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Volume 39, Number 8

State of the lab biz 1, 5, 8

Every August, we take a close look at the state of affairs in the environmental laboratory industry. Our state of the industry piece starts below, reaction to the proposed DOH lab certification rules begins on Page 8 and Travis Wright discusses how labs are adapting to increase the value of their services on Page 5.

In addition, our annual Laboratory Directory begins on Page 5.

Report: Agency budgets 6

The ECOS Green Report on the status of state agency budgets was released earlier in the year. Florida's environmental agencies ranked reasonably well in per capita funding among the nation's environmental agencies.

SW Florida report 9

The Conservancy of Southwest Florida is urging policymakers to take more action to protect the environment in a new report examining water quality and associated issues in Southwest Florida.

Miami landfill conversion 10

The city of Miami is in the process of cleaning up 125 acres on the interior of Virginia Key east of Miami to convert an abandoned landfill there into the city's largest park. The park concept dates back to at least 2010 and a master plan for Virginia Key.

Departments

Calendar	11
Classified Advertising	15
Federal File	2
Florida Notes	3
Water Watch	4

Got a story?

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 or email mreast@enviro-net.com.

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Photo courtesy of Benchmark EnviroAnalytical Inc.

A lab technician with Benchmark EnviroAnalytical Inc. conducts microbiology tests on spill samples for fecal coliform and fecal streptococci. Staff in Florida's environmental labs make significant contributions every day to protect public health and the environment. And while the lab business is good, analytical enterprises face new challenges including the adoption of updated certification standards. See story below.

State of the Industry:

Lab biz solid but faces challenges from new certification standards, reduced monitoring

By ROY LAUGHLIN

Over the past few decades, Florida's environmental laboratories have developed into one of the state's most notable and successful science-technology enterprises.

But labs cannot maintain this status easily. The successful ones must continue to stay on top of advancements in instrumentation, information technology tools and analytical protocols, and at the same time deal effectively with constant pricing pressures.

Recent challenges included the 2008 economic recession, the business consolidation that followed and changing regulations that have reduced requirements for ongoing monitoring.

And this year, uncertainty created by proposed new certification standards are an added concern for many lab officials.

This article reviews the circumstances influencing the analytical laboratory business in Florida and, by extension, its customers and clients.

In early 2017, the Florida Department of Health drafted its Preliminary

Text of the Proposed Rule Development and began circulating it for comment. If finalized, it will update environmental lab certification standards and requirements from the NELAC 2003 standards currently in use to TNI 2016 standards.

While a certification standards update is long overdue, managers in smaller and specialty testing laborato-

ries fear the new plan's requirements will be expensive, perhaps too expensive, for them to implement.

Based on DOH's lab certification list, Michael Graves, quality assurance officer with Benchmark EnviroAnalytical in Palmetto, said he counted a

LABS
Continued on Page 7

Efforts to close Mosaic sinkhole continue with strict DEP oversight

By BLANCHE HARDY, PG

By now, phosphate giant Mosaic Fertilizer LLC expected to have closed the massive sinkhole that opened at their Polk County processing plant last year.

Although the project is making progress, company officials said they need more time to complete the work.

The sinkhole, discovered last August at the company's New Wales plant near Mulberry, is estimated to be over 150 feet wide and up to 300 feet deep, much larger than estimated at the time of the

initial collapse.

Millions of gallons of acidic process wastewater containing sulfate and sodium were discharged into the hole from a pool located on top of a 120-foot-high gypsum stack that collapsed with the sinkhole.

An undetermined quantity of gypsum, potentially containing low levels of radiation, fell into the sinkhole.

This June, Mosaic officials notified the Florida Department of Environmen-

SINKHOLE
Continued on Page 13

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Appeals court blocks EPA suspension of methane standards for oil, gas wells

Staff report

In June, the U.S. Court of Appeals for the District of Columbia Circuit blocked the suspension of methane emissions standards for oil and gas wells.

In mid-April, the U.S. Environmental Protection Agency had announced a two-year suspension of the rule.

The appeals court ruled that the agency had the authority to reconsider the rule, but could not delay its implementation for two years while it rewrote a regulation more favorable to the oil and gas industry.

The rule, implemented in 2016, applies to all phases of the oil and natural gas industry from the well through storage and transmission.

The EPA, along with the American Petroleum Institute, argued that the suspension should not be subject to judicial review.

In its 2-1 decision, the court reminded the agency that it had previously ruled that administratively delaying a rule's effective date is the same as amending or revoking it, and is not supported by law.

The court's decision took issue with some of EPA's testimony. EPA counsel argued that the agency, under the previous administration, failed to consider industry

responses and stakeholder involvement when it decided to include fugitive methane emissions from low production wells in its rule.

In ensuing criticism, the judge's opinion called attention to the "flimsiness" of that claim.

The court's explicit decision will affect not only the EPA, which has proposed rule suspension in other cases (see below), but also many other federal agencies that have used, or have discussed using, suspension to neuter federal rules and regulations.

EPA attempts to extend RMP amendments date. In June, EPA Administrator Scott Pruitt signed a final rule that delayed the effective date of the EPA's Risk Management Program amendments by an additional 20 months.

The agency said that it would like to conduct a "reconsideration proceeding" to revisit issues that may benefit from additional comment.

Pruitt claimed that the agency needs the time to "fully evaluate the public com-

ments raised by multiple practitioners and consider other issues that may benefit from additional public input."

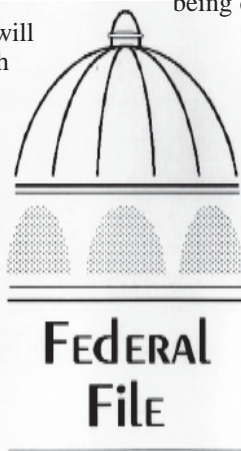
Two industry groups and a coalition of states asked for RMP amendments reconsideration. The delay in implementation is being driven by these three petitions.

The EPA finalized amendments to the Risk Management Program in January, 2017.

The amendments addressed compliance audits, the process hazard analysis process, emergency response drills and preparedness activities, and information sharing with the public and local emergency responders.

Compliance dates for the amendments were four years into the future, so Pruitt's new rule does not change any current practices.

On June 15, the day after the EPA issued its rule to extend, a 13-member coalition of environmental organizations challenged the extension in the U.S. Court of Appeals, D.C. Circuit. It is likely that the EPA's delay authority as discussed in the preceding item will be the basis for the challenge.



More EPA rule delays. On May 31, EPA stayed portions of the 2016 New Point Source Performance Standards for the oil and natural gas industry. The stay was set to last 90 days.

In June, EPA Administrator Scott Pruitt sent letters to governors informing them that the agency was extending the deadline for initial area designations by one year for the 2015 ozone National Ambient Air Quality Standards.

The oil and gas standards, finalized in 2016, include rules on fugitive emissions, pneumatic pumps and professional engineer certification requirements.

The suspension corresponds to President Trump's Energy Independence Executive Order that included specific provisions to review oil and gas rules.

These are two additional rule implementation delays that may fall under the recent U.S. Court of Appeals DC Circuit decision, noted above. The rules considered are similar because both—at least in part—address fugitive emissions from oil and gas production.

The court's decision may have set a precedent that requires the agency to reverse its May 31 announcement and pursue the rulemaking process instead.

The National Ambient Air Quality Standard for ground-level ozone was passed in October, 2015. It lowered the ambient ozone standard from 75 to 70 parts per billion.

The EPA said it was extending the deadline to allow states more time to develop their own air quality plans, and to follow language in the recently-enacted FY 2017 omnibus funding bill under which the EPA will establish an Ozone Cooperative Compliance Task Force to develop "additional flexibilities for states to comply with the ozone standard."

In a press release, EPA said that it was also going to take time to "better understand some lingering, complicated issues so that air attainment decisions can be based on the latest and greatest information."

The agency explained it would further consider the "latest and greatest information" to fully understand background ozone levels, appropriately accounting for international transport and "timely consideration of exceptional events demonstrations."

The press release noted that ozone levels have declined by 33 percent since 1980 but that costs associated with compliance of the recent NAAQS have significantly increased.

It does not however document those cost increases relative to inflation or consider the rule's known health benefits.

EPA approves Lautenberg Act rules. In 2016, Congress updated and expanded portions of the Toxic Substances Control Act to update and quicken the pace of review and testing of chemicals that may pose human health and environmental risks.

The updated rule is often referred to as the Frank R. Lautenberg Chemical Safety for the 21st Century Act.

To mark the first anniversary of the act's passage, EPA finalized two implementation rules and released scope documents for the initial 10 chemicals to undergo risk evaluation.

It also provided guidance documents to external parties to submit draft risk evaluations to the EPA.


One of the two finalized rules, Procedures for Chemical Risk Evaluation Under the Amended Toxic Substances Control Act, established the EPA's process for evaluating high-priority chemicals.

The first stage of the evaluation, the agency noted, may assign chemicals a low priority designation, obviating the need for any further risk assessment. High-priority chemicals will go through risk assessment.


The EPA's final rule clarifies the agency's authority to determine what uses

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FEDFILE
Continued on Page 15

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DEP to issue SRCO for JEA Southbank cleanup work

Staff report

The Florida Department of Environmental Protection determined a large part of JEA's downtown Jacksonville Southbank property to be environmentally sound and stated its intent to issue a site rehabilitation completion order with controls for part of the 42-acre site at 801 Broadcast Place.

The department concluded that JEA has satisfied its site rehabilitation requirements and released the company from any further obligation to conduct rehabilitation at the contaminated site.

The western portion of the property is being treated for arsenic contamination in groundwater that was first discovered in 1995.

DEP said the former site of JEA's Southside Generating Station contained metals, volatile organic compounds, polychlorinated biphenyls and other contaminants.

The cleanup is part of the Hazardous Waste Program administered by the DEP under the Resource Conservation and Recovery Act and the Brownfield Site Rehabilitation Program.

Under RCRA, sites are cleaned up on a property-wide basis rather than focusing on individual areas of concern.

A hydraulic pumping system was installed in 2012 to keep contaminated groundwater from reaching the St. Johns River.

JEA said it has spent more than \$28 million decommissioning the site and cleaning up soil and groundwater contamination stemming from the facility's operation as a fuel oil- and natural gas-fired electric generating system.

A proposed sale of the property is now pending. Investors want to transform the remaining 30 acres into a mixed-use development.

West River development contamination. High levels of vinyl chloride have been detected in groundwater in an area being developed along the Hillsborough River in Tampa.

The carcinogenic chemical is often used to make PVC used in pipes, wire, cable coatings and packaging materials.

The toxins were traced back to a chemical company that once conducted business in the 1500 block of LaSalle Street.

DEP officials said nearby residents are not in any immediate danger.

The contamination will not impact the development plan for West River but is an issue that must be properly addressed.

Mitigation bank permit denied, again. The U.S. Army Corps of Engineers denied a permit for a wetland mitigation bank in Southwest Florida for the second time.

Long Bar Pointe LLLP had applied for a permit for the mitigation bank close to developer Carlos Beruff's proposed Aqua by the Bay development.

The corps concluded that the proposed project could adversely impact seagrasses, the development's proposed lagoon could weaken the shoreline, and an oyster reef restoration area that was permitted in the bank area in 2010 to the Sarasota Bay Estuary Program could be negatively impacted.

Florida panther review. The U.S. Fish and Wildlife Service announced that it will review the status of the Florida panther as an endangered species.

A rebound in the panther population has led to growing calls from hunters and ranchers to take the big cats off the federal endangered species list.

