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# **August 2012**

Volume 34, Number 8

## Mercury TMDL

The Florida Department of Environmental Protection plans to have a mercury TMDL proposed by the end of September. A draft of the rule was released in late spring and DEP staff has been conducting public hearings and information meetings on the proposed standard.

## Aquifer recharge

The Suwannee and St. Johns river water management districts, in partnership with the Florida Department of Environmental Protection and others, have combined forces to pinpoint ways to better nurture the health of the Floridan Aquifer. They want to capture significant quantities of water and use it to recharge the Upper Floridan.

## PBC well monitoring

The Palm Beach County Commission reinstated a program to test drinking water wellfields. The decision to reverse field was made after only Delray Beach, Lantana and Lake Worth said they would go along with a county proposal to shift monitoring costs to local utilities.

## Environmental labs

Our 2012 directory of environmental labs doing business in the state starts on Page 7.

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## Got a story lead?

Got an idea for a story? Like to submit a column for consideration? Fire away. 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 the state. Send to P.O. Box 2175, Goldenrod, FL 32733. Call us at (407) 671-7777; fax us at (407) 671-7757, or email us at info@enviro-net.com

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# **High Court refuses** to hear tri-state water war case

### By DAN MILLOTT

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ith the U.S. Supreme Court refusing to reconsider a ruling by an appeals court, the next phase in the decades-long dispute between Georgia, Alabama and Florida shifts to the U.S. Army Corps of Engineers to set new guidelines for water control in the Apalachicola-Chattahoochee-Flint River system.

By declining to hear the case, the high court upheld the decision by 11th Circuit Court of Appeals overturning a 2009 ruling by U.S. District Court Judge Paul A. Magnuson.

Magnuson had ruled that Congress must approve the use of Lake Lanier as a source of water for Georgia cities.

"We anticipate reissuing a notice of intent and resuming the update of water control manuals for the ACF system within the next 90 days," said E. Patrick Robbins, public affairs chief at the Mobile District of the U.S. Army Corps of Engineers, the day after the Supreme can now act.



Sulfur Springs flume delivers water to the lower Hillsborough River just below the base of the Rowlette Park Dam, delivering 10-18 cubic feet per second of flow. See story on Page 11.

Court announced its decision.

Dan Tonsmiere, executive director of Apalachicola Riverkeeper, said the good news is that the Corps of Engineers

"The corps has to determine if there is enough water in the system to meet

TRI-STATE = **Continued on Page 12** 

# Economic conditions, pricing challenges improving for some environmental labs

### **By MELORA GRATTAN**

hile most environmental laboratory professionals operating in Florida wouldn't characterize their businesses as going like gangbusters, there are some that are experiencing growth and seeing improvements in long-term issues such as competitive pricing, poor economic conditions and budgetary purse strings that have been tied up tight.

"Our company has grown over 12 percent overall in the past year, while the lab here in Miami has grown 41 percent," said Kimberly Kostzer, lab manager for Advanced Environmental Laboratories Inc.'s Miramar location.

Kostzer attributes some of the growth to being a good company with a stable product, as well as many of their locations earning more certifications allowing for more market diversification.

For instance, new certifications at their Jacksonville lab means the company can explore federal work with the

the-art equipment that produces quicker results and a more experienced staff that is used to meeting the area's increased level of demand and fast pace. Increased automation is a necessity.

Kostzer expects the issue of low-ball pricing in South Florida to improve due to recent lab mergers, acquisitions and closings. At least three major laboratories in the Miami area recently shut down or sold out.

"We will start to see prices rise because the competitor saying they will provide the service for half-off isn't there anymore," she said. "The labs that survived didn't succumb to the extreme lowering of prices."

She also sees the economy and budgets opening up in areas including the **Continued on Page 7** 

### petroleum pre-approval program, state construction and transportation projects, and possibly Everglades restoration work in 2013.

The petroleum program should offer some growth opportunities in the upcoming year, said J. Bradley Moravec, manager of the Gulf Region for ESC Lab Sciences.

The 42-year-old company owned by its 250 employees outside of Nashville, TN, concentrates on real estate and due diligence work in Florida, which Moravec predicts will remain solid and possibly experience some growth.

While Moravec characterized the

LABS =

# **PEER report blasts DEP for lack** of environmental enforcement

### By PRAKASH GANDHI

them after the offenses have occurred.

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U.S. Department of Defense and fuel testing methods, while the Gainesville branch is conducting more specialized microbiological testing.

The South Florida branch in Miramar, which opened just two years ago, has more than doubled its certifications in areas such as organics, inorganics and chemistry during the past year to become a full-service lab that conducts everything in-house with twice the amount of staff for its expanded workload.

"We are definitely seeing good things in this economy, but it's due to a lot of hard work," Kostzer said.

Kostzer said the market in South Florida has always been challenging with clientele who are especially demanding in terms of quick turnaround times and low prices.

That has meant obtaining state-of-

lorida's environmental leaders are getting weak on polluters, failing to crack the whip on those who break the state's laws and regulations, claims an advocacy group in a new study.

The Florida chapter of Public Employees for Environmental Responsibility, said there has been a big drop in cases and fines because top officials at the Florida Department of Environmental Protection are instructing staff to avoid enforcement.

PEER says there have been dramatic declines in the number of cases brought and the amount of fines levied across virtually all regional DEP districts and all forms of pollution.

DEP admits there has been a decline but says it is trying to work with businesses, landowners and governments to prevent violations rather than punish

we would rather encourage and educate the public about compliance on the front end than impose fines after the fact when environmental harm has already occurred," said DEP spokeswoman Jennifer Diaz.

But Florida PEER Director Jerry Phillips, a former DEP enforcement attorney who conducted the study, said the latest figures show significantly poor performance in almost every major program in every DEP district.

"Enforcement dropped significantly in 2011," said Phillips. "It is troubling because it was the first year of Gov. Scott's tenure. You would have expected the drop not to be significant because the policies of the prior administration would still have been enforced."

The PEER report compared enforce-

PEER

**Continued on Page 16** 

# Feds propose to halt funding to Florida for beach water quality monitoring

### Staff report

In its 2013 budget, the U.S. Environmental Protection Agency is proposing to end funding for Florida's Beach Grant Program.

Last September, the Florida Department of Health reduced its beach water quality monitoring spending by \$525,000. The federal portion of \$516,000 for FY 2012 remained intact and was augmented in some areas by local spending.

In February, the EPA first proposed to end the funding, which will reduce monitoring for bacteria responsible for water-

NC X

SC

borne diseases at bathing beaches.

Should EPA cut off financial support, only local sources will fund future analyses, which amounted to about \$400,000 in the current fiscal year.

Since Florida reduced state funding, reductions in sampling frequency have been the most common result at most of the state's beaches. Biweekly rather than weekly sampling is now the rule at beaches in 24 Florida counties.

Several counties, including Citrus, Dixie, Levy and Taylor, ended sampling completely. Only six Florida coastal counties continue to sample bathing beaches weekly for microbial contamination.

FDOH has not indicated whether it would provide any support to continue pathogen monitoring at bathing beaches if EPA cuts the funding.

Nor is it yet clear whether the EPA, if it ends the grant part of its beaches program, will continue to update its reporting website, which provides beachgoers online access to water quality monitoring data for beaches.

**CBD sues to protect atrisk species.** The Center for Biological Diversity filed a notice of intent to sue the U.S. Fish and Wildlife Service.

The environmental advocacy group intends to force FWS to protect 10 Florida wildlife species under the Endangered Species Act. All 10 are found in freshwater or wetland habitats.

The list of species, only one of which is a plant, the small flower meadow beauty, also includes the black rail, Georgia blind salamander, Palatka skipper butterfly, purple skimmer dragonfly, Ichetucknee siltsnail, Florida cave amphipod and Panama City, Orlando cave and Big Blue Springs cave crayfish.

Federal

File

In 2011, following a petition from CBD, FWS determined that all 10 species "may warrant" listing as threatened or endangered. The CBD notes that in spite of this response to its 2011 petition, FWS has not formally released findings that would commit it to determine whether any or all of the species would receive protection under the ESA.

The law requires such findings within 12 months of the agency's prior characterization of the species' status.

The species listed occur in widely differing aquatic habitats, from wetlands in the Panhandle to caves forming the Floridan Aquifer.

CBD noted that the 10 species face similar threats: habitat destruction, water pollution and increasing water withdrawals. The water withdrawals are reducing wetlands and aquatic habitats statewide and what wetlands remain are increasingly polluted by nutrients, particularly aerosol deposition of nitrates.

In its species descriptions, CBD paints a dire situation for some. The Palatka skipper, a butterfly found in the Florida Keys, has had only 10 sightings of adults since 2008. The purple skimmer is found regularly only in one lake.

The Ichetucknee siltsnail is known to occur in a habitat that consists of 10 square yards of submerged mosses and cypress roots at Coffee Spring, on the west bank of the Ichetucknee River. The cave species are all threatened by habitat destruction occurring because of decreasing water flows and increasing nitrate concentrations.

The Fish and Wildlife Service has 60 days, until mid-August, to respond to CBD's notice of intent to file suit.

EPA to focus on largest GHG emit-

of air emission control requirements, monitoring, record keeping and reporting.

The permitting process also allows the opportunity for public involvement and to improve compliance, according to the agency.

The EPA noted that a few hundred large stationary emitters are responsible for 70 percent of the nation's greenhouse gas emissions.

The agency also noted that at least half the U.S. electricity generating plants had already made, or were making, plant modifications to reduce CO2e emissions that put them in compliance with the new rule.

The new rule received some criticism because it focused on the largest emitters, while at least for the next few years, shielding smaller emitters from permitting requirements.

The EPA is also attempting to formulate new permitting requirements that establish plant-wide emission limits, along with other permitting provisions and procedures that reduce permitting burdens for both local authorities and large industrial emitters.

**EPA to extend 2010 cement kiln standards.** The EPA is proposing to extend the compliance date for its 2010 air standard rules for Portland cement manufacturing kilns from September 2013 to September 2015. The change is in response to a federal court ruling and data from the industry.

In its announcement, the agency noted that the U.S. Court of Appeals for the DC Circuit found that the EPA's rules were legally sound, but remanded the EPA to account for rules finalized after the cement standards were issued. Those rules involved specific emission limits for other air contaminants, monitoring requirements and compliance time lines.

Since the 2010 rule was issued, and in light of more recent technical information, the EPA is proposing to adjust the way cement kilns continuously monitor for particle pollution. This includes proposing new particle pollution emission limits and averaging times.

Cement kilns that burn non-hazardous waste are not the subject of the proposed rule. Those are covered by a different set of standards.

Rules for the types of cement kilns covered are expected to dramatically reduce emissions of mercury, particle pollution and other air toxics.

The EPA accepted public comments throughout July and expects to finalize its rule by Dec. 20, 2012.

**EPA urban waters grants.** Forty six organizations in 32 states will receive a share of \$2.7 million in funding from the EPA for its Urban Waters Program. According to the agency, the program funding supports communities' efforts to access, improve and benefit from their urban water and the surrounding land. The grants range from \$30,000 - \$60,000. EPA notes that a number of underserved communities received project funding. The EPA selected the 46 recipients from a pool of more than 600 application it received. No Florida organization received funding during this round. In Georgia, the Upper Chattahoochee Riverkeeper received \$50,000 to expand its neighborhood water watch program and collaborative partnerships within Atlanta. Ending urban water pollution at its source is a primary program goal.



