zinke announced that the federal government would make a record payment of \$552.8 million in payments in lieu of taxes, or PILT, to local governments

across the country.

PILT payments are made to local governments where federal government owns property or facilities not subject to ad valorem property taxes or other taxes. The intent is to compensate the governments for services provided or that assist the federal activities locally.

The distribution formula established by statute is based on the area of federal land within each county or jurisdiction, and population.

The money distributed is based on \$9.6 billion in revenue collected from commercial activities including gas and oil leasing, livestock grazing and timber harvesting. A part of that \$9.6 billion, but not all of it, funds PILT.

The amount distributed changes from year to year based on acreage data and prior year federal revenue sharing payments made by other programs, of which there are several.

Florida will receive a total of \$6,571,022 based on a total acreage of 2,557,044 acres.

The top three counties in terms of payments were Collier, Monroe and Dade.



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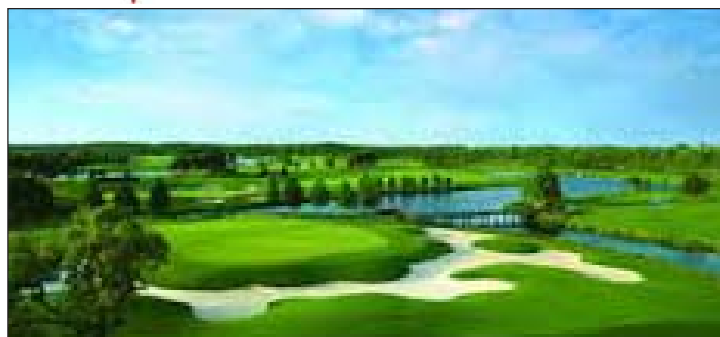
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# EPA finishing up cleanup effort at Tallahassee MGP coal tar dump site

By **BLANCHE HARDY, PG**

The U.S. Environmental Protection Agency is completing a decade-long cleanup project in Tallahassee, the Cascade Park Gasification Plant and Landfill Superfund Alternative Site.

The historic site accepted coal tar from a city manufactured gas plant that oper-

ated between the early 1890s and the late 1950s in downtown Tallahassee. The coal tar contaminated area soils.

"The EPA will issue a proposed plan sometime soon and will accept public comments for 30 days," said Dawn Harris Young, public affairs specialist for the U.S. Environmental Protection Agency's Region 4. "Then, EPA will prepare a record of deci-

sion that will make the final decision and include a response to public comments."

The city conducted a series of environmental investigations at the site beginning in 1985 and extending through 2002, and excavated over 85,000 tons of contaminated soil between 2005 and 2006.

A second removal action phase was undertaken in conjunction with the construction of Cascades Park. Contractors removed an additional 12,500 tons of contaminated soil and constructed a larger impermeable clay pond liner.

The removal action reduced exposure to contaminated soils and removed residual source materials from the aquifer. Ground-

water contamination was also mitigated.

"Once the groundwater met the appropriate cleanup levels in 2017, the site met the criteria for a no further action decision," said Young.

The restoration of the area and creation of Cascades Park has gone well. The park, with its \$6 million in amenities, will serve as a regional recreation center and entertainment green space.

It is also designed to reduce flooding during major storm events.

Cascades Park is part of Tallahassee's largest economic development initiative, an urban redevelopment plant slated for completion in 2020.

## REED

From Page 1

the U.S. Environmental Protection Agency and was responsible for the creation of a number of national parks and wilderness areas, topped by preservation of 80 million acres of wilderness in Alaska.

Reed began his environmental advocacy career in his home state, Florida. He served as an aide on environmental issues for Gov. Claude Kirk for the princely sum of one dollar per year.

His first success was establishing Florida's authority to limit industrial effluent releases and, following that, to end

the sale of state bottom lands.

Reed was instrumental in the effort to prevent the construction of an airport in the Everglades just north of Everglades National Park. He was active in establishing the Big Cypress Swamp and Corkscrew National Sanctuary. He helped stop construction on the cross-state barge canal.

After he left the Interior Department, he returned to Florida to serve 15 years on the governing board of the South Florida Water Management District

At least as notable as his accomplishments were his methods. Reed was able to advance environmental conservation and stewardship under arguably the most partisan and controversial Florida governor of the 20th century.

The same could be said for his work for President Nixon. His successes came not just because of his deeply held environmental ethics. His secret sauce was his diplomatic and negotiation skills. Indefatigable effort played a role when needed.

Reed charmed many a foe until they joined him as a colleague. A lion during the formative years of environmental advocacy, he left a mark without ever using his claws.

"I have seen how things can and should work, and I hold faith that we may find such alliances again," he wrote in his recently released book, *Travels on the Green Highway*. "We must because we can never, never give up the battle. Too much is at stake."

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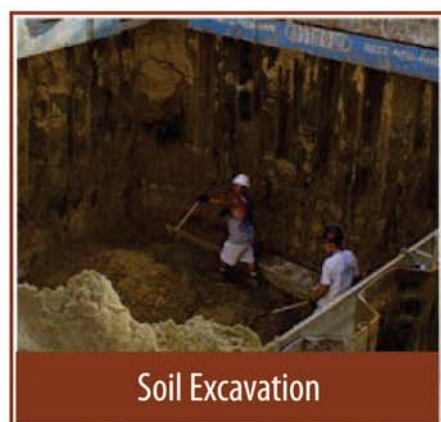
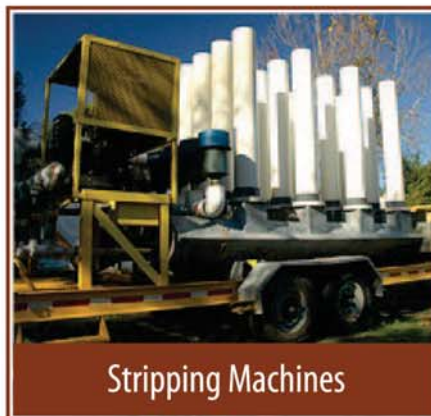


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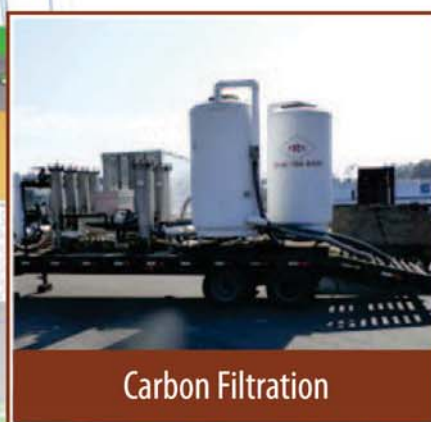
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