The panther's last status review was announced in 2005 and the decision to maintain the panther's endangered status was announced in 2009.

The Florida Fish and Wildlife Conservation Commission increased its estimate of the Florida panther population to as many as 230 adults, up from 180, most of them in Southwest Florida.

Osceola bans fracking. The Osceola County Commission passed an ordinance prohibiting oil and gas exploration practices that involve well stimulation. This includes the practice known as fracking.

Supporters of fracking claim that it provides a source for affordable energy. But opponents worry about the effects it could have on a community's drinking water.

People news.

The Suwannee River Water Management District Governing Board appointed Hugh Thomas as its new executive director. He succeeds Noah Valenstein who was named as the latest secretary of the Florida Department of Environmental Protection in May.

Thomas has an extensive background in agriculture and environmental resource management including one year as senior project manager in the district's Agriculture and Environmental Projects Division, 14 years as an environmental administrator in the Agriculture and Water Policy Division of the Florida Department of Agriculture and Consumer Services, and 10 years as an environmental manager for

Mactec Environmental Inc.

Pat Barker joined Hull's Environmental Services as emergency response manager in their Panama City office. He will cover the Southeast and Gulf regions working with the company's emergency response team.

Professional services firm Dewberry hired Mike Mathews as senior environmental scientist in the firm's Panama City office. Mathews joins the firm with nearly 12 years' experience in the field of environmental regulation and permitting with the Florida Department of Environmental Protection.

Ivan Hernandez, PLS, joined Cardno as survey manager in its Altamonte Springs office. He has more than 10 years of experience in providing surveying services.

Matthew Hortman, a biologist with the Florida Fish and Wildlife Conservation Commission, received the Florida Department of Environmental Protection's 2016 Resource Manager of the Year award. The reward recognizes the outstanding achievements of people managing state lands to conserve their ecological value.

Florida Notes



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UF Water Institute receives agriculture, forestry sustainability grant

Staff report

The U.S. Department of Agriculture awarded a \$5 million grant to the University of Florida Water Institute to support research and technology development projects in North Florida and South Georgia that ensure the economic sustainability of agriculture and forestry.

The research will help protect water quality and habitat in the springs and rivers associated with the Floridan Aquifer.

The funding will support field experiments in the two states to develop sustainable farming practices that reduce water

and fertilizer use while maintaining profitable crop yields.

Wendy Graham, PhD, director of the institute, said that knowledge gained in field experiments will be translated into interactive computer models to assist in water and fertilizer applications.

Other computer models that may be developed will help predict the impacts of different land use, water use, and agricultural and forest production practices on water quality, water quantity and the regional economy in North Florida and South Georgia.

That information, integrating stake-

holders experience with scientific data, will outline economic and environmental trade-offs as they are affected by climate, land use, agricultural best management practice adoption and water policy options, according to Graham.

UF will take the lead in the effort involving faculty from the UF Institute for Food and Agricultural Sciences, the University of Georgia, Albany State University and Auburn University.

The research team includes agricultural extension service staff that will conduct on-farm demonstrations and assist with the development of smart phone apps to help implement agricultural BMPs.

Extension service personnel will also conduct training programs in Florida and Georgia in support of preferred changes in agricultural production and incentive programs.

The program began July 1 and will continue for five years.

Millions for water projects. The Florida Department of Environmental Protection announced in June that it will award \$61.3 million in loans and grants for 11 water projects in the state.

The loans originate from the state's Clean Water State Revolving Fund and Drinking Water State Revolving Fund.

Most of the projects are drinking water-related, supported by the DWSRF.

Citrus County; the Fairpoint Regional Utility System in Navarre; the cities of Hollywood, Orange City, Punta Gorda, Cape Coral and Fort Myers Beach; Taylor Coastal Water and Sewer District in Taylor County, and Sunrise Utilities in Auburndale received loans or grants.

The loans to the cities of Hollywood and Punta Gorda topped \$21 million. Hollywood will use the money to replace 25 miles of water mains and Punta Gorda will build a new reverse osmosis water treatment plant.

Three of the loans, those to Orange City, \$475,000; Taylor Coastal Water and Sewer District, \$204,000; and Sunrise Utilities, \$500,951, forgive principal repayment and in one case no repayment is required.

Drinking water projects receiving loans include a variety of system improvements including new wells to upgrade water treatment systems, replacement or installation of drinking water lines and mains, and preconstruction planning grants. The amounts of the loans are typically less than the total cost of the projects.

Graceville will use its \$1.1 million construction loan to optimize a wastewater treatment digester to reduce phosphorus levels in the city's wastewater.

Grand Ridge will use its \$50,000 loan to install solar panels at its wastewater treatment facility and lift stations.

Both of these communities received loan forgiveness for the majority of the loan amounts.

SWFWMD cooperative funding workshop. The Southwest Florida Water Management District's Cooperative Funding Initiative program, or CFI, has begun its annual selection process for eligible projects.

The CFI will contribute up to 50 percent of the cost of projects that create sustainable water resources, enhance conservation efforts, restore natural systems or provide flood protection in the district.

In July, the district began reviewing and revising CFI guidelines and began discussions with potential applicants.

On Aug. 3, the district will hold an informational workshop/webinar at their Tampa service office to provide additional information to potential applicants.

The district maintains a web page with further details on the program and a step-by-step guide for developing successful local projects eligible for CFI funding. The

Fiscal Year 2018 timeline is also on this page.

Oct. 6 is the deadline for receipt of applications. Further information is available at <https://www.swfwmd.state.fl.us/business/coopfunding/>.

Judge upholds Silver Springs' MFL. Administrative Judge E. Gary Early upheld the St. Johns River Water Management District's minimum flows and levels rule.

On May 24, Judge Early dismissed a petition by the St. Johns Riverkeeper, Florida Defenders of the Environment, Silver Springs Alliance and Alice Gardner. They had petitioned the court to invalidate the district's emergency MFL rule for Silver Springs.

The rule recently approved by the district allowed them to determine compliance with the Silver Springs MFL based on aquifer elevation levels rather than flow rates at the springs.

The plaintiffs criticized that decision, showing that spring flow runs could drop by as much as 34 percent below average minimum flow rates established by the district and still be in compliance with the original MFL rule.

In a statement on its website, St. Johns Riverkeeper said that the 34 percent flow decline equivalent is equivalent to 141 million gallons per day. That volume exceeds Orange County's daily water consumption.

By changing the interpretation of the rule, the district could continue to approve consumptive use permits that deprive Silver Springs of water—permits that would have been denied in the original interpretation of the MFL rule that relied on actual flow rates.

Water levels in Silver Springs are one third lower than in the 1930s. Activists have consistently argued that the district's MFLs are based on a faulty standard, one based on the contemporary reduced flows.

In his decision, Judge Early noted that the question the proceedings addressed was whether the SJRWMD's decision was arbitrary and capricious. Whether right or wrong, Judge Early ruled that the decision had logic and was therefore legally valid.

Algal blooms in St. Lucie Estuary. Twenty-eight species of cyanobacteria were identified in samples taken from algal blooms in the St. Lucie Estuary during the summer of 2016, according to a study released by the U.S. Geological Survey.

The study confirmed that *Microcystis aeruginosa* was the primary species forming the bloom.

Many cyanobacteria species produce algal toxins at some point in their life cycles or under certain environmental conditions.

Microcystis produces microcystin, a toxin that causes nausea and vomiting. High microcystin concentrations were confirmed in algal mats at the time of the bloom in 2016.


Several species in the 2016 bloom are also capable of producing the liver and kidney toxin cylindrospermopsin, while other cyanobacteria identified are capable of producing two neurotoxins: anatoxin and saxitoxin, the latter a potent toxin.

The finding of multiple toxin-producing species is of interest because of its implications for human health effects.

In a separate study, researchers at Ohio State University found that human populations living in areas with high numbers of blue-green algae blooms exhibited a higher death rate due to liver disease than members of populations elsewhere.

That study demonstrated a correlation, but not a causal relationship, between the algal blooms and incidents of lethal liver disease.

WATCH
Continued on Page 13



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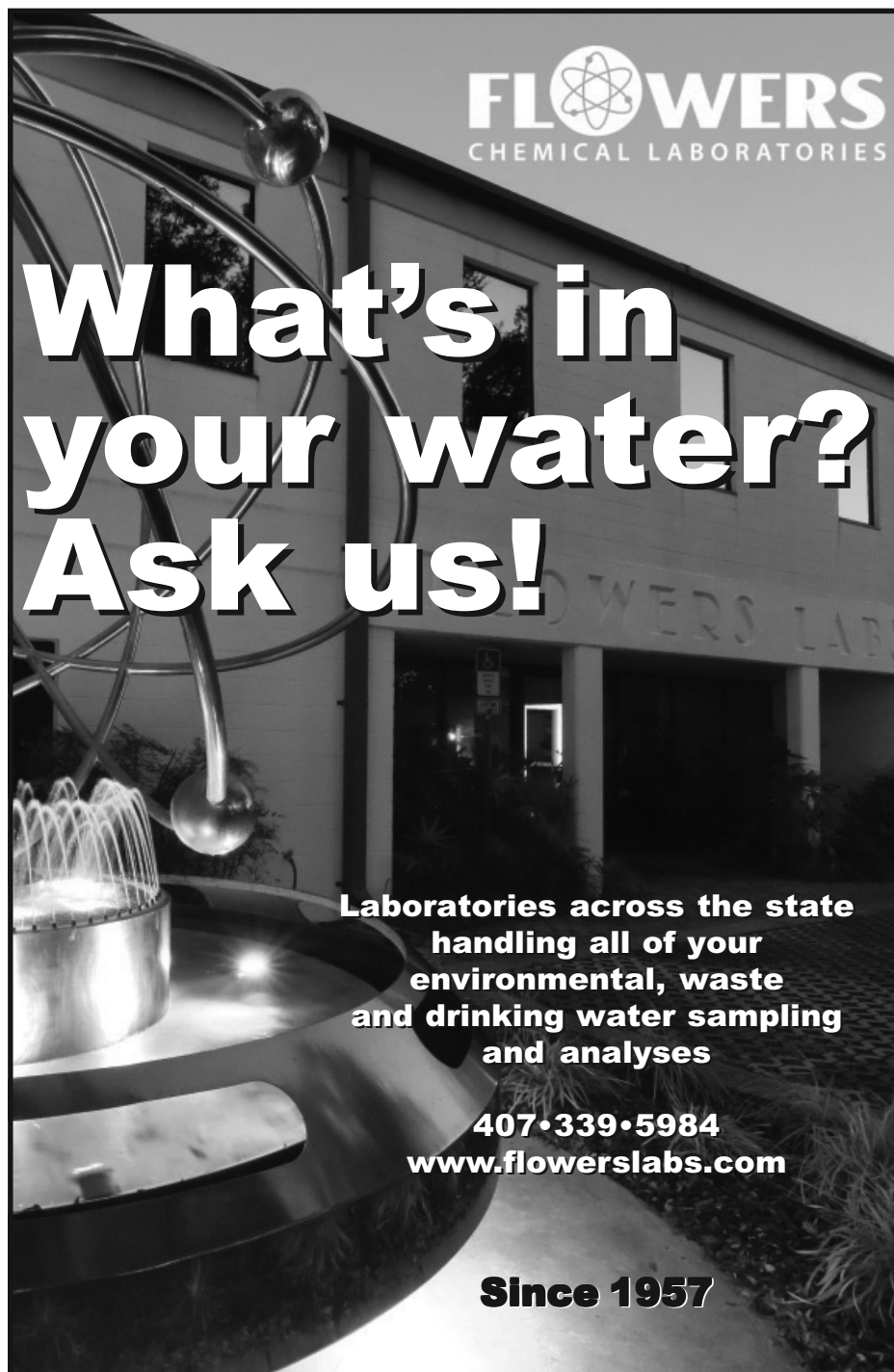
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Environmental labs must adapt to changing client needs to provide value

By TRAVIS WRIGHT

The financial impact of the 2008 recession left many municipal government agencies with significantly reduced operating budgets. Many of these budgets reflected double-digit percentage reductions.