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and a legal challenge in the U.S. Court of Appeals for the DC Circuit, the EPA announced that it will not revise its greenhouse gas permitting thresholds announced in 2010. The EPA issued its final rule in early July.

The controversial GHG thresholds were aimed at large stationary emitters. Those are almost exclusively coal-powered electricity generating facilities.

The rule affects new facilities that will emit 100,000 tons per year of carbon dioxide equivalent, CO2e. The rule requires them to obtain Prevention of Significant Deterioration permits.

Existing facilities emitting at least 100,000 tons per year CO2e will be required to get the same PSD permits if facility modification increases CO2e emissions by more than 75,000 tons per year.

All existing GHG emitters producing more than 100,000 tons per year CO2e will be required to get operating permits under the new rule. Those permits include lists

FEDFILE \_\_\_\_\_ Continued on Page 18



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# Successful BMP implementation leads to improved water quality in Everglades

### Staff report

Phosphorus reductions have again improved water quality in the Everglades Agricultural Area.

Implementation of best management practices produced a 71 percent phosphorus reduction in the 470,000-acre EAA farming region south of Lake Okeechobee for the 2012 monitoring period.

Just west of the EAA, the C-139 Basin also met its goal of reducing phosphorus discharges to historic lows. Results show 15 metric tons flowed from the basin during the 2012 monitoring period, less than half the target load of 32 metric tons.

In the EAA, the most commonly used BMPs are more precise fertilizer application methods, refined stormwater pumping practices and erosion control measures to reduce the amount of phosphorus transported in stormwater runoff to the Everglades and connected water bodies.

In the C-139 Basin, the South Florida Water Management District recently worked with landowners to develop a more comprehensive and stringent BMP plan for each farm that better addresses nutrient challenges in the basin.

To meet the requirements of Florida's Everglades Forever Act, the amount of phosphorus leaving the EAA must be 25 percent less than the amount before phosphorus reduction efforts started.

Data shows that a 71 percent phosphorus reduction was achieved for the 2012 monitoring period.

Over the past 17 years, the BMP program has prevented 2,565 metric tons of phosphorus from leaving the EAA.

In the C-139 Basin, a BMP program has been in place for the past nine years. In November 2010, the program requirements were enhanced to better control nutrient runoff.

**More on Glades.** In other Everglades news, the Florida Department of Environmental Protection is moving forward with the state's permitting process to implement a plan to improve water quality in the River of Grass.

Last year, Gov. Rick Scott directed DEP Secretary Herschel Vinyard Jr. and South Florida Water Management District Executive Director Melissa Meeker to work jointly with the U.S. Environmental Protection Agency to expand water quality improvement projects and achieve the ultra-low water quality standards established for the Everglades.

Months of scientific and technical discussions led to the comprehensive plan, which the department will enforce through state-issued permits and consent orders that include milestones for project completion and enforcement mechanisms to ensure the goals are met.

The plan calls for the district to build about 6,500 acres of additional stormwater treatment areas and close to 100,000 acre-feet of associated water storage.

Many core project components will be

Angelo's is now appealing that decision to an administrative law judge.

Trash zapping in St. Lucie. St. Lucie

County officials are now working with a New Jersey-based company to build and run a trash-zapping facility at the county landfill.

Commissioners voted to allow County Attorney Dan McIntyre to open talks with Covanta Energy Corp. to permit, finance, construct and operate a thermal conversion facility to process municipal solid waste for the county.

In April, county commissioners terminated their 2007 contract with Atlantabased Geoplasma because of economic conditions, a lack of money and the city of Fort Pierce's decision to leave the county landfill.

They also put out a request for qualifications to build a thermal conversion facility in its place.

**Kudos for St. Lucie.** For the third year in a row, the St. Lucie County Board of County Commissioners has earned recognition from the National Association of Counties' Achievement Awards program, winning a 2012 award in the environmental protection and energy category

for its solar and energy loan program.

Florida Notes voted to allow McIntyre to open tand operate a thery to process municicounty.

NACo's achievement awards recognized innovative programs developed by counties in 21 different categories.

St. Lucie was one of nine Florida counties to be recognized in the 2012 achievement awards program, along with Broward, Clay, Collier, Flagler, Hillsborough, Miami-Dade, Palm Beach, Pasco and Sarasota counties.

During the past three years, St. Lucie

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**Dade City waste.** Angelo's Aggregate Materials is back at it. They want permission to shred waste tires, and crush asphalt and concrete on the site of their existing construction and demolition debris landfill in Dade City.

Angelo's has operated the construction landfill since 2004 with a permit from the Florida Department of Environmental Protection for waste tire processing at the site.

But the company lacks county permission to process such waste and if it's found, they have to transport the waste somewhere else. The county has to make land-use and zoning changes in order for Angelo's to process the waste on site.

DEP officials recently rejected a new permit application from Angelo's to build a scaled-down, 30-acre household garbage landfill on the site, the second permit rejection since 2009.



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# Closed Boca golf course may be developed as stormwater retention area

THE WATER

### Staff report

The closed Mizner Trail Golf Club at Boca Del Mar west of Boca Raton is an inviting target for developers who have proposed building 300 homes on the abandoned fairways and putting greens.

But residents with homes surrounding the former golf course have raised strong objections to the construction of homes that would be shoe-horned into their community.

Neighborhood leaders and county officials may have discovered a possible solution. Working with the South Florida Water Management District, they proposed using a portion of the 130-acre former golf course as a water retention area.

The plan would create a series of stormwater retention lakes on the property. The project would also become a mitigation site that would serve as compensation for environmental damage from building elsewhere.

Randy Smith, a spokesperson for the district, said the talks on the proposal are preliminary. One major stumbling block is the potential \$10-million price tag for the property.

Rosemary Nixon, a Boca Del Mar resi-

dent and leader of the opposition to development on the golf course, acknowledged that there have been talks, but said there has not been anything decided at this point.

Boca Del Mar is a 40-year-old 2,000acre community west of Military Trail. Originally it had two golf courses, but one was closed in

2005. Currently there is a deed restriction limiting the use of the 130 acres as a golf course. But residents recently discov-

ered that the deed restriction expires at the end of 2012.

The Palm Beach County Commission turned down two proposals in 2006 and 2011 to build high-end houses and townhouses on the property.

The last vote was 4-3 against a plan submitted by the Seimens Group that called for using lush landscaping to blend in with the surrounding neighborhood.

Davenport sewer project. Bids for two city of Davenport sewer projects

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brought good news to the city as the bids came in lower than expected.

City Manager Amy Arrington said one bid for the city's wastewater treatment plant came in just under \$2 million, close to engineer estimates.

However, the low bid for a sewer collection system to be installed in old Davenport east of U.S. 17/ 92 was \$1.7 million less than projected.

The news was good for the city, but Arring-

ton said engineers still have to verify the bids.

The U.S. Department of Agriculture is providing \$4.9 million in loans and a \$2.3 million grant to fund the project.

The Florida Department of Environmental Protection has been pressuring towns whose residents use septic tanks to build centralized wastewater treatment systems to prevent the continuing pollution of lakes and streams.

In May, Davenport decided to build their own sewer system instead of hooking up to existing sewer plants operated by Haines City and Polk County.

Marco Utility cited. The Florida Department of Environmental Protection cited Marco Island's water and sewer department for violating state-imposed rules for water quality monitoring,

Despite the violation, Jeff Poteet, general manager of the department, said the violation did not result in any contaminated water flowing through the distribution system

Poteet said the department gathers 40-45 potable samples of water each month and turns them over to the DEP, which checks for bacteria levels.

On May 23, Poteet said a sample was collected on Banyan Court that the DEP said failed its coliform bacteria test. DEP regulations require a retesting within 24 hours of the first sampling at that location and both upstream and downstream of it.

Marco technicians failed to collect the additional samples within 24 hours, hence the DEP rules violation.

Poteet noted that Banyan Court is a culde-sac making it difficult to determine what would be considered upstream or downstream.

Resampling on June 12 found that samples passed DEP tests.

Polk stormwater utility fee. Polk County Commissioners voted in late June to impose the county's first stormwater utility fee for unincorporated areas of the county.

The measure passed by a 3-2 vote. The fee for the average homeowner will be \$54.30 per year and will be placed on tax notices along with other county fees such as fire protection and garbage collection.

The \$54.30 fee is based on a typical single family home containing an average of 4,030 square feet of surface including roofs and driveways. Larger and smaller homes will be charged proportionately.

Homeowners can apply for discounts if they can show that they are taking care of some of the stormwater treatment and storage on their property without relying on the county's stormwater system.

The fee will be formally adopted at a public hearing on Sept. 13 as part of approval of the county budget.

A stormwater utility fee has been under consideration in Polk County since 1985, but has lacked political will in the past.

At the June meeting, the only speaker on the proposal was Mike Britt, director of Winter Haven's natural resources division, who voiced support for the fee.

# **DEP workshop provides marine industry** with environmental compliance assistance

### Staff report

The Florida Department of Environmental Protection's Northwest District conducted a workshop in July designed to provide environmental compliance assistance to Northwest Florida's marine industry.

Attendees of the workshop included marina and boatyard representatives, and marine retailers who conduct business within the district's 16-county jurisdiction.

"The future of our state's environment and economy depends on the health of our water resources," said DEP Northwest District Director Shawn Hamilton. "By educating and assisting specific industries, we are better able to work together towards the common goal of compliance.'

The department's goal is to achieve 100 percent compliance with all environmental regulations to protect the resources that provide safe livelihoods and healthy ways of life.

During the workshop, several regulatory specialists from DEP addressed industry-specific challenges and suggested best management practices that the marine industry can implement to ensure not only regulatory compliance, but a higher level of environmental protection.

For example, by learning proper vessel pressure washing techniques, boaters can protect Florida's waterbodies from contaminants such as oil, grease, paint chips and barnacles.



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Other BMPs include establishing a stormwater pollution prevention plan; establishing a used oil and petroleum management plan; installing pump-out connections at convenient locations and providing clear instructions for operating them; and keeping storage units locked except during times when trained facility employees are available to monitor proper waste segregation.

The Florida Clean Marina Program is designed to bring awareness to marine facilities and boaters regarding environmentally friendly practices intended to protect and preserve Florida's natural environment.

Since 2000, Florida Clean Marina has recognized 263 marinas, 38 boatyards and 17 marine retailers for their voluntary dedication to protecting Florida's aquatic resources.

For more information, visit http:// www.dep.state.fl.us/mainpage/programs/ clean\_marina.htm.

# Proposed mercury TMDL expected from DEP by mid-September

### By ROY LAUGHLIN

n early 2012, the Florida Department of Environmental Protection announced plans to have a mercury TMDL proposed by the end of September.

DEP staff has been working assiduously since then, traversing a maze of technical, legal and administrative requirements leading from proposal to rule. A draft of the rule was released in late spring and DEP staff has been busy at public hearings and information meetings since then.

In Chapter 62-302, Florida Administrative Code, the state characterizes mercury standards for water in each of the state's five waterbody classifications. The current standard is 12.5 nanograms per liter total mercury in Class I and III freshwater bodies and 25 ng/L total mercury in Class II and III marine water bodies. There are no state waterbodies currently classified in the fifth group: Class V navigation, utility, and industrial use waters.

These standards are among the starting points for the proposed standards. The goal of the proposed standards is to set mercury water concentrations that will lead to state-wide median tissue mercury burdens in edible fish from the current 0.3 mg/kg to 0.1 mg/kg.

DEP officials say that the proposed steps to lower mercury tissue burdens in fish will protect children and pregnant women, the two most sensitive human subgroups. This aspect of the DEP's proposal is relatively direct and has apparently received little criticism.

The controversial aspect of DEP's proposal comes from its attempt to characterize mercury dynamics in food chains as the basis for a water quality standard.

The links from inorganic mercury deposited into aquatic systems from atmospheric vapor followed by its bioaccumulation depends on microbial production of methylmercury.

It is methylmercury that bioaccumulates in food chains that begin with aquatic organisms. But there is currently no water standard for it.

The complexity of DEP's logic is that mercury bioconcentrations in fish—and ultimately humans—can be reduced by enforcing static water concentration standards and by reducing mercury loading from the atmosphere.

DEP supports its proposal by a statistical modeling analysis based on one of the most extensive data sets available.

In the early 1980s when largemouth bass in the Everglades were unexpectedly found to have very high mercury tissue burdens, the state began building its database. That led to a continuous sampling

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program that has produced a 40,000-plus item data set.

The database includes mercury levels in fish and other edible seafood, and water quality parameters that might influence mercury mobilization into food chains.

For part of the data set, the sampling effort was highly structured on an areal basis. It led to identification of 249 mercury-impaired rivers and streams and 725 mercury-impaired water bodies with a combined area of 12,994 square miles.

DEP's current proposal extends the current regulatory paradigm by lowering the mercury limits on tissue burdens of fish consumed by humans. The decision to lower the limit is based on the perception that Floridians eat more fish than the national average and will be better protected from mercury poisoning by a lower fish tissue standard.

According to DEP, 62 mercury poisoning cases, presumed associated with food consumption, were reported between 2005 and 2008. In 2009 and 2010, 14 and 13 cases, respectively, were reported. In the latter two years, the characteristics of reported cases was changed to a more restrictive set of symptoms.

DEP's recent analysis is the basis for a proposed ambient water quality standard of 1.25 ng/L for freshwater. The derivation method was similar for marine fish except that the data set included mercury burdens measured in 15 - 20 of Florida's top marine seafood species.

In spite of what might seem very different mercury exposures for freshwater largemouth bass and marine seafood species, the analysis indicated that an 86 percent reduction in mercury loading would meet the body burden criteria for marine fish. An 85 percent reduction would accomplish the same for freshwater largemouth bass.

The proposed values are statistics derived from modeling—median water concentrations that will affect bioaccumulation to meet the 0.1 mg per kilogram tissue concentrations in bass, explained Jan Mandrup-Poulsen, environmental administrator in the Watershed Evaluation and TMDL Section at DEP.

Because mercury bioaccumulation begins with mercury deposition but is significantly influence by biomethylation and food chain dynamics, Mandrup-Poulsen noted that site-specific control measures may come in a second round of regulatory efforts to address the site-specific aspects of mercury mobilization.

DEP conducted a series of meetings in June to debut its study and explain the results. Such meetings rarely receive much media attention. But this study was differ-

ent.

Less than a fifth of the mercury that needs to be reduced arises from Florida sources that DEP's rule—regardless of the number finally selected—could regulate. Mercury in fish depends critically on two sequential events: the loading of inorganic mercury as an atmospheric vapor or aerosol; and the methylation of that mercury by aquatic microorganisms.

DEP will pass along the responsibility for the regulation of mercury air emissions to EPA. All the southern states from the Carolinas to Texas with industries that emit mercury to air have dogs in this fight and many have been represented at DEP's meetings and are expected at the public hearings.

Florida's final decision on standards will influence EPA's regulations that bind other states.

Mandrup-Poulsen noted that DEP's current efforts are being made under the authority of the Clean Water Act, but that the agency has no similar authority to regulate mercury aerosols under the Clean Air Act. Effectively controlling aerosol depo-

**MERCURY** — Continued on Page 17

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By JUDITH R. MORGAN, MS, REM

he new buzzword "green" encompasses a myriad of efforts to sustain and improve the conditions of our environment and its future. The drive to conserve, replace and protect is the catalyst driving innovative solutions to laboratory processes that have historically used solvents that are toxic and cannot be effectively replaced.

U.S. Environmental Protection Agency Method 3511, "Organic Compounds in Water by Microextraction," does just that and is the latest technique offering a substantial reduction in solvent use allowing for a smaller semi-volatile sample size that is easier to handle and ship than the traditional 1000 mL sample.

In addition to 3511, another option is to use a revamped version of traditional EPA Method 3510.

Method 3511 currently resides in the new methods section of SW846. EPA both allows and encourages the use of these methods. Method 3511 was initially published in 2002 and is very similar to the procedure in Method 8011 with some mi-



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nor modifications. So the actual technique has been in use since 1992. For Method 3511, a 40 mL field sample

is collected in a volatile organic analysis vial. The sample is extracted via agitation and centrifuge with 2 mL of methylene chloride combined with 12 g anhydrous sodium sulfate.

The final analytical technique is considered prior to extraction to determine surrogates, etc. For EPA 3510, a 100 mL field sample is collected and the sample is extracted using the same process as a 1000 mL sample but the solvent is proportioned reduced due to the smaller sample size, resulting in a total of 18 mLs.

Considering the increased focus on reducing our carbon footprint, the environmental lab industry should be one of the most aggressive sectors to show sensitivity to the need for more effort to protect the environment.

While there is no replacement chemical for the widely used extraction solvent methylene chloride-required in the current suite of approved EPA methods-there are ways to reduce its use.

Method 3511 brings the required volume of 180 mLs, in traditional liquid-liquid extractions, to a mere 2 mLs, which is a 98.9 percent reduction in solvent. The revamped version of Method 3510 reduces the solvent volume by 90 percent.

The smaller container is easier to handle and pack, reducing breakage and bulkiness of field supplies, not to mention the additional benefit where a low purge well exists. In addition, the overall individual container weight is reduced by about 95 percent, making cooler size smaller and lighter, requiring less fuel to transport and less waste to be disposed of.

While the techniques are straightforward, validation for each class of chemicals and analytical technique to be used must occur. For Method 3511, the method suggests the removal of 5 mL of sample prior to extraction to allow headspace in the VOA vial to perform the extraction.

Where petroleum and related compounds are targets, removal of any sample should not occur due to density, solubility and overall lack of homogeneity. The entire 40 mLs is used and the extraction takes place in a more suitably sized vessel.

As for site representation, the volume is no smaller than a standard 40 ml VOA sample, which is widely accepted as a suitable sample size to represent VOC contamination. Where detection limits are a concern, innovative sample introduction techniques such as large volume injection address the difference.

It is a balanced trade-off—less sample collected but more sample introduced into the analytical system. Large volume injectors allow for instrument injection of sample amounts up to 250 uL, which is quite an increase over the 2-10 uL volumes of a standard system.

Like any other technique, optimization based on the actual analytical instrumen-

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E-mail:	Sponsorships	These techniques offer a number of
Phone:	\$200: Regular Hole \$250: Contest Holes:	benefits. While methylene chloride is cur- rently an inexpensive solvent, its toxic
Additional players in foursome:	Closest to Pin Closest to Pin Longest Drive/Men Dutting Contest Play the Pro (Sold)	properties make it a target for reduction. Any cost savings due to solvent reduction are unfortunately offset by the cost of the technology that must be included to main- tain the sensitivity necessary to meet regu-
Name Company	\$350: Trophy (1 available) \$350: Beverage Cart (3 available)	latory compliance levels. The most preva- lent benefits are realized through the field
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Single player registration is \$135 ( <i>checks payable to NTCC Inc.</i> ) Foursomes registering at the same time are \$450. (Save \$90.) If you'd like to take advantage of the foursome discount, you must submit payment in full of \$450 with this form.	<ul> <li>Mail to: FRC Golf Tournament PO Box 2175 Goldenrod, FL 32733</li> <li>FAX to (407) 671-7757 or E-MAIL mreast@enviro-net.com Questions? Call Eric Brown, SWS, at (727) 546-6193.</li> </ul>	Editor's note: ESC has developed the use of 3511 and 3510 for PAHs, pesticides, PCBs and diesel/oil products. The method has the potential to be expanded to other compound classes.

### LABS === From Page 1

past year around the state as relatively flat for ESC, he is optimistic about the current year. In addition to petroleum work, he believes his company will capitalize on the benefits of reduced volumes from two years and several million dollars spent developing extraction methods that greatly reduce the quantity of samples needed.

For instance, instead of 1,000 mL of a substance, the methods may require only 40 mL. For substances such as semi-volatiles, there is a 90 percent reduction. The reduced amount cuts down on shipping costs, glassware, waste, solvent usage and pollution.

"Reduced volumes also produce better recovery and results and are just better all the way around," Moravec said. The extent of its reduced volumes effort has required a substantial commitment to investing in equipment.

Equipment investment also has been a big part of KB Labs' strategy to stay competitive in the mobile lab services niche. KB has increased its services to include newer equipment for quicker on-site analysis of PAH and TPH using ultraviolet fluorescence technology.

Headquartered in Newberry just outside of Gainesville, the company also added a hydraulic profiling tool to its membrane interface probe direct sensing services. Mostly for petroleum cleanup sites, the UVF technology is faster. The additional probe provides better hydraulic profiling of the subsurface.

"The staff has stayed the same, but we are retraining them on new equipment to better meet the needs of onsite analysis," said Todd Romero, director of operations for KB Labs. "Some of these tools are not regulated or certified allowing more flexibility with pricing and services and that provides an advantage."

In addition to expanding its equipmentrelated services, KB has expanded its client base from Florida to the entire Southeast U.S. region to stay competitive. One of its primary markets has been federal work and it has obtained a certification to allow participation in DOD work. They are also doing more work at excavation sites versus the assessment side.

Both Moravec and Romero said the economy seems to be at least holding steady in some areas and improving in others. "In some cases, it (the economy) is lightening up with some industrial sites starting to move forward. There's also some movement in land development," Romero said.

The economy, however, doesn't have a significant impact on labs that concentrate primarily on required regulatory tests like the Newberry facility of AMEC Environment & Infrastructure Inc. About a year ago, London-based AMEC acquired the lab which was formerly known as MACTEC Engineering & Consulting Inc. Toxicology Laboratory.

"A lot of our work is based on regulatory requirements such as NPDES permits, cleanups and wastewater treatment plants, which is largely economy-proof," said Dave Dickens, lab director for AMEC. He expects this work to stay steady but speculates there may be some growth in work related to recent numeric nutrient criteria.