Due to these conditions, municipalities and private water systems were forced to work with the environmental laboratory that quoted the lowest price.

Subsequently, environmental labs were able to adapt by finding more efficiencies through automation, mergers and acquisitions, and even downsizing.

There emerged two completely different philosophies on how to handle the labor force in environmental labs.

Some took the "big box store" approach with acquiring talent. For these labs, this meant hiring less expensive, less experienced talent and then providing in-house training to keep their labor costs low.

Others took the opposite approach.

They sought out the most experienced talent available in each discipline, thereby requiring less training.

Environmental labs are not selling a commodity. They are providing sampling and testing services with college educated scientists—humans that can sometimes produce errors.

The question becomes which companies can provide the highest quality results and fast turnaround times with highly professional personal attention to the client's details.

Some lab procedures and policies on how to address issues or edit reports have become outdated and cumbersome.

A lead operator, engineer or driller that has a reporting deadline on his or her Florida Department of Environmental Protection permit does not often have extra time to wait for addressing various issues that can arise from their labs.

So the laboratories have to adapt.

Recently, a shift in contract negotiations occurred with more stipulations than the usual focus on pricing. Turnaround time, or TAT, is and has always been important with permit deadlines for almost every lab client.

Over the past nine months, the Florida Department of Corrections has put their bids out for laboratory services stipulating pickups with the shortest holding times for fecal coliform samples.

In addition, they have switched from using a single lab to accommodate all their needs to working with several local labs.

They have also added penalties in their contracts for labs not achieving the proper TAT.

Once again the labs have to adapt. The average laboratory client, especially those in engineering and drilling, also demands coordination with the logistics of sampling and the transport of the samples to the labs.

For example, the folks that handle reclaimed water with required seven-days-a-week sampling and pickups know how important both communication and organization are with their contracted laboratory. They might not be able to place a specific dollar amount on it but they certainly understand its value.

The U.S. Environmental Protection Agency in Cincinnati, OH, and several cities and counties here in Florida now have a blind proficiency testing, or PT, passing rate requirement on their bids and contracts.

This provides a quantifiable quality measurement element to their evaluations.

The difference between a lab with an 80 percent PT passing rate versus a 90 percent PT passing rate when there are 1,000 samples a year becomes 100 more mistakes or issues a year for the client to address.

In many cases, it will depend on fines

Specifier guest column

WRIGHT
Continued on Page 6



Environmental Laboratories Serving Florida - 2017

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
Advanced Environmental Laboratories Inc. 6681 Southpoint Parkway Jacksonville, FL 32216 (904) 363-9350 • Fax: (904) 363-9354 Walter Kronz, Vice President wkronz@aellab.com www.aellab.com	1) Six 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: 120 Engineers/Scientists: 70 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) 23 years 4) Altamonte Springs, Fort Myers, Gainesville, Miramar, Tallahassee, Tampa
Benchmark EnviroAnalytical Inc. 1711 12th St. East Palmetto, FL 34221 (941) 723-9986 • Fax: (941) 723-6061 Dr. Dale Dixon, Laboratory Director dale.dixon@benchmarkea.net www.benchmarkea.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 and STORET reporting 3) 25 years
COLUMBIA Technologies 1795 Cogswell St. Rockledge, FL 32955 (888) 344-2704 • Fax (410) 536-0222 Melanie Penny, Lab Manager Robert George, Lab Director info@columbiatechnologies.com www.columbiatechnologies.com	1) Certified mobile laboratories specializing in GC/MS 8260 volatiles, 8021 volatiles, BTEX, gas and diesel screening, FLPRO, TPH, UVF/TPH, XFR, field screening 2) Soil, water, soil gas samples 3) Total: 12 Engineers/Scientists: 12 4) MD	1) Certifications: NELAC, DoD ELAP certification, ISO 17025, FL/NC/VA 2) Direct sensing technologies including MIP, HPT, LIF 3) 19 years 4) None
ESC Lab Sciences 12065 Lebanon Road Mt. Juliet, TN 37122 (941) 525-8577 • Fax (615) 758-5859 Rick Pickett, Florida Sales Representative rpickett@esclabsciences.com www.esclabsciences.com	1) 100,000 sq. ft. facility. On-line web reporting and custom reporting tool allowing one to compare results to regulatory levels. Only Florida lab approved for 3511 (reduced volume sampling) 2) GW, SS, DW, RCRA, UST, air, micro, IH, radiochemistry 3) Total: 284 Engineers/Scientists: 130 Technicians: 75 4) TN	1) DoD-ELAP, NELAP, ISO 2) ESC will reprint COCs and labels, and deliver the kits to your office or site 3) 47 years 4) Lake Worth, Miami, Jacksonville, Orlando, Tampa, Tallahassee, Fort Walton Beach, Pensacola
Flowers Chemical Laboratories Inc. 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 defensible data in organics, inorganics, metals, microbiology and nutrients. ADAPT reporting, field and courier services. PhD chemist on staff. 2) All water matrices, soil, sediment, waste, oil and SPLP/TCLP 3) Total: 52 Engineers/Scientists: 36 Technicians: 16 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) 60 years 4) Port St. Lucie, Madison, Marathon in the Florida Keys
FTS Analytical Services dba XENCO Laboratories 5675 New Tampa Hwy Lakeland, FL 33815 (863) 646-8526 Eduardo Builes, PhD, CEO eduardob@ftsanalytical.com www.ftsanalytical.com	1) All environmental analysis for water, drinking water, soil, hazardous waste and air 2) Water, soil, drinking water, waste and air 3) Total: 30 Engineers/Scientists: NA Technicians: NA 4) FL	1) NELAP, FL DOH, ELAP, MWBE. DOT, MWBE, DoD 2) Mobile on-site lab services 3) 26 years 4) NEW full service laboratory facility is now open, located at 1412 Tech Blvd., Tampa, FL 33619. Additional offices in Orlando, Jacksonville, Lakeland and Tallahassee
Jupiter Environmental Laboratories Inc. 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) 22 years 4) Tampa, Miami
Marinco Bioassay Laboratory Inc. 4569 Samuel St. Sarasota, FL 34233 1-800-889-0384 • Fax (941) 922-3874 Jason Weeks, President weeks@biologylab.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) 27 years

ECOS Green Report details current status of environmental agency budgets

By **BLANCHE HARDY, PG**

According to the ECOS Green Report on the status of state agency budgets released earlier this year for 2013 to 2015, Florida's environmental agencies ranked high in per capita funding among the nation's environmental agencies. Florida stands out as the leader in funding among the Southeast States.

Florida received funding of approximately \$65.15 per person in the two-year budget period assessed. The state's environmental budget as calculated for the report was composed of approximately 20 percent general funds, 20 percent federal funds and 60 percent other/fees.

The greatest per capita funding was provided in Hawaii at \$199.69 per person in 2015. Alabama received the lowest per capita funding of the entire study group at \$10.85 while Georgia received slightly more than Alabama at \$13.16 per person.

The situation in Alabama may be even worse than the study indicates. A signifi-

cant portion of the Alabama Department of Environmental Management's budget, over 60 percent, is generated through the collection of fees.

In 2016, ADEM was required by the state Legislature to transfer \$1.2 million in funds collected through scrap tire and solid waste disposal fees into the state's general fund.

On a whole, the budgets of the 48 reporting states rose from \$12.2 billion in 2013 to \$14.9 billion in 2015, a 23 percent increase. However, a substantial portion of that increase can be attributed to an increase of 69 percent in California's budget over the reporting period.

Federal funds represent a significant revenue source for state budgets. Funding is provided by the U.S. Environmental Protection Agency to enforce national environmental laws such as the Clean Air Act and Clean Water Act at the state level.

Federal funding support to the states decreased by three percent, dropping approximately \$64 million over the two bud-

get periods evaluated, unless California is counted. With California, federal funds slightly increased in the first budget year from \$2.75 billion to \$2.87 billion and then decreased from \$2.87 billion to \$2.83 billion in the second.

The Trump administration's proposed 31 percent cut in EPA funding would likely include significant cuts in funding to states.

EPA issued \$21 million in multipurpose grants under the Consolidated Appro-

WRIGHT From Page 5

or the time it takes to correct the issues in determining if the client chooses to seek another laboratory.

Experienced operators, engineers and drillers are placing more value on those labs that listen and react to issues right away.

They do not want the problems to grow bigger and more expensive over time.

More than five water systems in the last six months have noted that the second low-

priations Act to assist states, tribes and territories with the implementation of environmental programs in 2016.

States use the funding to support activities such as regulating air pollutants, addressing climate change impacts, addressing water pollution and managing hazardous waste.

The loss of federal funds would curtail many permitting and enforcement activities in the states, according to the report.

est quote turned out to be the best option for them, recognizing the value of a lab's work over bottom-line pricing.

Fortunately, with the economy rebounding and drillers back at work, the state's environmental labs can look forward to growth in the year ahead and will continue to adapt accordingly.

Travis Wright is business and field services manager for Flowers Chemical Laboratories Inc. headquartered in Altamonte Springs. He can be reached at travis@flowerslabs.com.



Environmental Laboratories Serving Florida - 2017

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
Microbial Insights 10515 Research Drive Knoxville, TN 37932 (865) 573-8188 • Fax (865) 573-8133 Dora Taggart, Director dtaggart@microbe.com www.microbe.com	1) Environmental microbiology/biotechnology laboratory specializing in molecular biological tools (DNA & PLFA) such as qPCR quantification of <i>Dehalococcoides</i> 2) Almost any matrix (soil, groundwater, sediment, biofilms, bio-trap samplers, filters) 3) Total: 19 Engineers/Scientists: 6 Technicians: 8 4) TN	1) NA 2) Innovative bio-trap samplers, consulting services and molecular biological analyses 3) 25 years
Pace Analytical Services Inc. 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) 39 years under same ownership 4) Labs in Tampa, Ormond Beach, Pompano Beach and Miami Lakes
Palm Beach Environmental Laboratories Inc. 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) Volatiles, semi-volatiles, pesticides, FL PRO, metals by ICP/MS and TCLP/SPLP on 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; SBE for SFWMD, 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) 12 years
Phoslab Testing Laboratories 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: 25 Engineers/Scientists: 11 Tech/Admin: 10 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) 51 years 4) Serving greater Central Florida
Professional Environmental Testing and Consulting LLC 4650 SW 51st St., Suite 702 Davie, FL 33314 (954) 440-3537 • Fax (754) 223-3874 Carol Vassell Kreitner, Owner/Manager petc702@comcast.net www.petc702.com	1) Water testing (microbiology, wet chemistry) 2) Drinking water, wastewater, groundwater 3) Total: 5 Engineers/Scientists: 1 Tech/Admin: 2 4) FL	1) NELAP, FDOH #E861109, Minority business certification 2) Lab chemical sales - SE FL Coop Bid #14-57 3) 4 years
Sanders Laboratories Inc. 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, 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) 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) 26 years 4) Two locations: Sarasota and Fort Myers
SGS Accutest 4405 Vineland Rd., Suite C-15 Orlando, FL 32811 (407) 425-6700 • Fax: (407) 425-0707 Caitlin Brice, M.S., Laboratory Director www.accutest.com	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 3) 22 years
TestAmerica Laboratories Inc. 6712 Benjamin Road, Suite 100 Tampa, FL 33634 (813) 885-7427 • Fax (813) 885-7049 Aaron Ben David, Account Executive aaron.bendavid@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: 97 (FL) Engineers/Scientists: 35 (FL) Tech/Admin: 35 (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 dioxins, PFOA/PFOS, Methyl Hg, ISM, LEAF methods, Coal Ash-CCR, air toxics (VI), As & Se speciation, ind. hygiene, explosives, GIS Key, EQUIS, CLP 3) 26 years 4) Labs: Pensacola and Tampa. Services centers: Fort Lauderdale, Orlando, Jacksonville and Tallahassee

LABS

From Page 1

total of 347 certified labs in Florida.