Another aspect that gives his lab an edge is having a niche, like the mobile aspect of KB Labs. "There are not very many wet testing labs in Florida," Dickens said. "Usually the chemical and biology labs are separate and don't often offer some of the other services we provide."

Dickens said the long-standing issue of many labs trying to remain competitive by offering unrealistically low prices seems to be the same as it has been in recent years.

"We have kept our prices the same by staying in the middle, following the market and conducting cost analyses. We feel others may be pricing themselves out of business."

He thinks that merger and acquisition

LABS Continued on Page 8

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Accutest Laboratories SE Inc. 4405 Vineland Rd., Suite C-15 Orlando, FL 32811 (407) 425-6700 • Fax: (407) 425-0707 Dr. Harry Behzadi, Laboratory Director www.accutest.com	<ol> <li>Inorganic and organic analyses of SW-846 methodology including explosives and perchlorates</li> <li>Water, soil, air and wipes</li> <li>Total: 80 Engineers/Scientists: NA Technicians: NA</li> <li>NJ</li> </ol>	<ol> <li>Federal and national certification</li> <li>Electronic data deliverables including ADaPT, EQUIS, IRPMS; state forms available on demand</li> <li>16 years (under same ownership)</li> </ol>
Advanced Environmental Laboratories Inc. 6601 Southpoint Parkway Jacksonville, FL 32216 (904) 363-9350 • Fax: (904) 363-9354 Walter Kronz, Vice President wkronz@aellab.com www.aellab.com	<ol> <li>Six labs providing a full range of inorganic and organic testing, EQUIS and ADaPT EDDs, and courier services throughout Florida</li> <li>Drinking water, groundwater, wastewater, surface water, soil, sediment, industrial waste, hazardous waste and air</li> <li>Total: 94 Engineers/Scientists: 46 Technicians: 30</li> <li>FL</li> </ol>	<ol> <li>NELAP, GA, DoD ELAP</li> <li>SELECT AEL software enabling you to compare lab results to FDEP 62-777 limits, generates FDEP analytical summary forms and benzo(a)pyrene conversion tables</li> <li>18 years (under same ownership)</li> <li>Altamonte Springs, Gainesville, Miramar, Tallahassee, Tampa</li> </ol>
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- 3) 20 years (under same ownership)
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Dr. Dale Dixon, Laboratory Director

AMEC Environment & Infrastructure Inc. Biology-Toxicology Laboratory

(Formerly MACTEC E&C Inc.) 404 S.W. 140th Terrace Newberry, FL 32669 (352) 332-3318 • Fax: (352) 333-6622 Dave Dickens, Laboratory Director dave.dickens@amec.com www.amec.com

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1) NPDES effluent toxicity testing (chronic and acute); hazardous site sample

Engineers/Scientists: NA

(Laboratory technicians, taxonomists, lab QA officer, scientists/engineers)

biological oxygen demand (LTBOD) tests; TIEs/TREs; nutrient limitation;

macroinvertebrate, ichthyoplankton and algal taxonomy; statistical analyses

testing; dredged materials testing; bioaccumulation studies; long term

Engineers/Scientists: 8

2) All matrixes

3) Total: NA

4) GA

3) Total: 31

4) FI

sediment and soil

3) Total: 31 (Jacksonville)Engineers/Scientists: 144) TX

2) Salt and fresh water, sediments, soils, biota, polymers

- 1) NELAC, DoD ELAP, most SE states
  - 2) Project review and validation, data reviews, method development, information (data) management consulting3) 25 years
  - 1) NELAC, SC DHEC for taxonomy
  - 2) Ecological and lake management studies, stream condition index assessment, wetlands (restoration, delineation, mitigation) and T&E studies

3) 46 years

- 1) FDOH, Bureau of Laboratories; non-potable water volatile organics, solid and chemical materials
- 2) Mobile laboratories (multiple)
- 3) 20 years

EPA 8260/8021/8010/601/602
 Soil gas, groundwater, soil and sediment

3) Total: 2 Engineers/Scientists: 1
4) FL

## LABS

From Page 7

activity will continue with smaller labs being bought out by bigger ones and a lot of people retiring from older operations.

Dickens views his lab as a small part of a big company. AMEC is a global supplier of consultancy, engineering and project management services in addition to its specialized lab testing in Florida.

In terms of significant new regulations, standards and accreditation, the U.S Environmental Protection Agency recently issued a draft of recreational water quality criteria that answered speculation about new methodology.

"We were holding our breath because we didn't know if they would be moving to a new molecular method versus culturebased methods," said David Whiting, administrator of the biology section of the state Department of Environmental Protection's Bureau of Laboratories.

The culture-based methods will continue and the molecular methods will be an option for people such as beach managers who need the quicker turnaround time of a few hours to determine safe conditions.

The molecular options however don't distinguish between viable live bacteria or just having it present in a sample, which makes the culture methods better for testing involving wastewater treatment processes, Whiting explained.

Another possible change on the horizon involving methodology is the use of incremental sampling to decrease data variability and increase the representation of samples.

"This is a different way of compositing samples in the lab and doing site assessment," said Tim Fitzpatrick, administrator of the chemistry section for DEP's Bureau of Labs. "Other states have implemented incremental sampling methodology and we are in the initial states of exploring the possibility."

ISM can be used for soil sampling at



waste and petroleum cleanup sites. Fitzpatrick urges labs to begin learning more about how to conduct ISM since there is almost no lab capacity to support it in Florida.

The Interstate Technology & Regulatory Council created an ISM Team in 2009 to develop guidance for implementation.

Also in the works is the enactment of the 2009 accreditation standards from The NELAC Institute which will replace the 2003 standards. A symposium this month will present draft standards in numerous areas such as proficiency testing, calibration standards, and detection and quantification procedures for discussions by the full committees.

"We feel these represent big improvements and labs should track what is going on with these standards," said Fitzpatrick.

Inspections for lab accreditation in Florida could undergo changes in the future since the state Department of Health is now examining options for shifting them to the private sector.

In addition to staying informed on changes to regulations and accreditation, Fitzpatrick urged labs to become involved in organizations such as the Water Laboratory Alliance, a part of the Environmental Response Laboratory Network that provides the drinking water sector with a network of labs able to respond to emergency situations involving contamination events whether they are accidental or intentional.

"Membership allows easier access to sharing workloads in cases of emergency, such as a water lab unable to verify the safety of samples due to hurricane damage," said Fitzpatrick.

In terms of data handling, Fitzpatrick said the Division of Waste Management is testing version 6.2 of ADaPT, the agency's automated data processing tool. This version seems to have solved previous issues and won't require significant changes.

Having the latest version of electronic

LABS **Continued on Page 10** 

### **Environmental Laboratories Serving Florida - 2012** continued

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

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- Engineers/Scientists: 130 3) Total: 250 Technicians: 75 4) TN
- 1) Full service laboratory analyzing environmental and drinking water parameters. Providing defendable data in organics, inorganics, metals, microbiology and nutrients. ADaPT reporting, field and courier services. PhD chemist on staff.
- 2) All water matrices, soil, sediment, waste, oil and air
- 3) Total: 49 Engineers/Scientists: 24 Technicians: 25 4) FL
- 1) Drinking water scans, agency format, THMs, HAAs, SOCs, VOCs, HPC, total & fecal coliforms, Enterococci, metals (trace ICP, GFAA, CV), wet chemistry, TOC
- 2) Drinking water, wastewater, groundwater, surface water, stormwater, industrial wastewater, soil/sediments
  - Engineers/Scientists: 12 Total: 17 Technicians: 5

- 1) DoD-ELAP, NELAP, ISO
- 2) ESC will reprint COCs and labels, and deliver the kits to your office or site
- 3) 42 years
- 4) Orlando, Tampa
- 1) Florida DOH NELAC for over 1,000 analytes
- 2) EDDs, microbiologicals for routine water and wastewater, managers chair committess for The NELAC Institute (TNI)
- 3) In business since 1957 (55 years under same ownership)
- 4) Port St. Lucie, Madison, Marathon in the Keys
- 1) NELAC, FL, USDA soil permit
- 2) Field sampling following DEP SOPs, courier services, PDF reports, various EDDs; ADaPT deliverables
- 3) 4 years (23 as HARBOR BRANCH Environmental Lab) 4) Sanford

4)	FL	
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### **KB** Labs Inc.

25132 SW 1st Ave. Newberry, FL 32669 (352) 472-5830 • Fax (352) 472-5832 Kelly Bergdoll, President www.kbmobilelabs.com

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- 2) Drinking water, wastewater, soil and sediment, marina dredge, hazardous waste, food products
- 3) Total: 25 Engineers/Scientists: 19 Technicians: 4 4) FL
- 1) Certified mobile laboratories specializing in GC/MS 8260 volatiles, 8021 volatiles, BTEX, gas and diesel screening, dissolved methane, naphthalene, pesticides/ PCBs, PAHs, FLPRO, UVF TPH

2) Soil, water, soil gas

- 3) Total: 8 Engineers/Scientists: 6 Technicians: 2 4) FL
- 1) Analysis of broad spectrum soil, groundwater and air samples for general environmental issues, UST assessments, hazardous waste, industrial hygiene and other applications. Specializing in rapid development of customized analytical methodologies and solutions, including analysis of ambient air and bulk samples in support of Chinese drywall investigations
- 2) Groundwater, soil, drinking water, surface water, wastewater, haz and non-haz waste, air, wipe and other bulk samples
  - Total: 10 Engineers/Scientists: 4
- Technicians: 6

4) FL

3)

- 1) NELAP, W/MBE, State of Florida, SFWMD, Palm Beach County, SFWMD
- 2) Full field capabilities SW, GW, marina and lake sampling, 3-day TAT on most sampling, field training for MW & soil sampling per DEP protocols, custom EDDs
- 3) 17 years (under same ownership)
- 1) NELAP certified, W/MBE certified, plus NC, SC, LA, VA
- 2) Membrane interface probe (MIP), cone penetrometer (CPT), hydraulic profiling tool (HPT)
- 3) 14 years (under same ownership)
- 4) Cary, NC
- 1) NELAC accreditation, professional liability insurance
- 2) Competent individual attention to your projects, webbased project status and data access, experienced environmental PE on staff, custom analytical reports and EDDs, free courier and shipping services, ADaPT
- 3) 24 years (under same ownership)

# Federal rule updating test procedures for wastewater pollutants takes effect

### **By MELORA GRATTAN**

s of mid-June, environmental laboratory professionals who analyze regulated pollutants in wastewater will have more freedom to choose newer methodologies due to rule additions and revisions recently finalized by the U.S. Environmental Protection Agency.

These new and revised analytical methods for Clean Water Act programs are outlined in the agency's Final Methods Update Rule.

In addition to providing greater flexibility with more methods, the rule clarifies and corrects previously approved methods, includes new quality assurance and quality control requirements, and revises preservation and holding times for samples.

"We are excited about some of these new methods that will allow the exploration of new technologies," said Tim Fitzpatrick, administrator of the chemistry section in the Florida Department of Environmental Protection's Bureau of Laboratories in Tallahassee.

New methods development and testing are important parts of the chemistry and biology sections' operations, according to DEP.