Many of them, 152, are not commercial labs. About two thirds of non-commercial labs are in-house utility laboratories. The next largest category is environmental-pollution control labs with counties. DOH operates a handful of labs and the remaining labs are operated by federal and state agencies, and universities.

Florida has 74 commercial environmental labs principally located in the state, according to Grave's count.

In addition, 104 more labs certified in Florida are located out of state with no, or limited, presence here.

Continuing consolidation

Many of Florida's commercial labs have operated for three decades or more.

They populated the state starting in the late 1970s following the formation of the U.S. Environmental Protection Agency and passage of the Clean Water Act, Safe Drinking Water Act and other landmark environmental laws.

These laws defined stewardship of public health and environmental resources and depend a great deal on environmental laboratory testing to accomplish their mission.

In those two first decades, Florida was an open frontier where local small environmental labs settled into virgin territory and got on with the business at hand.

Laboratory consolidation accelerated noticeably during several recessions, especially the last. It is still occurring, but those we interviewed said the pace of consolidation has slowed from its peak in 2010.

As small and midsize laboratories close or are acquired by competitors, clients experience reduced choices and—sooner or later—higher prices.

That no new laboratories have been formed in the state recently is of concern to several lab officials we interviewed.

"I know of no new 'from-scratch' labs starting up," said Frank Risk, president and laboratory director of Diversified Environmental Laboratories Inc. in Jacksonville. "It will affect the customer in the long run, as they will have fewer options."

Dr. Jefferson Flowers, president of Flowers Chemical Laboratories Inc. headquartered in Altamonte Springs, echoed this observation in similar terms.

Flowers pointed to public utilities and cities as the two most significant lab client groups affected by the declining number of environmental lab choices.

Reduced regs, reduced opportunities

During recent years, the number and type of monitoring requirements for permit holders have decreased at the state level. The prevalent pattern is reduced testing frequency from quarterly and semiannual to annually.

Fewer required tests has negatively impacted analytical labs.

The required frequency of some tests waned as DEP relaxed requirements. For example, fewer required tests at closed landfills has resulted in a reduced workload when compared to prior years.

"But the worst is over," said Flowers. "I think we're at a stable point now."

He said he would like to see some of the attenuated monitoring requirements, particularly for drinking water, revisited.

Jason Weeks, president of Maricco Bioassay Laboratory Inc. in Sarasota whose lab specializes in bioassays, voiced similar concerns. But he noted that he has picked up some work as other labs have closed their doors.

Weeks said that at one time the state had six commercial bioassay laboratories in operation. That number halved a couple of years ago, and may now be down to just two bioassay labs in the state.

Rule reduction at the federal level—promised but not yet implemented—may also accelerate the trend toward less work for environmental labs.

Risk said that he could see the workload decreasing if the Trump administration significantly cuts monitoring and compliance requirements that require environmental lab services.

Employees, recruitment, wages

Most lab officials said they had little trouble finding qualified people, but are

now faced with having to replace long-term employees that are retiring.

In Florida, the vast majority of laboratory technical staff has at least a bachelor's degree, and each lab had several employees with postgraduate degrees.

Dale Dixon, PhD, president and laboratory director at Benchmark EnviroAnalytical, in discussing the educational requirements for environmental lab personnel noted that his lab's proximity to college campuses has been advantageous.

He said that Benchmark has several colleges close by and that one—the State College of Florida, Manatee-Sarasota—has an excellent biotech program that provides candidates well trained for hands-on lab work.

"We don't have difficulty (hiring)," said Weeks. "We take in people with a science degree and train them from scratch. A new technician starts off doing support work."

Flowers said that replacing staff at his lab involves an apprenticeship period of at least several months so that new hires can learn to operate specialized equipment, follow quality control procedures, acquire familiarity with the laboratory information system and develop other skills specific to analytical functions.

In spite of the specialized nature of environmental laboratory employment, the consensus is that wages continue to be flat since the recession ended in 2011 or are increasing slightly above the inflation rate.

The scientific and technical positions are thus no different than most other areas of the economy outside of finance, IT and biomedicine.

Instrumentation and technology

"We live in a stodgy world when it comes to techniques," said Flowers. "The EPA is the gatekeeper for technology, and they're slow to make changes."

He backed these statements up by describing his experience in getting a new chemical oxygen demand analyzer certified for use in his lab. He expects it to take up to two years and a "huge effort by the manufacturer" and his lab along with eight other laboratories participating in the validation exercise.

The cost of new instrumentation can be a significant financial drag on environmental labs implementing new technologies. A new liquid chromatography mass spectrometer mass spectrometer, LC/MS/MS, could cost a lab as much as half a million dollars, Flowers said.

Dixon said that most environmental labs, including his, maintain their instruments and continue to use them effectively even as equipment manufacturers promote upgraded models still dependent on established separation, detection and quantification technologies.

Given new equipment costs, laboratory

practitioners see little reason for environmental agencies to change regulations that require more frequent major equipment purchases unless they also provide unique capabilities, lower detection limits or significantly increased efficiency.

Flowers noted that the laboratory information management systems, in contrast to the equipment itself, is one aspect of laboratory automation and management that requires constant tweaking. He said that he had one person working almost full-time on his LIMS.

Added capability, instrument compatibility, efficiency, data portability, and long-term data maintenance and storage, continue to give an edge to labs that embrace the most capable LIMS.

Managing change

Overall, Florida's environmental lab industry seems to be in good shape thanks to an improving economy. But the enterprise faces two challenges in the near term.

One is the extent that reduced monitoring and permitting requirements will have on lab clients and the business they bring to labs. Much change has been promised by the Trump administration but little has yet happened.

The second item of concern is the economic impact that new lab certification standards will have on environmental labs, especially the smaller operations.

Either one or both of these challenges could result in consequences for individual labs and lead to further consolidation.



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Proposed DOH rule sparks uncertainty for environmental labs

By ROY LAUGHLIN

In February, the Florida Department of Health began new rule development for environmental lab certification standards and fees when it released its Preliminary Text of the Proposed Rule Development for sections 64E-1.0015 through 64E-1.107.

On the surface, the revised rule appears to have only a few significant changes. But those changes have Florida's environmental laboratory officials sitting up and taking notice.

Significant changes

The proposed text includes a number of updates to rule language, mostly minor with respect to laboratory operations.

The three provisions that directly affect laboratory operations are slightly reduced certification fees, new and modified requirements for site inspections, and the adoption of 2016 certification standards from The NELAC Institute.

Certification fees

The new rule proposes lowering annual certification fees slightly.

A laboratory seeking certification in one category would pay \$400 annually down from the current \$500. The \$100 reduction would apply to each of up to three

category certifications. For four category certifications or more, the price would be \$1,600 rather than \$2,000.

Examples of categories include chemical testing, asbestos testing, toxicity testing and microbial testing. Within a single category, there may be multiple separate procedures that labs perform for their clients.

Laboratory managers we spoke with said they would like to see DOH's charges reduced much more.

Dale Dixon, PhD, president and lab manager for Benchmark EnviroAnalytical Laboratory Inc. in Palmetto, in written comments to DOH, asked for annual fees to be reduced to \$125 each for one to three categories and to a flat \$500 for annual certification in four or more categories.

Not surprisingly, other lab managers we spoke with preferred Dixon's proposed fee reduction compared to those in the PTPRD.

They said that because DOH has handed off so much of the responsibility for lab certification oversight, the current fees paid to them are simply not justified.

"All they (DOH) do is send us a piece of paper," said Jason Weeks, president of Maringo Bioassay Laboratories Inc. in Sarasota.

Proficiency testing, site inspections

Lab officials also criticized the proposed certification fees because they now pay for twice-annual proficiency testing, and also bear the cost of third party laboratory site inspections that can amount to thousands of dollars per year.

And if DOH staff has to make a visit to a lab, the department assesses the travel costs to the lab.

In comments made in past years, lab managers said they preferred to see proficiency testing reduced from twice a year to once a year for each of the analytical procedures the laboratory offers. However, the draft rule maintains the twice-a-year requirement.

DOH also proposed to modify some on-site inspection requirements for labs. Site inspections must occur at least once every two years. The inspections may be done by DOH or by approved third-party inspectors. In either case, the labs must pay the travel expenses and lodging costs for the inspectors.

DOH added a new provision in the draft rules that may increase site visit requirements. All significant changes relevant to a lab's certification are to be reported to DOH's Bureau of Public Health Laboratories within 30 calendar days after the

change.

These include, but are not limited to, changes in commercial or ownership status, top management and key personnel, resources and premises. Other changes may also, at DOH's discretion, be grounds for a site visit.

Site inspection costs are significant for analytical labs.

Dixon noted in a letter to DOH through his lawyer, Jeb Branham Esq. with the Law Offices of Jeb T. Branham in Jacksonville Beach, that he formerly paid DOH \$7,500 for annual certification that included the annual site inspection before the state authorized the third party inspections.

Now, Dixon has a contract with a third-party inspector for which he pays \$11,000 for two years of coverage.

In the letter, Dixon asserted that DOH currently accredits only nine third-party inspectors and in practice—due to inspector scheduling and logistics conflicts—Florida labs generally have a choice of fewer available inspectors.

He noted that there is only one Florida-based site inspector, which results in higher travel costs to Florida labs.

Dixon asked DOH to increase the number of approved inspectors from nine to 15 and to ensure that at least half of them are based in Florida.

Certification standards

The preliminary text of the laboratory certification standards proposes to adopt the 2016 TNI standards. In addition, it includes the continued use five subsections from the NELAC 2003 Standards and one standard from the TNI 2009 Standards for Toxicity Testing.

Out-of-state laboratories with NELAC certification have an exception under the proposed rule: they may apply for reciprocal certification provided that "the laboratory is certified by a National Environmental Laboratory Accreditation Program Accreditation Body for those fields of accreditation in which the laboratory is requesting certification pursuant to this rule."

Uncertainty, increased costs

Although costs and site inspections are important components of the new rule, adoption of soon-to-be-finalized 2016 TNI certification standards is the most significant provision of the proposed rule. It affects all day-to-day operations in an analytical laboratory.

Comments about the proposed standards ran the gamut.

"I don't understand why we can't keep standards the way they are," said Maringo's Weeks. "We do good work under the old standards."

At the other end of the spectrum, Walter Kronz, vice president of Advanced Environmental Laboratories Inc. headquartered in Jacksonville, endorsed the changes.

"Think of the advances in medicine, cell phones and TVs in the past 20 years," said Kronz. "And then ask yourself: Why should labs operate on rules based on science almost 20 years old?"

"In our view, the 2016 standards are just an evolution of QA/QC to keep up with advancing science and technology."

Those who have reservations about the new standards are primarily influenced by the uncertainty of the cost of compliance.