As an example, Fitzpatrick cites a new method for total cyanide testing involving gas diffusion that will eliminate the need for distillation.

Similarly, ammonia can be analyzed following gas diffusion through a semipermeable membrane without the need to have previously demonstrated comparability with distillation, as was previously required.

The rule also contains several examples of allowable changes to methods under 40 CFR Part 136.6, which Fitzpatrick said is important. In terms of hold times, the rule simplifies the previous hold times for microbiological samples from six hours plus two hours for processing to a flat eight hours from the time the sample is taken, said David Whiting, administrator of the biology section for DEP's Bureau of Laboratories.

Previously, hold times for ambient water were not included.

EPA officials have said that all microbiological samples will now have to abide by the eight-hour limit, according to Whiting.

In addition to providing more test procedure options and revising hold times, the new Section 136.7 requires quality control activities for all analyses.

"This reflects an attempt to get all laboratories to run quality controls. Some methods didn't include that before," said Jerry Parr, principal of Catalyst Information Resources LLC.

"I think it is good for labs because it gives them more options, and it is good for clients because there is more quality control and assurance," Parr said.

"Some labs might complain because some old methods aren't approved, but that's not valid because there is a reason for the change. Plus, they should be using the most current methods," he said.

Parr has 25 years of professional experience in environmental chemistry. Based in Texas, he provides information services to lab professionals.

The Final Methods Update Rule is also called "Guidelines Establishing Test Procedures for the Analysis of Pollutants Under the Clean Water Act; Analysis and Sampling Procedures."

A copy of the Federal Register notice is available at www.epa.gov/scitech/methods and the final rule is at www.regulations. gov under Docket ID: EPA-HQ-OW-2010-0192.



## Does Your Remediation Site Require Oxygenates?

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## Six Labs Means More Local Service and Faster TAT



# Environmental Laboratories Serving Florida - 2012 continued

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
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	<ol> <li>Acute and chronic NPDES toxicity testing, toxicity identification and reduction evaluations, ion imbalance toxicity studies (MSIIT)</li> <li>Domestic and industrial treated effluents, remediation site discharges, storm- water discharges, reverse osmosis reject, product testing</li> <li>Total: 10 Engineers/Scientists: 5 Technicians: 5</li> </ol>	<ol> <li>NELAP accredited</li> <li>Toxicity consulting, supply high quality bioassay organisms for testing</li> <li>23 years (under same ownership)</li> </ol>
Microbac Laboratories Inc. 158 Starlite Drive Marietta, OH 45750 (740) 374-2741 • Fax: (740) Debra Elliott, PhD Debra.Elliott@microbac.com www.microbac.com	<ol> <li>Full service environmental and microbiology laboratory</li> <li>Surface and groundwater, drinking water, wastewater, soil/sediment, air, industrial waste, tissue, biota</li> <li>Total: 55 Engineers/Scientists: 41 Technicians: 14</li> <li>PA</li> </ol>	<ol> <li>46 states, Puerto Rico, DoDELAP, ISO 17025, NELAC (FL) DOECAP (pending)</li> <li>2) Explosives, chemical weapons, algal toxins, speciated metals, CWGTPH, phytoremediation, PCR</li> <li>3) 43 years (under same ownership)</li> </ol>

## Environmental microbiology/biotechnology laboratory specializing in molecular biological tools (DNA & PLFA) such as qPCR quantification of *Dehalococcoides* Almost any matrix (soil, groundwater, sediment, biofilms, bio-trap samplers,

Engineers/Scientists: 4 Technicians: 7

- 1) NA
- 2) Innovative bio-trap samplers, consulting services, and edible oil retention studies

1) FL NELAC, SFWMD-SBE, FDOT/UCP-MBE, FL-OSD Hillsborough County DBE/SBE, Tampa Port Authority

2) Free local courier service, rush TATs available, custom

EDD formats, ADaPT, electronic reporting

3) 37 years (four years under same ownership)

4) Tampa, Jacksonville, Pompano Beach, Miami Lakes

3) 20 years (under same ownership)

SBE, city of Tampa MBE/SBE

3) 10 years (under same ownership)

2) Field sampling, courier services

1) NELAC, NAICS 541380

2340 Stock Creek Blvd. Rockford, TN 37853 (865) 573-8188 • Fax (865) 573-8133 Greg Davis, Director

### gdavis@microbe.com www.microbe.com

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### Millennium Laboratories Inc.

12721 Race Track Road Tampa, FL 33626 (813) 925-3871 • Fax (813) 925-3872 Kathy Sheffield, Lab Director ksheffield@mlabs-fl.com www.mlabs-fl.com

### Pace Analytical Services Inc.

8 East Tower Circle Ormond Beach, FL 32174 (386) 672-5668 • Fax (386) 673-4001 Mike Valder, Sales Manager mike.valder@pacelabs.com www.pacelabs.com

### 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.com www.palmbeachlabs.com

# 3) Total: 154) TN

filters)

- 1) Volatiles and semivolatiles by GC and GC/MS, including BTEX, PAH, solvents, pesticides, PCBs, petroleum hydrocarbons; metals by ICP, GFAA and CVAA, TCLP/SPLP
- 2) Water, soil, sediment, sludge, groundwater, wastewater, air
  3) Total: 10 Engineers/Scientists: 5 Technicians: 3
  4) FL
- Full drinking water and environmental testing services. Monitoring for CERCLA, RCRA, NPDES, SDWA, UCMR, RCRA/UST and CWA
- 2) Drinking water, environmental water, groundwater, surface water, soil, sediment, air, biota
- 3) Total: 66 Engineers/Scientists: 33
  - sts: 33 Technicians: 16
- 4) MN

- Volatiles, fuel oxygenates, semi-volatiles, pesticides, FL PRO, metals and TCLP/SPLP on both water and soil samples
- Water, soil and air
   Total: 8

4) FL

- 8 Engineers/Scientists: 4
- Tech/Admin: 4
- 1) NELAC certified, CSHA certified, W/MBE for SFWMD, small business for Palm Beach County, WPB, school boards and the state of Florida Office of Supplier Diversity
- 2) Field sampling
- 3) 7 years (under same ownership) with 56 years of combined experience

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The St. Johns Riverkeeper Lisa Rinaman



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# **FDOH reviews privatization of** enviro-lab certification program

### By JEFFERSON S. FLOWERS, PhD

hanges in Florida's laboratory certification program have heated • up again this year.

As you may recall, the 2010 Florida Legislature directed the Florida Department of Health to prepare a review and justification of the department's programs. Internal staff at the department conducted the review.

FDOH staff concluded that the Florida environmental lab certification program should be privatized.

But after additional study, it was determined that the federal primacy designation that the state of Florida currently maintains would be in jeopardy if the lab certification program was converted completely to a private-sector format.

This spring, the 2012 Florida Legislature passed new language that states: "The Department of Health shall contract for the evaluation and review of laboratory certification applications, and laboratory inspections.'

This language includes verbiage requested by the American Council of Independent Laboratories. ACIL is the trade association representing independent, commercial, scientific and engineering firms and is incorporated in the state of New York.

The new law only requires the FDOH to contract out the external review part of the program and permits the department to retain control over the final decision part of the process. Florida's primacy under the federal Safe Drinking Water Act is thereby assured.

The new FDOH plan is to solicit information from firms interested in lab certification to assess what components of the existing program would be appropriate to be transferred into the private sector.

To that end, FDOH sent out a request for information on June 1 to 16 firms, two of which are in Florida. FDOH started a

review of the responses it received June 15 to determine what marketplace resources could assist the department in complying with the new law. There is no specific date targeted for review completion.

This has been quite a journey, moving from a state-run and state-controlled program to a state contracted-out inspection that adheres to a national standard (TNI/ NELAC) with final approval being reserved to the FDOH.

It's a changing world out there for lab certification. Stay tuned.

Jeff Flowers is the president and technical director of Flowers Chemical Laboratories, headquartered in Altamonte Springs. He is currently president of the American Environmental Laboratory Association, a member of TNI-AB, and serves on the Environmental Laboratory Accreditation Board as Lab Management Work Group Leader. He can be reached at jeff@ flowerslabs. com.

#### LABS From Page 9

deliverable programs such as ADaPT is extremely important for labs to stay competitive and deliver more convenience to their clients, Kostzer said.

Moravec agrees about its importance. "We have had clients say if you can't produce data in this specific format then we won't use you. There are more on-line capabilities in terms of accessing data in more user friendly formats, but this is an area that smaller companies tend to struggle with it.'

He added that his lab has a system that customizes reports in a way that is easy to use, accurate and efficient.

Despite its many challenges, Moravec's view of the environmental lab industry's immediate future is positive. "We have seen business increase. Governments are spending a little more money and becoming more fluid. I see good things coming for the environmental business as a whole."

## **Environmental Laboratories Serving Florida - 2012** continued

### Lab name and contact information

### **Phoslab Environmental Services Inc.**

806 W. Beacon Rd. Lakeland, FL 33803 (863) 682-5897 • Fax (863) 683-3279 George Fernandez, Vice President georgeaf@pes-enviro.com www.pes-enviro.com

### Sanders Laboratories Inc.

1050 Endeavor Ct. Nokomis, FL 34275 (941) 488-8103 • Fax (941) 484-6774 Henry Mason, President henry@sanderslabs.net www.sanderslabs.net

### Short Environmental Laboratories Inc. 10405 U.S. Hwy. 27 South Sebring, FL 33876 (863) 655-4022 • Fax (863) 655-5820

- 1) Capabilities/specialties, 2) Sample types, 3) Personnel info, 4) State of incorporation
- 1) Full service environmental laboratory: extractable organics, metals, general chemistry, pesticides, herbicides, PCBs, volatile organics, nutrients
- 2) Potable and non-potable water, solid and chemical matrixes
- 3) Total: 15 Engineers/Scientists: 8 Technicians: 3 4) FL
- 1) Surface water and groundwater monitoring, facility compliance and process control monitoring, ASR and injection well analysis
- 2) Drinking water, wastewater, groundwater, surface waters, soils and sediments, food, materials
- 3) Total: 21 Engineers/Scientists: NA Technicians: NA 4) FL

Total: 17

4) FL

- 2) Drinking water, wastewater, surface water, ground water, soils sediments
  - Engineers/Scientists: 4 Technicians: 10

1) Certs., 2) Add. capabilities, 3) Years in bus., 4) Other locations

- 1) NELAC, MBE, Professional Geologist license
- 2) Geologic services and permitting
- 3) 48 years (under same ownership)
- 1) NELAP: Drinking water, non-potable water, solid and chemical
- 2) Full field capabilities;
- 3) 21 years (11 under same ownership)
- 4) Two locations: Sarasota and Fort Myers
- 1) NELAC
- 2) Sampling
- 3) 23 years (under same ownership)

1) Inorganics, metals, nutrients

Dav	/id	Murto,	Laborat	ory	Director	
sho	rtla	ab@stra	to.net			

### SunLabs Inc.

5460 Beaumont Center Blvd., Suite 520 Tampa, FL 33634@ (813) 881-9401 • Fax: (813) 354-4661 Lori Palmer, President George Morrison, Business Development www.sunlabsinc.com