"The adoption of these TNI standards will require each commercial and governmental laboratory to hire approximately one new quality control employee at an approximate cost of \$100,000 annually for wages and overhead," wrote Dixon in his letter to DOH.

He asserted that the increased costs could drive many smaller labs out of business. The result would be hundreds of unemployed people, and a dozen large analytical laboratories serving the Florida market, not all of whom would be based in Florida.

Jefferson Flowers, PhD, president of Flowers Chemical Laboratories Inc. headquartered in Altamonte Springs, agreed that compliance with specific details of the

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CERTIFICATION
Continued on Page 12

Conservancy releases report on water quality, other issues of concern in Southwest Florida

By PRAKASH GANDHI

An environmental group is urging policymakers to take more action to protect the environment in a new report examining the state of water quality and other environmental issues in Southwest Florida.

The report from the Conservancy of Southwest Florida said the region hosts some of the most productive estuaries in Florida where many species of wildlife, plants and aquatic life rely on the area where freshwater meets saltwater.

But some parts of the region are experiencing major issues that must be addressed, said the group, which assigned environmental health letter grades in each geographic area studied for the report.

The conservancy's Estuaries Report Card compiled information from many sources using consistent indications and converted the information into grades that represent Southwest Florida estuarine health.

One grade is for water quality, such as the presence of nutrients, metals and bacteria in the water. Another grade is for wildlife habitat, which includes preservation of mangroves and wetlands, plus the acquisition of conservation lands.

Worst off are the Naples Bay watershed and the Caloosahatchee River basin from Lee County's coast to near Lake Okeechobee. These watersheds received a D- grade, both in preserved habitat and water quality.

Best off is the Ten Thousand Islands region, stretching from Collier County's coast through vast preserves into southern Hendry County. It received an A+ for preserved habitat, but a C+ for water quality. The most common water quality grade for estuaries and watersheds in Lee and Collier counties was a D or D-.

Collier and Lee county voters, like others across Florida, overwhelmingly embraced Amendment 1 in 2014, calling on lawmakers to increase land acquisition using taxes collected from property transactions.

"Each estuary has different stresses impacting it," said Marisa Carrozzo, a senior environmental policy specialist with the group. "There are a lot of pollution problems and development pressures, as well as a lot of hydrologic alterations."

She said it is very important to protect the region's estuaries that have major economic impacts and provide recreational opportunities for residents and tourists.

The conservancy recommends that local, state and federal decision-makers and agencies implement and enforce policies and regulations to protect critical wetlands and flow-ways.

In addition, the conservancy recommends improving the standards of review for projects impacting wetland and wildlife habitat and increasing protections for wetlands.

In 2016, the Florida Legislature committed some \$200 million for Everglades protection under Legacy Florida and this year added plans for a water storage reservoir south of Lake Okeechobee.

To adequately protect and restore water quality, the conservancy recommends effective source control to treat water on-site, protective and enforceable water quality standards, protective local stormwater and fertilizer ordinances, strict adherence to TMDLs and implementation of best management practices.

In addition, the group recommends the re-initiation and adoption of an updated and effective statewide stormwater treatment rule.

Pollution should also be controlled at the source. The group said this is the cheapest and most effective way to protect water quality. Adequately treating water on-site—whether it is urban or agricultural runoff, or discharges from wastewater treatment plants—prevents pollution from entering waterbodies.

In addition, state government and local jurisdictions should prioritize funding for water quality data collection and as-

essment to identify water quality problems quickly and accurately.

Existing water quality standards should not be weakened, the report said.

In addition, the enforcement of standards through effective permit limits, stormwater management and best management practices are all critical to protect

water quality.

Carrozzo said that while the report focused on Southwest Florida, many of the issues raised are pertinent across the state.

"A lot of the recommendations that we made apply across the board," she said. "Protecting environmentally sensitive land, comprehensive water quality monitoring—all of these things are important across the state."

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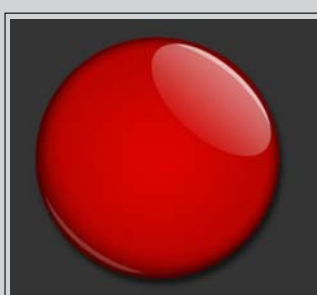


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Central Florida air quality remains good despite drought, wildfires

By PRAKASH GANDHI

Orange County is making steady improvements in air quality despite a report from federal environmental officials that painted a gloomy forecast of the region's air.

The recent report by the U.S. Environmental Protection Agency warned that Orlando's air could be a risk for the young and old, and those with health issues.

The report was triggered in part by the relentless drought that plagued Central Florida earlier this year. Until the recent summer rains, Orlando experienced one of the driest years on record.

Heat and sunshine worsen smog, which draws ingredients from fuel vapors, car exhaust and industrial emissions.

But a top air quality official said that Orange County is making strides in improving its air quality.

Renee Parker, air quality supervisor at Orange County's Environmental Protection Division, acknowledged that the drought has had an impact on particulate matter levels.

The high temperatures, relentless sunshine and non-stop wildfires have combined to increase air pollution.

But Parker said that, based on air quality gauges, the region's air is good overall.

She said that air quality index values are broken down by ranges and colors with 0-50 being good, or green; 51-100 moderate, or yellow; and 101-150, or orange, which means the air is unhealthy for elderly, young people and those with asthma.

If the air quality falls in the 151-200 range, or red, the air is unhealthy for all groups.

"We have had a few yellow days and rarely have had an orange day," Parker said. "The last time we had a red day was in 2007."

"The air quality in this area is very good. The crosswinds from both coasts

AIR
 Continued on Page 16



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Miami cleaning up former landfill on Virginia Key for use as park

By ROY LAUGHLIN

By 2020, 125 acres on the interior of Virginia Key east of Miami will be converted from a contaminated abandoned landfill to Miami's largest park.

The concept of the park dates back to at least 2010 and a master plan for Virginia Key.

Conversion from abandoned landfill to urban park will proceed in two phases. Site remediation, now underway, is first. Park construction will follow.

The city of Miami used the site as a landfill for biosolids from the adjacent wastewater treatment plant and for municipal wastes.

It served in this capacity from 1961 through the mid-1970s, eventually filled to a height of about 30 feet before it was closed in 1977.

In 1980, the city capped the site with porous soil, but did little else in terms of site remediation until recently.

Efforts to return the site to contemporary beneficial use have been underway in stages for several years.

Between 2009 and 2014, environmental consultants hired by the city installed 37 monitoring wells, collected 96 soil samples by boring and used ground-penetrating radar and seismic testing to char-

acterize the distribution and density of the waste and bedrock.

Sewage sludge decomposition is still producing significant amounts of ammonia that is present in groundwater beneath the site.

In addition, anaerobic biodegradation produces or could produce significant amounts of methane gas that will eventually escape to the atmosphere.

One of the borings indicated a hydrocarbon-contaminated hotspot, perhaps due to inappropriate disposal of waste oil.

The volume and extent of waste on the site makes excavation and removal impractical.

With that information in mind, Miami-Dade decided to cap the landfill site with two feet of clean limestone soil, provided from the Port of Miami expansion project several years ago.

Port construction spoils were stored on site and capping commenced this June.

The capping will prevent rainwater from percolating into the landfill strata. Stormwater will be drained to the perimeter of the limestone cap and then managed in the usual way as runoff.

The city will sink recovery wells and dispose of the ammonia-laden groundwater through a deep disposal well at the city's adjacent wastewater treatment plant.

"We're doing the groundwater pumping for aquifer assessment," said Wilbur Mayorga, PE, chief of the Environmental Monitoring & Restoration Division at the Miami-Dade County Department of Environmental Resource Management. "We don't have a final number of wells at this time."

Mayorga explained that a similar system installed at Biscayne Landing has 31 wells that recover about one million gallons of groundwater per day. He said he expects Virginia Key to be similar with multiple recovery wells and perhaps a million gallons per day in withdrawals.

The city has no plans to recover the methane, but the remediation plan advises that buildings constructed on the site include appropriate ventilation to prevent indoor methane accumulation.

In mid-July, the county continued to spread the port's dredge spoils on the landfill to form the 20-inch cover.

Since the first soil cap was installed in the 1980s, settlement and erosion have created an uneven soil cap depth. The current capping effort will restore the desired depth.

Mayoraga emphasized the need for continuing maintenance.

While he said it is thought that most of the settling has occurred over the past 35-

40 years, the county will actively maintain the soil cap, including controlling erosion caused by stormwater runoff.

The plan underway includes a series of swales to keep all stormwater on site. Excess stormwater will be sent down drainage wells to a depth of about 100 feet, avoiding drainage to Biscayne Bay.

When soil capping and landform reshaping is complete, the site could be covered with vegetation of natural hammock trees and plants, or grass could be planted and the site used for recreation.

The city owns the site and will make the decision about its future use.

The remediation effort is expected to take up to 18 months, giving city officials plenty of time to further develop specific plans for the new urban park.

Those plans will probably involve multiple uses. Part of the site includes a small remnant of the original hammock that covers the entire island. Parts of those areas are used by bicyclists for off-road cycling.

The southwest corner of the land contains several acres of mangrove swamps. A beach with a seawall is now used by kayakers and paddle boarders.

In addition, the site is adjacent to a couple of swimming beaches. On the west is Miami's former Marine Stadium, now used as a site for the annual Miami Boat Show. Parking for these facilities may be part of the development plans.

Over the next 18 months, city officials are expected to conduct public meetings to flesh out final design plans for the city park.

Miami officials have a lot of work ahead to design a park that will include a mosaic of facilities and park amenities to serve city residents' diverse uses.

Brownfield grants awarded to five Florida communities

By PRAKASH GANDHI

Five Florida communities are receiving a financial boost in their efforts to redevelop brownfield sites.

The five are among 172 across the country to receive funding from the U.S. Environmental Protection Agency for redeveloping vacant and unused properties.

In DeLand, a \$400,000 grant will be used to clean up the 20-acre former Needle Park parcel at 1777 Langley Avenue and a 70-acre Navy dump parcel at 163 Old Daytona Road.

The grants will help redevelop the city-owned sites at the DeLand Municipal Airport, said Belinda Williams-Collins, senior planner and brownfield project manager for the city.

Years ago, one of the sites was used as a Naval Air Station.

"A lot of hazardous materials were dumped there," Williams-Collins said. "These include tires, glass and a tar-like material believed to be from a former incinerator."

At the Needle Park site, medical waste including syringes and hypodermic needles were dumped.

Both sites have been vacant and unused for many years.

"For want of a better word, these sites have been forgotten," she said. "There has been no reason for them to be cleaned up."

Recently, there has been increasing interest in new development at the airport, she said.

"The airport was a good candidate for economic development because there are already many businesses out there," she said. "It's a regional center for economic activity. As a result, these sites have come into focus as potential areas for development."

The Needle Park site is close to a sports complex, and once the site is cleaned up, the city is planning park upgrades.

The other site will be turned into a

GRANTS
Continued on Page 11



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- Chlorinated solvents, NAPLs
- Emerging contaminants (1,4-dioxane, PFCs, pharmaceutical personal care products, etc.)
- Remedial system optimization
- PRP case studies: Assessment and remediation within the state PRP—tools and techniques for ATC success
- Assessment and remediation within the Florida Drycleaner Solvent Cleanup Program
- Vapor intrusion
- Vendor-focused technologies and products (anticipated to be a session with "speed talks")
- Regulatory policy and initiatives
- Cleanup case studies of sites and surface water contaminated with petroleum, PCBs, DNAPLs and LNAPLs, chlorinated solvents, arsenic and heavy metals, pesticides, nitrates/nitrites and other contaminants.

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Calendar

August

AUG. 2-4 – Conference: FLERA Conference 2017, Environmental Leadership in Changing Times, Sarasota, FL. Presented by the Florida Local Environmental Resource Agencies Inc. Call (850) 701-4800 or visit www.flera.org.

AUG. 2-5 – Course: Backflow Prevention Assembly Tester Training and Certification, Tallahassee, FL. Presented by the University of Florida TREEO Center. Call (352) 392-9570 or visit www.treeo.ufl.edu.

AUG. 2-5 – Conference: 2017 FES/FICE Annual Summer Conference, Palm Beach, FL. Presented by the Florida Engineering Society and the Florida Institute of Consulting Engineers. Call (850) 224-7121 or visit www.fleng.org.

AUG. 3-4 – Exam: Backflow Prevention Recertification Exam, West Palm Beach, FL. Presented by the University of Florida TREEO Center. Call (352) 392-9570 or visit www.treeo.ufl.edu.

AUG. 5-6 – Exam: Backflow Prevention Recertification Exam, Bradenton, FL. Presented by the University of Florida TREEO Center. Call (352) 392-9570 or visit www.treeo.ufl.edu.

AUG. 7-11 – Course: Wastewater Class A Certification Review, Gainesville, FL. Presented by the University of Florida TREEO Center. Call (352) 392-9570 or visit www.treeo.ufl.edu.

AUG. 7-11 – Conference: National Environmental Monitoring Conference, Washington, DC. Cosponsored by The NELAC Institute under a cooperative agreement with the U.S. Environmental Protection Agency. Visit www.nemc.us.

AUG. 10-11 – Exam: Backflow Prevention Recertification Exam, Gainesville, FL. Presented by the University of Florida TREEO Center. Call (352) 392-9570 or visit www.treeo.ufl.edu.

AUG. 10-11 – Conference: American Water Resources Association Florida Chapter Annual Conference, Key Largo, FL. Email awra@awraflorida.org or visit www.awraflorida.org.

AUG. 11-12 – Exam: Backflow Prevention Recertification Exam, Miami, FL. Presented by the University of Florida TREEO Center. Call (352) 392-9570.

AUG. 13-14 – Conference: 2017 North American Hazardous Materials Management Association National Conference, Clearwater, FL. Call (303) 451-5945 or visit nahmma.org.

GRANTS From Page 10

sports aviation village where businesses associated with the aircraft industry can set up shop. The city is providing matching funds of 20 percent towards the cleanup, Williams-Collins said.

The city is required to clean up the sites by September, 2020, but hopes to be finished long before then.

Other grant recipients include the Apalachee Regional Planning Council in Florida's Eastern Panhandle. The council was awarded \$300,000 to conduct 10 Phase I and eight Phase II environmental site assessments, and prepare four cleanup plans and a community involvement plan.

The money will be evenly divided between cleaning up hazardous substances and remediating petroleum contamination.

Gadsden County will receive \$300,000 to conduct 10 Phase I and five Phase II ESAs. Grant funds will also be used for cleanup planning.

In Pensacola, a \$200,000 grant will be used to clean up the Community Maritime Park property on the 300 Block West Main Street and support community outreach activities there.

AUG. 14-18 – Course: Water Class A Certification Review, Gainesville, FL. Presented by the University of Florida TREEO Center. Call (352) 392-9570 or visit www.treeo.ufl.edu.

AUG. 15 – Course: Refresher Training Course for Experienced Solid Waste Operator - 8 Hour, Davie, FL. Presented by the University of Florida TREEO Center. Call (352) 392-9570 or visit www.treeo.ufl.edu.

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AUG. 15-17 – Course: Initial Training for Landfill Operators and C&D Sites - 24 Hour, Davie, FL. Presented by the University of Florida TREEO Center. Call (352) 392-9570 or visit www.treeo.ufl.edu.

AUG. 15-17 – Course: Initial Training for Operators of Landfills and Waste Processing Facilities, Kissimmee, FL. Presented by the University of Florida TREEO Center. Call (352) 392-9570.

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AUG. 17 – Course: Refresher Training Course for

Finally, in Tallahassee, \$300,000 will be used to perform 10 Phase I and five Phase II ESAs, conduct cleanup planning and support outreach activities.

In a statement, EPA Administrator Scott Pruitt said the agency is committed to working with communities to redevelop brownfield sites that have plagued neighborhoods.

"EPA's assessment and cleanup grants target communities that are economically disadvantaged and include places where environmental cleanup and new jobs are most needed," he said.

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AUG. 18 – Course: Refresher Training Course for Experienced Solid Waste Operator, Spanish Only - 4 Hour, Davie, FL. Presented by the University of Florida TREEO Center. Call (352) 392-9570 or visit www.treeo.ufl.edu.

AUG. 18 – Course: Refresher Training Course for Experienced Solid Waste Spotter, Spanish Only - 4 Hour, Davie, FL. Presented by the University of Florida TREEO Center. Call (352) 392-9570 or visit www.treeo.ufl.edu.

AUG. 18 – Course: Initial Training Course for Spotters at Landfills, C&D Sites and Transfer Stations, Spanish Only - 8 Hour, Davie, FL. Presented by the University of Florida TREEO Center. Call (352) 392-9570 or visit www.treeo.ufl.edu.

AUG. 18-19 – Course: Initial Training Course for Transfer Station Operators and Materials Recovery Facilities, Spanish Only - 16 Hour, Davie, FL. Presented by the University of Florida TREEO Center. Call (352) 392-9570 or visit www.treeo.ufl.edu.

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AUG. 18-19 – Course: Backflow Prevention Assembly Repair and Maintenance Training and Certification, Venice, FL. Presented by the University of Florida TREEO Center. Call (352) 392-9570 or visit www.treeo.ufl.edu.

AUG. 19 – Course: Initial Training Course for Spotters at Landfills, C&D Sites and Transfer Stations, Spanish Only - 8 Hour, Davie, FL. Presented by the

University of Florida TREEO Center. Call (352) 392-9570 or visit www.treeo.ufl.edu.

AUG. 20 – Course: Refresher Training Course for Experienced Solid Waste Spotter, Spanish Only - 4 Hour, Davie, FL. Presented by the University of Florida TREEO Center. Call (352) 392-9570 or visit www.treeo.ufl.edu.

AUG. 21-24 – Symposium: 29th Annual Technical Symposium of the Florida Lake Management Society, Duck Key, FL. Call (352) 434-5025, e-mail flms.home@aol.com or visit www.flms.net.

AUG. 23-24 – Workshop: 2017 State Revolving Fund/Water Project Funding Workshop, Orlando, FL. Presented by the Florida Engineering Society, the Florida Department of Environmental Protection and the Florida Institute of Consulting Engineers. Call (850) 224-7121, e-mail seminars@fleng.org or visit www.fleng.org.

AUG. 25-26 – Course: Cross Connection Control: Survey and Inspection, Venice, FL. Presented by the University of Florida TREEO Center. Call (352) 392-9570 or visit www.treeo.ufl.edu.

AUG. 29-31 – Course: Water Distribution Systems Operator Level 1 Training Course, Kissimmee, FL. Presented by the University of Florida TREEO Center. Call (352) 392-9570 or visit www.treeo.ufl.edu.

AUG. 29-31 – Course: Microbiology of Activated Sludge, Gainesville, FL. Presented by the University of Florida TREEO Center. Call (352) 392-9570.

September

SEPT. 8 – Seminar: Demonstrating and Achieving Progress in Reducing Pollutant Loads, Orlando, FL. Presented by the Florida Stormwater Association. Call 1-888-221-3124 or visit www.florida-stormwater.org.



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Fort Myers to clean up 1960s-era arsenic-contaminated sludge ponds

By ROY LAUGHLIN

In late June, the Fort Myers City Council voted to move ahead with a phased remediation project in the city's Dunbar neighborhood to clean up arsenic contamination in former sludge disposal ponds.

From roughly 1962 until about 1967, a nearby water treatment plant disposed of

lime softening sludge in several ponds on the property. The long-abandoned disposal ponds are on several lots bordered by South Street, Henderson Avenue, Jeffcott Street and Midway Avenue.

City officials discovered signs of arsenic during a site visit when a contamination search was not on the visit agenda.

Several areas of unusual soil discoloration indicated possible arsenic presence,

later verified by chemical analysis.

According to Fort Myers Spokesperson Kiersten O'Donnell, arsenic analyses in 2007 indicated the presence of arsenic.

"(Arsenic concentrations in) 43 of 44 test pits were found to be between residential and commercial SCTLs (soil clean-up target levels)," she wrote in response to queries.

She said that the arsenic's source is perplexing. The water treatment plant did not knowingly use or dispose of any arsenic-containing materials. The city purchased the property in 1962 specifically for lime treatment sludge disposal.

At that time, the approximately 17-acre parcel was outside city limits and had no close neighbors who may have used the ponds for disposal.

According to O'Donnell, the ponds may have been borrow pits or the city might have dug them.

By 1967, the city filled the ponds to capacity with sludge and then began piping it to another site. The city water treatment plant now uses deep injection wells for sludge disposal.

In 2003, the city council designated the site as part of the Dunbar Enterprise Area,

a brownfield area.

When they decided to sell the property, there was little interest. Habitat for Humanity wanted to build homes there, but soil tests showed that the sludge underlying the lots made it unsuitable for slab construction homes.

The city council's action to clean up the site is, in part, a response to the concerns of neighboring residents.


The former pond sites have never been fenced off to restrict access. At its June 19th meeting, the council voted to immediately fence the lots.

"The city is preparing to start a new series of testing, including characterization of the sludge and retesting of the soil and groundwater," said O'Donnell. "The soil on the adjacent properties has not been tested yet."

Specific future remediation efforts will depend on the findings of site characterization. The study will indicate the depth of the sludge pits, their extent and the concentration of arsenic.

"We will include citizen input in determining a future use for the land, so remediation strategies will also depend on their recommended land use," she said.

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CERTIFICATION

From Page 8

new standards would be an added burden.

For example, with respect to the continuous improvement quality plan, "you will have to document your quality assurance system," he said. "You must improve it every year and you have to document it every year."

"Instead of getting the job done, you're going to have to justify getting the job done. It's a burden being put onto the lab. Moving to a more complicated standard will not be beneficial."

Flowers also noted the confusing nature of determining and validating minimum detection levels under the TNI 2016 standards. He characterized them as change for change's sake—not improvements.

TNI response

Jerry Parr, president of The NELAC Institute, said that when NELAC instituted its first set of standards in 2003, periodic updates were explicitly anticipated and certifying authorities in member states were expected to adopt them expeditiously.

He pointed out that Florida is one only four states still using the 2003 standards because, he said, Gov. Rick Scott's election promise of "no new regulations" blocked the state DOH from implementing TNI 2009 standards at time of issue.

However, according to Parr, Florida "does not penalize" labs that voluntarily follow TNI 2009 standards.

According to Parr, many NELAC 2003 standards are obsolete. The original NELAC body that issued them merged with another standards organization in 2005 and emerged as TNI.

He said that, at some point, NELAC 2003 standards are "going to go away" because TNI will withdraw its support for them. DOH, therefore, has little alternative other than to update its standards.

Parr tried to allay concerns about the perceived complexity of the new standards, noting that the 2009 and 2016 standards have been simplified compared to the 2003 standards.

He pointed out that the 2009 standards, reorganized under certification categories, comprise a document that totals 180 pages. The 2003 standards fill 389 pages.