### **XENCO Laboratories**

4320 Old Road 37 Lakeland, FL (813) 597-9122 Michelle Williams, Account Executive michelle.williams@xenco.com www.xenco.com

h	1) Pesticide	s and herbici	des (organochlorine, organo	phosphates, carbamates,	1)
J	organics	, metals, inorg	ganics and explosives, pro s	peciation, TPH working	2)
	group				sta
	2) Air, tissu	ie, water, soil	, waste		
Mgr.	3) Total: 21		Engineers/Scientists: 10	Technicians: 5	3)
0	4) FL		C C		
	1) All envir	onmental ana	llysis for water, drinking wa	ter, soil, hazardous waste,	1)
	air and r	adio-chemist	ry		2)
	2) Water, so	oil, drinking v	vater, waste and air		3)
	3) Total: 90	)	Engineers/Scientists: 30	Technicians: 30	4)
	4) FL		C		
	,				

- NELAC, Florida; FL M/WBE; Tampa Port Authority SBE, City of Tampa SLBE/MBE
- Electronic reporting, method development, nonindard

analyses, ADaPT

15 years (under same ownership)

### NELAP, FL DOH, ELAP, MWBE. DOT MWBE

- Mobile on-site lab services, rad-chem
- 21 years (20 years under same ownership)
- Tampa, Orlando and Jacksonville
- Notes: 1. "NA" indicates that the survey question was "not answered" by the respondent.
  - 2. This lab directory reflects information provided by laboratory representatives on questionnaires returned in July and August, 2012.
  - 3. We are able to publish this list of Environmental Laboratories Serving Florida thanks to the lab industry in Florida. We appreciate the support we receive from these laboratories on a monthly basis, at our annual conferences, as well as for this annual listing.
  - 4. This directory will also appears on-line at www.enviro-net.com.

# Water management districts join forces on aquifer recharging effort

### By DAN MILLOTT

he Suwannee River and St. Johns River water management districts have a common bond—they both rely on the Upper Floridan Aquifer as their main source of fresh water.

The districts, in partnership with the Florida Department of Environmental Protection and other interested parties, are combining forces to pinpoint ways to better nurture the health of the massive aquifer.

The effort is dubbed the North Florida Aquifer Replenishment Initiative and draws support from across the region including Southeast Georgia.

"It's a basic concept," said Teresa Monson, public communications coordinator at the St. Johns River Water Management District. "We want to capture significant quantities of water and recharge the Upper Floridan at strategic locations within the general area of natural recharge or other areas that would have significant benefit to the aquifer."

To that end, the water management districts have retained Atkins Inc. as consultants who will study various ways to go about recharging the aquifer.

Jon Dinges, director of water supply and management at the Suwannee River district, said the study will look at two ideas for aquifer replenishment within their district.

One calls for capturing surface water, treating it and then injecting it back into the aquifer through wells.

A second approach involves capturing surface water at higher stages and trying to initiate recharge by using features of the natural landscape.

Dinges said the water resource devel-

opment project has been under consideration for a year.

Last fall, the districts qualified Atkins to do the study. The \$263,000 price tag will be split between the districts.

Warren Zwanka, interagency project manager for the St. Johns district said, there are several ways to go about securing water for recharge.

"It could be reclaimed water or it could be surface water," he said.

Meanwhile, the St. Johns district has initiated a project at the chain of lakes in Keystone Heights.

"The Keystone Heights pilot test is the first step in the district's long range vision to capture significant quantities of alternative sources of water," Monson said.

One issue the pilot test hopes to resolve is how much water is lost as it moves through the chain of lakes.

Zwanka noted that the Keystone pilot project will be one potential solution the Atkins study will look at.

But he cautioned that, in many cases, it would be a more practical approach to inject water directly into the aquifer than to convey it over long distances from its source.

Recognizing that water from the Upper Floridan is a high priority in the region, Monson listed its range of destinations as local springs, streams, rivers, lakes and wetlands and, importantly, as the area's primary source of potable water supply.

In searching for sources of recharge water, WMD officials are considering reclaimed water from wastewater treatment plants, collection and storage of surface water from rivers at times of high flow, and the collection and storage of stormwater.

While the Atkins work will take 12-14 months to complete, Zwanka noted that

# Tampa, SWFWMD augment water flow from Hillsborough River to Tampa Bay

### By ROY LAUGHLIN

n April, the city of Tampa started drawing water from Sulphur Springs and releasing it to the Hillsborough River just below the Rowlette Park Dam.

"The purpose is to build a low salinity zone in the river," said Sid Flannery, chief environmental scientist at the Southwest Florida Water Management District. "The low salinity will benefit estuarine-dependent species that use the river, but the real benefit will be to the river itself."

In 1916, Tampa dammed the Hillsborough River, creating a reservoir for the city's public drinking water system. During the rainy season, the dam minimally affects freshwater flows into Tampa Bay.

But during the spring and early summer dry season, the freshwater flows past the dam through Hillsborough River's lowest reaches and into Tampa Bay are typically very low—sometimes nonexistent.

With the diversion diverts water from the reservoir into the drinking water supply, the lower Hillsborough River can become too salty. justment to maintain desired salinity and temperature profiles in the lower reaches of the Hillsborough River and adjacent Tampa Bay.

Flannery said that Sulphur Springs is not being drained to implement this project. Its established minimum flows will be maintained before water is diverted.

This is the first of several water sources that will be rerouted to the Hillsborough River. Others include Blue Sink in East Tampa, Morris Bridge Sink near Temple Terrace and the Tampa Bypass Canal.

These will be connected to the Hillsborough River via a yet-to-be-completed canal. The time frame for connecting all the sources is about two years.

Flannery said that these sources are expected to supply sufficient fresh water when needed. If not, others may be identified and used to maintain the district's targeted minimum flows.

The pipeline and pumps from Sulphur Springs cost about \$5.3 million. The entire project, drawing water from as many as five sources, is expected to cost at least \$22.9 million. The city of Tampa will pick up a little more than \$13 million of the tab; the district will fund the balance. SWFWMD mandated this project in 2007 under the district's authority to set minimum flows in rivers in its district. Diversion of Hillsborough River water into Tampa's drinking water supply was cutting off the flow substantially. Flannery said that taking out the century-old dam was not considered an option., as its use was simply too established. When asked if this project is a harbinger of future diversion/augmentation projects in the district, Flannery said that few if any other rivers in Southwest Florida have dams on them and because this dam was capable of stopping all freshwater flows, these circumstances are unique. When fully operational, the augmentation project will ensure that at least 12.9 million gallons per day will be delivered to the Hillsborough River to lower salinities in the river below Rowlette Park Dam and adjacent Tampa Bay.

other efforts toward aquifer enhancement are in progress continually.

In September of 2011, the two water management districts and DEP entered into an agreement to foster closer ties on mutual problems that center around the viability of the Upper Floridan Aquifer.

The retention of Atkins and the subsequent study is part of that interagency agreement.

The cooperative effort includes the formation of a stakeholders advisory committee; the development of a shared tool to predict water resource impact; a study by both WMDs of regional groundwater decline; a focus on creating consistency in the establishment of minimum flows and levels within the districts; the collection and sharing of science-based data; and the development of a regional water supply plan.

The stakeholder advisory board conducted its first meeting on June 25 in Palatka at the headquarters of the St. Johns district.

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The lack of freshwater adversely influences estuarine communities that depend on the subtle mingling of fresh and salt water in Tampa Bay.

The current replumbing is an cooperative effort between the city of Tampa and SWFWMD to restore the lower Hillsborough River's freshwater character and to provide benefit to estuarine organisms that live at its mouth.

According to Flannery, the minimum flows are targeted at 20 cubic feet per second for nine months of the year and 24 cfs for April, May and June.

"That's an important time because of nursery use. The river is also saltier (due to lack of rain), so more flow helps create low salinity zones," said Flannery.

To get this water, the city and water management district will tap several sources.

Water from Sulphur Springs, the first source tapped, is being pumped through a two-mile pipeline and is under constant ad-



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# Palm Beach County restores drinking water well monitoring program

### By DAN MILLOTT

he Palm Beach County Commission-faced with a general reluctance by utilities within the county to pony up-has reinstated a \$500,000 program to test drinking water well fields.

The reversal followed an earlier budgetary decision to drop the program and shift the costs to the various water systems in the county. The county commission sought to have the water companies pick up the costs based on the volume of water they use.

But when only the Delray Beach, Lantana and Lake Worth systems indicated they would go along with the county proposal, it became apparent the commission costshift plan wouldn't fly.

County Commissioner Burt Aaronson, in voting to restore the program, said the commission was obliged to protect county citizens. "Water is not something we should be fighting over," he said.

A 1966 voter decision created the pro-

gram that regulates the handling, storing and production of chemicals and other hazardous materials to guard against potential contamination to water supplies.

The regulations were directed at gas stations and oil change operations, dry cleaning plants and other industrial facilities. The proposal was put on the ballot after a number of contamination cases were found to be close to dozens of drinking water wellfields around the county.

To fund the testing of wells, Palm Beach County imposed fees on nearly 1,000 businesses. The fees ranged from \$60 to \$200 annually, but only raised about \$100,000 to meet the cost of monitoring and inspection.

That represented a shortfall of \$500,000 to cover program costs that had to be made up via property tax revenues.

The commission, grappling with budget problems brought on by falling tax revenues, eventually opted to try to sell the idea of having the utilities pick up the cost. But the plan was not well received.

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Delray Beach said they would be willing to step up and a pay their share. The city had experienced some contamination near their wellfield in recent years.

Richard Hasko, Delray's environmental services director, reasoned that monitoring and protection was a better investment than incurring the cost of a cleanup.

But with only three water systems agreeing to the commission proposal, those systems and the county water system would have covered just 47 percent of the wellfields in the county.

One city, Boca Raton, contended they would be able to do the testing at a lower cost than the county was going to charge.

County Commissioner Karen Marcus wondered why West Palm Beach, with its repeated water problems, opted out of the testing program. The city contended that it gets most of its water from lakes and taps into wells only in emergencies.

With county-wide funding restored, none of the cities will have to pay for the testing. County inspectors will keep tabs on potential polluters.

## Mount Dora takes steps to improve area lakes

### By PRAKASH GANDHI

he city of Mount Dora in Lake County is addressing a serious problem with stormwater pollution by taking steps to improve water quality in two of its lakes.

The quaint town north of Orlando is working on a major stormwater management program aimed at keeping pollution out of area lakes.

The projects are focused on Lake Gertrude and Lake Dora, where water quality has suffered in recent years. City officials say that Lake Gertrude is a pristine body of water. Lake Dora gets a lot of its nutrient pollution from Lake Apopka, the

### TRI-STATE = From Page 1

all the demands," he said.

Tonsmiere said the authorized withdrawal of water from Lake Lanier, Atlanta's source of drinking water, is 705 million gallons per day "but over 200 million gallons per day has to be returned to the river."

He acknowledged that the state of Georgia controls the water flow in the rivers of the state. But "this decision does not touch on how the state of Georgia manages the water resources in Georgia," he said.

He indicated that may be an issue to be litigated at a later date.