He characterized the 2016 standards as "easier to read ... a better document."

He said it is more flexible, and because it is arranged in modules by certification category, it's more effective for smaller laboratories.

Parr did not agree that the new standards will impose the extra cost many fear.

For the reasons mentioned above plus the added flexibility of the new rules, he said that the costs will not be much greater.

DOH communications

The wide breadth of impressions and uncertainty about the recently-developed

TNI 2016 standards is in no small way, attributable to DOH's "failure to communicate."

DOH prepared two copies of the proposed standards that can only be viewed at DOH offices in Tallahassee and Jacksonville.

The agency determined that posting the publications on the internet for purpose of public inspection and examination would constitute a violation of federal copyright laws.

The only alternative to a visit to DOH offices is to purchase TNI's 2009 and 2016 publications.

Lab managers might justify the cost of the manuals at about \$75 each, according to Parr, but other non-lab stakeholders might find buying copies an unjustified financial burden.

In any case, when a rule is up for comment, authorities are duty-bound to make them appropriately available for the public to read.

Managers support standards, but ...

Critics of the TNI 2016 standards do not object to compliance standards in general. All laboratory managers interviewed supported the need for these standards.

Dixon and Flowers, in particular, had high praise for the contributions that the 2003 rules and the 2009 updates made to the analytical lab enterprise in Florida.

Nor is the opposition to TNI 2016 standards an objection to DOH's role as the accrediting authority.

Flowers endorsed the effectiveness of private labs with DOH oversight. He said it was a good system that protected public health, and was transparent and accountable with each side watching over the other.

Flowers compared Florida's situation with that at the core the Flint, MI, drinking water lead contamination scandal.

It occurred, he said, because layered government testing labs, enforcement agencies and oversight agencies were too closely allied to analyze, recognize and take action to end the contamination before it became harmful to the public.

"That situation could never arise in Florida," he said with conviction.

New standards timetable

Parr said that the TNI 2016 standards are in the final stages of formulation and are expected to be ready for formal state adoption into rule by the end of the year.

DOH did not respond to our repeated calls and e-mails for comment on this story. In the absence of any response from them, we can only speculate that Florida could complete formal rulemaking in 2018.

While implementation of the new standards seems inevitable, other changes from the proposed text, such as lower fees, are still on the table and will be welcomed by environmental lab managers across the state.

DEP awards Duval County DOH funds for septic tank improvement efforts

By PRAKASH GANDHI

The Florida Department of Environmental Protection awarded the Florida Department of Health in Duval County \$549,000 in grant funding to improve the county's septic tanks.

The money will help officials continue the progress they have made with improving water quality in the bustling region.

The projects include identifying older and faulty septic systems to be fixed or replaced. The grant will also be used for efforts to locate possible pollutants for 25 impaired waterbodies in the Lower St. Johns River watershed.

The health department is focusing its efforts on septic system improvements while the city of Jacksonville is working

on converting septic tanks to the centralized sewage collection system.

The Lower St. Johns River Septic Tank Enforcement Project has been an on-going program for many years, said Scott Turner, Duval County's director of environmental health and emergency preparedness.

Turner said the main program objective is protecting the surface waters of the Lower St. Johns and its tributaries by enforcing laws and rules governing on-site sewage treatment and disposal systems.

There are an estimated 21,000 septic tanks in the city and between five and 10 percent of them are leaking.

In 2006, then-Mayor John Peyton signed legislation to replace some of the 21,000 septic tanks with connections to

city sewer services. The agreement also targeted outdated wastewater treatment plants and focused on making the best use of reclaimed water.

Turner said environmental health staff conducts door-to-door inspections to identify failing septic tanks that could discharge into the Lower St. Johns River and its tributaries.

He said complaints are investigated involving malfunctioning systems and pollution from direct or indirect sewage discharge.

The DOH in Duval County issues construction permits, and inspects repairs and modifications for systems to prevent discharge of untreated or improperly treated wastewater.

In addition, staff provides educational

materials and consultation on the proper use and maintenance of systems to homeowners and tenants.

The education provided as part of this project will increase public awareness of the many fecal coliform sources and their impacts on water quality, Turner added.

"The end result is that an increased number of homeowners will have their septic systems pumped out and inspected on a regular basis," he said.

There will also be a decrease in hazardous chemicals being discarded into septic systems and better maintenance of systems in general.

DEP Spokesperson Sarah Shellabarger

WATCH

From Page 4

It is also of interest because the dominant cyanobacteria species in a future bloom might be a different species whose toxins pose a different risk to humans.

The seeds of such a bloom of a different species are present among the remaining 27 cyanobacteria found in the survey.

Marco Island marina appeal. Officials with the city of Marco Island plans to file an appeal to void a recent Florida Department of Environmental Protection decision eliminating a requirement for water quality testing and monitoring at the city's Esplanade Marina.

The monitoring and testing requirements were included in the Smokehouse Bay marina's 2002 permit.

The marina recently requested and received a waiver from any further obligation to conduct and report water quality results at the marina.

At its May 1 meeting, the Marco Island City Council approved a petition to appeal DEP's action based on three issues.

City officials are concerned that DEP's relaxed requirements remove incentives for the marina to meet other conditions of its permit, particularly the obligation to prevent pollution caused by marina operations. That increases the risk of pollution in Smokehouse Bay.

In more specific terms, city officials are concerned because the marina had not conducted water quality testing as required over the past decade. Nevertheless, the marina cited nonexistent negative testing results to justify its petition to end the obligation to sample and monitor.

The city council cited a recent independent water quality review that found high

levels of fecal coliform bacteria and nitrogen in Smokehouse Bay. Those levels could be directly attributable to Esplanade Marina operations.

The city's appeal is based primarily on the use of incorrect and misleading facts noted in Esplanade Marina's application.

The city's petition will be reviewed by the Florida Division of Administrative Hearings.

Wakulla County wastewater upgrades. The Wakulla County Board of County Commissioners approved a consent order with the Florida Department of Environmental Protection in late June requiring the county to adhere to a schedule to reduce nitrate levels in its wastewater treatment plant effluent applied to the Lawhorn Road Sprayfield.

Under the terms of the order, Wakulla County has two years to reduce nitrates in the wastewater effluent applied to the sprayfield.

The consent order also includes a \$5,000 fine. County officials are negotiating with DEP to apply the \$5,000 to county projects, in lieu of paying it as a fine.

DEP wants nitrates reduced in order to better protect water quality in the Wakulla Springs watershed.

According to local reports, water samples collected from January, 2014, through mid-2016 implicate the wastewater treatment plant effluent as a contributor to high nitrate levels that have impacted Wakulla Springs' water quality.

At least two county commissioners expressed frustration with DEP's consent order because the county is building a new wastewater treatment plant that will meet effluent guidelines and is expected to be in operation in 2018.

"DEP continues to review sample results from both private drinking water wells and onsite monitoring wells," Miller said. "Results continue to indicate that the affected water is being successfully contained, and that there is no evidence of off-site movement or impacts related to process water from the sinkhole at the Mosaic New Wales facility."

Mosaic representatives met with department officials in late June to discuss their June submittal including the proposed revisions to the work schedule and possible resequencing of some activities in the corrective action and grouting plan governing the sinkhole closure.

DEP issued comments to Mosaic on July 10.

Mosaic was required to address the agency's comments and submit their proposed revised implementation schedule for their action plan to the department requesting approval within 15 days, Miller said.

"DEP will continue to hold Mosaic accountable for meeting all requirements of the consent order, including repairing the sinkhole, recovering all discharged process water and providing continued assurances that no off-site impacts have occurred," she said.

"This comment letter does not guarantee the department will approve a revised schedule," she noted. "And the department retains all enforcement rights (including fines and penalties) under the order."

SINKHOLE

From Page 1

tal Protection that the confining layer of the sinkhole had been substantially sealed. They also told DEP that additional time is still needed to complete the repairs remaining to fully close the sinkhole.

"DEP has required Mosaic to provide additional information on the anticipated timetable to complete additional drilling and grouting activities, as well as information on measures that can be taken to ensure this delay is minimized," said DEP Spokesperson Dee Ann Miller.

Mosaic submitted the requested information to the department on June 20 in a letter detailing their progress to date and proposing a revised schedule.

The new schedule shifts some activities and proposes certain elements in the original schedule be re-sequenced so onsite personnel can continue working safely during the summer storm season.

Mosaic installed a storm warning system to protect its employees and contractors at the site.

The currently proposed completion date is spring, 2018.

Although completion of the project has been delayed, DEP is maintaining strict oversight of the process as protection of regional drinking water supplies is paramount for the agency.

Mosaic has collected approximately 1,800 water samples related to the incident.

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Duke Energy sues insurance companies for coal ash contamination costs

By ROY LAUGHLIN

Earlier this year, Duke Energy filed suit against 30 insurance companies to force them to pay claims arising from Duke's corrective actions for coal ash contamination at 14 coal-burning plants in North Carolina and one plant in South Carolina.

Duke's filing described it as "a civil action seeking insurance coverage under certain third-party liability insurance policies."

The payments would cover damages to

adjacent property owners harmed by groundwater contamination arising from coal combustion residuals that had been stored for decades in unlined basins and containment structures.

From 1971 until 1986, Duke and its subsidiaries purchased excess-level third party liability coverage to cover property damage caused by emissions from their power plants.

Perhaps years ago, the power company and its insurance carriers may not have envisioned covered emissions that occurred in water.

Duke's need for coverage arose following the 2014 impoundment failure at their plant in Dan River, VA. Subsequently, the power company accepted obligations to remove or otherwise handle 108 million tons of coal ash.

Initially, Duke estimated the cost of cleanup to be in excess of \$2 billion. Duke, in its filing, wrote that its liability has evolved over time and continues to evolve due to the North Carolina Coal Ash Management Act and U.S. Environmental Protection Agency rules.

The current estimated remediation costs are \$5.2 billion in North and South Carolina alone, at least 50 percent more than 2014 estimates.

The insurance companies refused to pay the claim.

In court, they said that because Duke's CCR storage facilities were built without any containment structure and were often built in direct contact with groundwater, Duke created the problem.

The insurance companies alleged that the costs of cleanup are a cost of doing business for the company, not an insurable risk.

Consequently, the insurance companies denied any liability.

Duke Power claims its containment

practices are consistent with industry-wide standards and were legal at the time they were used. Consequently, insurance companies have improperly refused to pay Duke's damage claims.

Duke also alleged that the insurance policies it purchased include specific provisions making the insurance companies liable for the claims.

This case will not conclude quickly.

Duke filed the case in late March. The discovery phase alone may take 14 months or more to complete.

The case management report noted significant attention given to a mediated settlement prior to trial. But the parties proposed putting off mediation until May, 2019.

Duke Power acknowledges that insurance company payments may provide hundreds of millions of dollars, but not the billions of dollars needed to cover the estimated CCR facility remediation costs.

In early July, Duke requested a 16.7 percent rate increase for its North Carolina customers, effective Jan. 1, 2018.

Although most of that rate increase is slated to upgrade North Carolina's power grid following Hurricane Matthew's damage last October, \$200 million per year is earmarked for coal ash impoundment and CCR remediation.



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Court delivers victory to governments, advocates with property rights decision

By BLANCHE HARDY, PG

On June 23, the U.S. Supreme Court delivered a decisive victory to state and local governments and environmental groups by finding for the state of Wisconsin in the Murr v. State of Wisconsin and St. Croix County property rights case.

The ruling represents a major judicial decision in the ongoing battle between property rights advocates who attempt to limit regulations by demanding compensation and municipal governments that try to control issues such as unfettered development, environmental degradation and flooding through land use regulations.