Tonsmiere said that another issue remains unsettled: the use of water by one state at the detriment of downstream states, in this case Florida and Alabama.

The legal point is that water in the rivers is subject to interstate rules. Tonsmiere noted that Magnuson's ruling would have forced the states to negotiate, but the Court of Appeals ruling stopped that.

In essence, Magnuson said without congressional authorization, water use from Lake Lanier would be cutoff in three years. The clock has been ticking since he made the ruling in 2009,

Georgia Gov. Nathan Deal said the de-



sprawling lake that has undergone years of restoration efforts.

One of the efforts involves the installation of three stormwater catchment units at the discharge points of pipes leading into Lake Gertrude and Lake Dora.

The catchment units are large mesh bags that are attached to the headwall. Debris and trash are captured in the mesh before they are washed into the lakes.

In addition, the city's stormwater department is installing nutrient separating baffle boxes into the stormwater system. The boxes are designed to remove much

### DORA = **Continued on Page 15**

cision of the Supreme Court affirming the Court of Appeals reversal confirmed Georgia's contention that drinking water was always an authorized use of Lake Lanier.

The Apalachicola Riverkeeper was not the only organization disappointed by the Supreme Court's refusal to consider the case. The Florida Department of Environmental Protection was disappointed that the Supreme Court would not be reviewing the earlier lower court decision.

DEP Spokesperson Jennifer Diaz said the decision "could result in unbalanced management of the reservoir system, diverting more water from Lake Lanier for local municipal purposes and depriving Florida of the water flows needed to support the ecology and economy of the (Apalachicola) river and bay."

In late June, the corps said they have the legal authority and technical capability to accommodate net withdrawals of 190 million gallons per day annually from Lake Lanier and ensure flows of at least 1,381 cubic feet per second downstream to Atlanta by 2030, a request made by Georgia.

But Robbins offered a caveat: "It is important to note that this legal opinion only addresses whether the corps has the legal authority to operate the project to accommodate Georgia's request. It does not in any manner indicate the corps must, should or will exercise its discretion to operate the project to meet the request."

The corps also noted that before any decisions are made on the reallocation of water storage supply, implementation of new operational schemes or updating of new operational manuals, the agency would evaluate environmental effects and reason-



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able alternatives under the National Environmental Policy Act.

The agency also recognized the requirement for public participation in the process. Both Tonsmiere and Diaz noted that there are more potential legal battles down the road.

"The department will continue to engage in discussions with Georgia and Alabama and await decisions of the U.S. Army Corps of Engineers on Georgia's water supply request based on the authority given by the 11th Circuit," said Diaz. "At that time, the department will evaluate further actions."

Both Alabama and Georgia have demanded that the use of the ACF system water resource should be directed to water supply and industrial development.

Florida, on the other hand, is dependent on the amount, timing and duration of freshwater inflows into the Apalachicola River, which plays a critical role in Florida's ecosystem and economy.



## Day One

- Thursday, Oct. 11, 2012
- 9:00 Keynote Address from the Conference Chair Nick Albergo, PE, DEE, Principal, HSA Engineers & Scientists, Tampa
- 9:30 Session 1A: Enhancing Anaerobic Bioremediation of Chlorinated Ethenes in Low-pH Aquifers Brad Elkins, MS, Technical Support Manager, EOS Remediation LLC, Raleigh, NC
- 10:00 Session 1B: Alternatives for Successful Bioremediation at Low pH Jeff Roberts, MS, Laboratory Manager, SiREM, Guelph, Ontario, Canada
- 10:30 Break
- 11:00 Session 2A: DNAPL Identification, Characterization and Mapping Techniques Cal Butler, PG, Senior Geologist, Black & Veatch Special Projects Corp., Tampa
- 11:20 Session 2B: Using the MiHPT to Characterize a Solvent Plume Brad Carlson, Manager, Direct Sensing, ZEBRA Environmental Corp. Tampa
- 11:40 Session 2C: Application of High Resolution Characterization and Three-Dimensional Imagery to Develop an Effective Conceptual Site Model Jill Johnson, PG, Senior Hydrogeologist, Geosyntec Consultants, Titusville
- 12:00 Day One Luncheon, Sponsored by Jamson Environmental Shale Gas Initiatives in the U.S.. Chuck Whisman, PE, Chief Technical Officer Groundwater & Environmental Services, Exton PA
- 1:30 Session 3A: Surfactant-Enhanced Groundwater Extraction for Expedited Remediation David Sheehan, PE, Senior Engineer, and Lydia Ross, EIT, Engineering Supervisor Groundwater & Environmental Services, Inc., Ft. Lauderdale
- 2:00 Session 3B: Coupling Polymer Flooding with Bioremediation for Enhancing the Distribution of Biological Amendments and Microorganisms Sean Davenport, Env. Research Chemist, Carus Remediation Technologies, LaSalle, IL
- 2:30 Break
- 3:00 Session 4A: Laboratory and Field Evaluation of a Novel Liquid Amendment Containing Lecithin and Ferrous Iron John Valkenburg, MS, PE, Senior Engineer, FMC Environmental Solutions, Dewitt, MI
- 3:30 Session 4B: Biogeochemical Iron Reduction for Dechlorination of Chlorinated Solvent Plumes– Status of Practice Shift from Biotic to Abiotic Degradation Pathways James Studer, MS, PE, Managing Principal, InfraSUR LLC, Albuquerque, NM
- 4:00 Session 4C: Evaluating Organic Substrates as Soluble DVI Transport Mechanisms Donovan Smith. PE. President. JRW Bioremediation LLC, Lenexa, KS
- 4:30 Session 4D: In-Situ Chemical Reduction of Removal of Kepone and Other Pesticides Jim Mueller, PhD, FMC Environmental Solutions, Freeport, IL
- 5:00 FRC Reception
- 7:00 Night at City Walk

### Day Two

### Friday, Oct, 12, 2012

- 8:30 Session 5A: Oxidation or Reduction Some Thoughts on the Big Picture John Valkenburg, MS, PE, Senior Engineer, FMC Environmental Solutions, Dewitt, MI
- 9:00 Session 5B: Evolution of Innovative Technologies for Soil and Groundwater Remediation John Haselow, PhD, PE, President, Redox Tech LLC, Cary, NC
- 9:30 Break
- 10:00 Session 6A: Ozone and Hydrogen Peroxide Injection for Dissolved-Phase PAH and Creosote DNAPL Impacts Ernest Mott-Smith, PE, Remedial Practice Leader, Federal Services, Black & Veatch Special Projects Corp., Tampa and Tracy Deal, PE, Principal Engineer, Groundwater & Environmental Services Inc. Exton, PA
- 10:30 Session 6B: In-Situ Soil Blending with Activated Persulfate Barry Rudd, President, Exo Tech Inc., Monroe, GA
- 11:00 Session 6C: Disinfection, Pharmaceutical, VOC and PFC Removal with Coated Nanobubble Ozone William Kerfoot, President, Kerfoot Technologies Inc. Mashpee, MA

# **R**egistration and Hotel Information

## Continuing Education Credits: PE and LEP

National Technical Communications Co. Inc., producer of the Florida Remediation Conference, is an approved Continuing Education Provider (CEP 0004002) for the Florida Board of Professional Engineers. As a provider, NTCC offers Professional Development Hours for FRC 2012 to professional engineers who are licensed in Florida (and other states) as follows: Attend both days, earn 12 PDHs; attend Day One only and earn 6 PDHs; Day Two, 6 PDHs. **Sign-in is mandatory for PEs and your PE license number is required.** CEUs are also available for PGs in South Carolina, Alabama and other states where continuing education required for PG licenses.

In addition, FRC has qualified for continuing education credits through the International Society of Technical and Environmental Professionals Inc., INSTEP. Credits apply to those currently registered by this association. Participants will receive one CE credit for every actual hour of instruction. LEP's may enter their credits on the LEP Center Section of the INSTEP website.

### Hotel Reservations

Make your room reservations directly with the hotel. Go to our website at www.enviro-net.com and click on "Room Reservations at Caribe Royale" under the FRC logo or call (407) 352-1100. If calling, identify yourself as an attendee of the 2012 Florida Remediation Conference when booking your room. Double Queen and King suites are \$129/night; King Deluxe suites are \$149/night and villas are \$254/night. This special discounted room rate will be available until Sept. 16 or until the group block is sold-out.

### Registration

Registration for the full 2011 Florida Remediation Conference is \$395. Day One only is \$285 and Day Two only is \$235. The fee includes registration for the conference, conference manual on flash drive (binder as extra), continental breakfasts, beverage breaks, luncheons and the reception for Day One registrants.

To register for the conference, complete and return the registration form on the next page with payment in full to: NTCC Inc., P.O. Box 2175, Goldenrod, FL 32733, or fax your completed registration form with credit card information to (407) 671-7757. This is a secure fax number. (Purchase order numbers are accepted for government employees.)

We encourage you to register early. Conference registration is limited to avoid overcrowding. Please note: Payment in full is required to confirm your registration. Cancellations received before Sept. 11, 2012, will be refunded, less a \$75 service charge. No refunds will be made for cancellations received after that date. However, paid no-shows will receive a copy of the presentation materials upon request. Substitutions will be accepted at any time, preferably with advance notice.



# 2012 Conference Registration

October 11-12, 2012, Caribe Royale, Orlando, FL

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(indicate which day)	<b>Day 2</b> (Friday, 10	)/12/2011)	\$235
	Conference Bir	<b>1der</b> with copi	ies of all talks \$50
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- 11:30 Session 6D: Passive Groundwater Plume Treatment using Oxidant-Based Reactive Barrier-Experimental and Modeling Studies Pamela Dugan, PhD, PG, Technical Development Manager, Carus Remediation Technologies, LaSalle, IL
- 12:00 Luncheon Sponsored by Advanced Environmental Laboratories
- 1:30 Session 7A: Regulatory Panel Moderated by Glenn MacGraw, PG, FGS Group, Tallahassee Jorge Caspary, PG, Director, DEP Division of Waste Management Addtional DEP representatives from Petroleum/Dry-Cleaner Cleanup and Brownfield program
- 3:00 Break
- 3:30 Session 8A: ITRC, SuRF and ASTM: A Review of Recent Sustainability Initiatives Buddy Bealer, Shell Regional Manager, Nazareth, PA
- 4:00 Session 8B: Incorporating Sustainability into Remediation Lydia Ross, EIT, Engineering Supervisor and Michael Spievack, PE, Groundwater & Environmental Services Inc., Ft. Lauderdale
- 4:30 Session 8C: Using Recycled Glass in Flowable Fill for a Large Petroleum Contaminated Source Removal Project Angela Finney, Senior Geologist/Project Manager, AMEC E&I, Tallahassee
- 5:00 Conference adjourns

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# **Perspectives**

## Environmental enforcement: More than assessing fines, collecting money By JEFF LITTLEJOHN short-term, but it's important to focus our actions where

he Florida Department of Environmental Protection is charged with protecting Florida's natural resources, including our air, water and land. To do this effectively, the agency is divided into three primary areas: Regulatory Programs, Land and Recreation, and Water Policy and Ecosystem Restoration. Each area has a specific mission and employs a wide range of programs and actions to protect Floridians and our environment.