The case involved two adjacent plots of land, Lot E and Lot F, bought separately by William and Margaret Murr in Troy, WI, in the 1960s. The lots are on an embankment overlooking the St. Croix River.

The Murr maintained the lots under separate ownership until 1994 when they transferred Lot F to one set of their children and then transferred Lot E to a second set of their children in 1995.

In 1972, well before the Murr lot transfers, the state of Wisconsin enacted regulations to preserve the scenic and recreational qualities of the St. Croix River in response to the river's designation for federal protection under the Wild and Scenic Rivers Act.

Among the act's regulations is a prohibition on building on lots smaller than one acre.

Both Lot E and Lot F are over an acre, but a steep bluff cuts through the center of each lot creating topography that limits each lot to less than one buildable acre.

When combined, the Murr's two lots comprise just under an acre of land suitable for development.

A cabin occupies one lot and the lots were merged into one under the regulations.

Having received the property in the mid-1990s, the second set of Murr children applied for and were denied permission to build on the second lot, Lot E.

Because the lots are considered combined under the regulations, the Murr children could build a bigger house than the existing cabin, but they could not have an independent house on each lot.

Because Lot E couldn't be sold or developed separately, the Murr challenged the regulations in state court as an unconstitutional taking.

To support their case, they had the lots appraised as currently regulated. Cabin Lot F was valued at \$373,000 and the undeveloped Lot E was valued at \$40,000.

Together the lots were valued at \$698,300 as regulated, but if both Lot E and Lot F were independently buildable, the two lots would be worth \$771,000.

Although the lots appraised at the greatest value when independently buildable, the Murr lost in the state court.

Upon appeal, the court concluded that the merger regulations did not effect a taking. The court explained that petitioners could not reasonably have expected to use the lots separately because they were "charged with knowledge of the existing zoning laws" when they acquired the property.

The Murr then appealed to the U.S. Supreme Court. The Supreme Court also found the lots contiguous.

Writing for the court's majority, Justice Anthony Kennedy said that regulations that partly limit how a property owner uses his or her land do not necessarily require compensation from the state.

"The value added by the lots' combination shows their complementarity and supports their treatment as one parcel," he said, explaining that the combined lots are valued at \$698,300, which is far greater than the summed value of the separate regulated lots.

"Courts must instead define the parcel in a manner that reflects reasonable expectations about the property," he said. "Courts must strive for consistency with the central purpose of the Takings Clause to 'bar government from forcing some people alone to bear public burdens which, in all fairness and justice, should be borne by the public as a whole.'"

"Treating the lot in question as a single parcel is legitimate for purposes of this takings inquiry, and this supports the conclusion that no regulatory taking occurred here," he said.

The Supreme Court reinforced their decision on the closely followed Murr property rights case by declining to review two other cases that presented similar legal issues.

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ORCA network funding drops by \$650,000, limiting range of monitoring

By ROY LAUGHLIN

In 2016, after the cyanobacteria blooms in the St. Lucie Estuary and southern Indian River Lagoon, the Ocean Research and Conservation Association in Fort Pierce received a total of \$750,000 to maintain and operate 28 autonomous robotic monitoring devices called Kilroys.

The devices are stationed primarily in creeks and canals within the five counties along the Indian River Lagoon.

One third of that total cost, \$250,000, was provided by the Florida Legislature. Sen. Joe Negron helped arrange to additional \$500,000 through the Florida Department of Environmental Protection.

FEDFILE From Page 2

of a chemical appropriately require risk analysis. According to the agency, this part of the rule ensures that EPA will focus on those uses posing the greatest risk.

The second rule, the TSCA Inventory Notification (Active-Inactive) Rule, required industry reporting of chemicals used in manufacturing processes in the U.S. over the past decade.

This will allow the EPA to identify chemicals in the TSCA inventory that are still used in commerce and to guide the EPA's prioritization activities.

The rule also reduces "the regulatory burden" by streamlining reporting requirements for chemical manufacturers and processors, according to the agency.

In December, 2016, EPA named the first 10 chemicals to undergo risk analysis under the Lautenberg Act. In the months since that announcement, the agency has prepared the scope of risk evaluation that includes the hazards, exposures, conditions of use and potential expose, and susceptible sub-populations that the agency will consider in its risk analysis.

Those scopes are now online and open to public comment. During the public comment period, the EPA will prepare problem formulation documents, expected to be released later this year or in early 2018.

Engineering industry: Superfund needs more money. A recently completed study by the American Council of Engineering Companies noted that between Fiscal Year 2000 and FY 2016, EPA Superfund spending declined from 1.9 billion to \$1.09 billion.

Though new contaminated sites are being added to the program's priority list, the Trump administration proposed cutting \$330 million more from the program, reducing proposed spending to \$762 million.

The subtotal for Superfund cleanup work specifically would shrink from \$709.72 million to \$515.784 million.

EPA's FY 2018 proposed budget stated that approximately 166 million people live within three miles of a Superfund site, a Resource Conservation and Recovery Act corrective action site, or a brownfields site that received EPA funding.

Apparently, substantially more of the costs and effort of contaminated site cleanup will be the responsibility of states and tribes under EPA Administrator Scott Pruitt's cooperative federalism philosophy.

David Raymond, president and CEO of ACEC, encouraged Congress, government agencies and private firms to use the report's findings going forward to adequately fund and conduct Superfund site cleanups.

The report, Superfund 2017: Cleanup Accomplishments and the Challenges Ahead, was independently authored by Catherine Probst, who wrote a 2001 report to Congress characterizing budget needs and issues affecting Superfund site cleanup.

ACEC commissioned and underwrote Probst's update of her 2001 report.

The report is available at <http://www.acec.org/publications/superfund-2017-white-paper/>.

For Fiscal Year 2018, ORCA asked for only \$650,000 in total. However, the half million in DEP funding was not renewed, so ORCA has only \$250,000 to fund the monitoring that began July 1.

Each Kilroy costs \$30,000 annually to maintain, so with just \$250,000 to spend, the organization will be able to support only eight or nine devices.

ORCA Managing Director Warren Falls said that by July 14, they began "shedding and pulling units." As the monitoring devices come due for servicing, they are pulled out of service.

In the coming year, ORCA hopes to have 10 Kilroys operating with the \$250,000 funding.

The organization has approached local governments along the lagoon for financial support for additional stations in their monitoring network.

As of mid-July, Martin County officials had inserted funding authorization for two units in Martin County: one in Willoughby Creek and one in Manatee Pocket.

St. Lucie County officials made similar funding provisions for one device in their county.

The funding awaits approval of budgets by the boards of county commissioners in late July.

In addition, Falls said he was negotiating with Brevard County officials for Kilroy support there. Last year, the Kilroys produced real-time data showing the development of the winter fish kills in the Banana River.

Falls said he hoped that Brevard offi-

cials would step up with financial support.

ORCA also posted an appeal on the organization's website for citizen funding. When asked if citizen funding would be sufficient to fund several stations, he said that it certainly would, a comment backed by ORCA's annual reports.

ORCA
Continued on Page 16

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Suwannee River district adopts emergency MFL rule for four area springs

By **BLANCHE HARDY, PG**

The Suwannee River Water Management District Governing Board adopted an emergency rule to establish minimum flows and levels for four Outstanding Florida Springs: Falmouth Spring, Lafayette Blue Springs, Peacock Springs and Troy Spring, as required by the Florida Springs and Aquifer Protection Act, Part VIII, Ch. 373, Florida Statutes.

Staff recommended the approval of Emergency Rule 40BER 17-01, FAC during a public hearing on May 31.

The governing board voted to adopt the emergency rule on June 13. The rule goes into effect on July 1 and will remain in

effect until a final rule can be adopted.

MFLs are established to aid the water management districts in assuring the sustainability of the state's potable water supply, and viability and protection of water resources and the natural environment.

The emergency rule will only temporarily establish minimum flows for the four springs. The temporary MFLs will, however, be adhered to when reviewing permits requesting water use.

"As with all minimum flows established by the district, if adopted, the minimum flows in the proposed emergency rule would be used as a basis for imposing limitations on withdrawals of groundwater and surface water in the consumptive use per-

mit regulatory process and for reviewing proposed surface water management systems in the environmental resource permit regulatory process," district staff said.

Having published notice of intent to proceed with the emergency rule by July 1, the district held its first public workshop on the proposed rule in May.

Senate Bill 552 requires that MFLs be set for all Outstanding Florida Springs before July 1, 2017. That deadline is legislatively mandated and must be complied with.

"The Legislature understood that there might be problems meeting that deadline, so the Florida Springs & Aquifer Protection Act enables emergency rules to be adopted to meet that deadline if an MFL cannot be completed by then," noted Carlos Herd, director of the district's water supply division.

The minimum flow for Lafayette Blue

Spring, Peacock Springs and Troy Spring was established as a 9.9 percent reduction in the pump-off flow of each spring.

The minimum flow for Falmouth Spring was established as a 9.9 percent reduction in the sum of the total of the pump-off flow of Lime Spring, Lime Run Spring, and Suwanacoochee Spring.

Early peer review comments of the district's draft technical memorandum suggest the allowable reductions in spring flow should not be considered independent of one another.

And although the proposed 15 percent allowable reduction in flow at Falmouth Spring may be protective of the resources in the immediate vicinity of the Ellaville gage, this flow may not adequately protect resources downstream where the allowable flow reduction is proposed to be 9.9 percent.

in the Indian River Lagoon and the St. Lucie Estuary.

The two are complementary and do not overlap significantly.

SEPTIC

From Page 13 said funding for these projects comes from U.S. Environmental Protection Agency Section 319 grants administered by the state.

The funds are awarded annually to implement projects that reduce non-point source pollution and restore impaired springs, rivers, lakes and estuaries.

"By partnering with the Department of Health and awarding grants for statewide septic tank survey and remediation projects, we can further our efforts and better inform restoration strategies, benefiting the environment and local communities," Shellabarger said.

During this year's drought, the county issued a burn ban to stop residents from burning materials in their backyards, reducing the likelihood of wildfires.

"We are making progress on improving the air quality in Central Florida," Parker said. "Predominantly, we have green days."

Air Now is the repository of air quality data and forecasts for the U.S. and contains air quality measurements from thousands of monitoring sites across North America.

The recent Air Now report from the EPA included contributions from state and local agencies.

ORCA

From Page 15

Donations comprise from one third to 40 percent of the organization's total funding. There is no current funding for Kilroy stations in Indian River or Volusia counties. There, voluntary citizen funding would make all the difference.

It seems likely that in the coming year, ORCA should have 13 units at a minimum and maybe 15 or more if other funding sources step forward in a timely manner.

Kilroys fill an important monitoring niche. Most are located in creeks and canals that drain into the Indian River.

Currently, DEP and the Florida Legislature fund two monitoring networks in the southern Indian River Lagoon. One is ORCA's Kilroy network. The other is Harbor Branch Oceanographic Institution's Land Ocean Biogeochemical Observatory network, with nine remotely operated units

AIR

From Page 9

help to keep our air quality good."

EPA has been working with automobile manufacturers to decrease vehicle emissions.

Other factors helping to keep air quality good are more people carpooling, an increased use of public transportation and coal-fired power plants switching to natural gas, Parker said.

The county monitors for the six criteria pollutants including ozone, particulate matter, carbon monoxide and others.

"Overall, we are seeing a decrease for criteria air pollutants," Parker said.

Bad air days typically occur on weekdays due to the exhaust from commuting traffic. Another factor is smoke from wildfires kindled by drought.



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