As deputy secretary for regulatory programs, I work with DEP's divisions of air, water and waste and six regulatory districts statewide to promote environmental stewardship and assure compliance with Florida's environmental laws.

These laws are important to both Florida's environment and economy. They ensure projects and sites are developed, built and operated in ways that protect Florida's air, water and other natural resources, along with public health.

DEP's long-standing policy has been to promote compliance with the law, first and foremost, to prevent environmental harm from occurring. If we see an opportunity to prevent a violation or change a behavior before environmental harm occurs, we have an obligation to do so as quickly and practically as possible.

We use a variety of preventive tools, including stronger permits, more effective monitoring and environmental assessment, and expanded compliance assistance and education to help Floridians understand and follow the law

Compliance rates across the department's regulatory programs are generally 90 percent or higher, and we continually evaluate them by conducting thousands of on-site inspections and reviewing hundreds of thousands of air and water quality data results every year.

With expanded and improved compliance assistance programs and an invigorated focus on the highest risk facilities and sites, even better compliance rates are possible.

A great example is the waste management program in DEP's Northeast District. By training nearly 600 external customers through DEP, local government and industrysponsored workshops, conducting on-site assistance visits and providing clear compliance manuals, the district's compliance rate for hazardous waste and used oil was 99 percent in 2011.

Statewide, we've seen the rate for significant noncompliance in hazardous waste facilities drop from almost 10 percent in 2009 to about 2 percent so far this year. This improvement has been accomplished even as total penalty amounts in that program have decreased significantly.

That doesn't mean that penalties are unimportant, but it certainly proves that good compliance can be achieved with a strong presence in the field, active compliance assistance and carefully targeted penalties that deliver a strong message.

Preventing noncompliance is the best way to enforce Florida's environmental laws. It makes more sense and saves money in the long run to prevent bad acts than to wait for them to happen and have to clean up the mess. And, as compliance goes up, overall penalty collections may, in fact, go down.

DEP is not in the business of collecting money, but helping Floridians preserve and protect our resources. This does not mean we won't enforce when necessary.

DEP is prepared and willing to take strong enforcement actions. However, as responsible public servants, we also take into account how serious the violation was, whether it was a first-time or repeat offense, whether it was due to ignorance or negligence, and whether damage

assessed by that program in the three previous years combined.

Enforcement is about more than simply assessing fines across the board. Penalties have to be targeted and we need to take other strong actions that change the behavior of the violator and deliver the message to others that environmental violations will not be tolerated.

One way we're doing this is by directing our inspectors to facilities that have historically had compliance problems or that present a higher risk to the environment. We know this may lower our reported compliance rates in the

they are most valuable to the environment and public health.

Across all districts and divisions, DEP is committed to following and enforcing Florida's laws. We're also committed to doing the right thing for our natural resources and the taxpayers-prevent environmental harm as cost effectively as possible through education, awareness and assistance, and enforce strongly and swiftly against those unwilling to act responsibly.

Jeff Littlejohn is the deputy secretary for regulatory programs at the Florida Department of Environmental Protection in Tallahassee.

# **DEP to quick-screen possible petroleum** contaminated sites

### By ROBERT C. BROWN, PE

n Florida, 11,000 sites where petroleum storage tanks may have caused contamination to the surrounding area are currently eligible for state-funded cleanup activities. While most of these sites are former or current retail gas stations, some mark a site where a petroleum discharge or spill occurred.

It's important to ensure that these sites are cleaned up properly, both to protect groundwater, which supplies public and private drinking water wells, and soil to which the public may be exposed. The Florida Department of Environmental Protection is currently actively providing 3,000 sites state-wide with remediation assistance.

The DEP's Division of Waste Management, Bureau of Petroleum Storage Systems, has initiated a new program to quickly assess the approximately 8,000 sites statewide that are not currently being assessed, monitored or remediated. On July 1, 2012, a new program called Site Characterization Screening took effect and staff began issuing work orders to private consulting firms for performing site assessments.

"The Florida Department of Environmental Protection is committed to assessing these potentially contaminated sites quickly and identifying those that pose a significant risk to human health and safety," said Jorge Caspary, PG, director of DEP's Division of Waste Management. "We will work with the responsible parties to provide remediation assistance where needed.'

This endeavor will take between five and eight years to complete, depending on the annual funding level appropriated for the cleanup activities out of the Inland Protection Trust Fund.

Once assessments are complete, DEP will categorize each site in one of three ways: 1) As a "potential for imminent threat to the environment or public health;" it will be remediated immediately out of priority order; 2) As "no contamination detected;" a No Further Action order will be issued; or 3) As "needs additional assessment or remediation;" it will return to the queue awaiting cleanup in priority order.

For sites needing further assessment or remediation, DEP will categorize the contamination remaining, determine what is required to close the site and present closure options to the responsible parties.

For more information, visit http://www.dep.state.fl.us/ waste/categories/pss/default.htm or call (850) 245-8839.

Robert Brown, PE, is bureau chief for the Florida Department of Environmental Protection's Division of Waste Management, Bureau of Petroleum Storage Systems.

# 75 percent recycling is within reach—but not with existing state programs

Letter to the Editor

### Dear Editor:

In a recent issue of the Specifier, Jorge Caspary, director of the Florida Department of Environmental Protection's Division of Waste Management, wrote about the prospects for achieving Florida's goal of 75 percent recycling. Sierra Club Florida supports this goal, but takes exception to some of Mr. Caspary's statements.

Florida, "the first in the nation" to count mass-burning of the municipal waste stream as recycling, should view this as a source of shame, not pride. Less than 1/3 of the energy saved by recycling materi-

als is produced when the material is burned in waste-to-energy plants.

Furthermore, WTE destroys valuable materials that would pro-

duce many jobs if recycled. WTE facilities are jobs-killers. Including mass-burn of MSW as recycling is more a reflection of the clout of Florida's waste-burning lobby than Florida's commitment to recycling. This inclusion is

collect and sustainably use this gas rather than emitting it, adding to our carbon footprint. To meet this sustainability standard, current landfill gas production methods must be revised to halt emissions of dioxins, mercury and other toxins.

Further, for new landfills or landfill cells, landfill gas from an under-liner collection system should not count towards recycling. For real recycling, organics should be source separated and anaerobically digested in closed containers to produce methane for energy and recover nutrients from the digestate.

> Florida's 75 percent recycling policy should encourage such separation and recovery. Instead, by counting all landfill gas recovery as recycling, Florida's 75

percent recycling goal encourages investment in underliner landfill gas recovery-an investment which, once made, creates an incentive to place more organics, including yard waste, in landfills.

to the environment, if any, can be remediated quickly.

While we did assess fewer total penalties last year, the average penalty amount was the third highest in the last six years. In fact, the largest single penalty over the last six years was assessed in 2011 for solid waste violations. That amount was actually more than the total penalties



Michael R. Eastman Publisher/Editor Goldenrod, FL mreast@enviro-net.com

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

so poorly thought through that it led to the preposterous

situation of some counties with mass-burn MSW facilities showing recycling rates higher than 100 percent, requiring adjustments to be made by the 2011 Florida Legislature to prevent this embarrassment.

Counting WTE as recycling will, in fact, make achieving 75 percent recycling even harder. We realize that DEP is bound by legislative action, but it does not have to extol the poor actions by the Legislature.

In contrast, California has enacted a 75 percent recycling requirement that does not include WTE as recycling. They will achieve it through real recycling. Real recycling involves separation and reuse of materials in the waste stream. In contrast, mass-burn MSW seeks to retain high-BTU materials, such as paper and plastic, in the waste stream so that the mass-burn facility can burn them to make electricity.

One may conclude that counting a mass-burn MSW facility as recycling is nothing short of Orwellian since, given that the financial success of mass-burn MSW facilities is highly dependent on selling electricity, such facilities act as a disincentive to real recycling.

Gas emitted from existing landfills is a source of global warming pollution. Sierra Club supports measures that

Mr. Caspary recognizes the need to increase demand and markets for recycled materials. Unfortunately, the Recycling Business Assistance Center program has been provided with no funding and is ill-equipped to achieve either of these functions. Florida could expect to create 100,000 jobs if it were as successful as Indiana in enticing recycling industries.

Lastly, enacting a beverage container deposit law would result in 90 percent recycling of beverage containers, now recycled at a rate of only about 20 percent. At a 90 percent return rate, a glass recycling facility would likely locate to Florida, facilitating the handling of this hard-torecycle material and bringing additional jobs.

Sierra Club Florida agrees with Mr. Caspary that 75 percent recycling is within reach. But the existing programs cannot achieve that milestone with integrity or in a manner that produces high-value jobs and avoids detrimental environmental impacts. Changes in Florida's recycling legislation could make that more certain.

Sincerely. E. Dwight Adams, PhD Emeritus Professor of Physics, UF Chair, Sierra Club Waste Minimization Committee

# Calendar

### August

AUG. 2-3-Workshop: ADaPT Training, Royal Palm Beach, FL. Presented by LDCFL Inc. Call (561)753-0483.

AUG. 3-Course: Backflow Prevention Recertification Review, Venice, FL. Presented by the University of Florida TREEO Center. Call (352) 392-9570 or visit www.treeo.ufl.edu.

AUG. 4-Course: Backflow Prevention Recertification Review, Bradenton, FL. Presented by the University of Florida TREEO Center. Call (352) 392-9570 or visit www.treeo.ufl.edu.

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

AUG. 6-Course: Refresher Training Course for Experienced Solid Waste Operators-4 Hours, Gainesville, FL. Presented by the University of Florida TREEO Center. Call (352) 392-9570.

AUG. 6-Course: Refresher Training Course for Experienced Solid Waste Operators-8 Hours, Gainesville, FL. Presented by the University of Florida TREEO Center. Call (352) 392-9570 or visit www.treeo.ufl.edu.

AUG. 6-7-Course: Refresher Training Course for Experienced Solid Waste Operators-16 Hours, Gainesville, FL. Presented by the University of Florida TREEO Center. Call (352) 392-9570 or visit www.treeo.ufl.edu.

AUG. 6-10-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. 6-10-Symposium: 2012 Environmental Measurement Symposium, Washington, DC. Cosponsored by The NELAC Institute and the U.S. Environmental Protection Agency. Call TNI at (817) 598-1624 or visit www.nelac-institute.org.

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

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

AUG. 7-10-Course: Wastewater Class B Certification Review, Gainesville, FL. Presented by the University of Florida TREEO Center. Call (352) 392-9570 or visit www.treeo.ufl.edu.

### DORA = From Page 12

of the dissolved nutrients that cannot be physically filtered out of the water.

The city has also installed 35 stormwater inlet filters. "These capture nutrients as they come off the roadway, before they get into the pipes," said Paul Ritter, stormwater and environmental manager for the city.

"The real issue with stormwater is that there is a very significant tree canopy," Ritter said. "There's a lot of oak trees and between January and March, we have a lot of tree debris coming into the stormwater system."

Along with other stormwater treatment programs, the measures are part of the city's fulfillment of the National Pollutant Discharge Elimination System permit from the Florida Department of Environmental Protection.

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

AUG. 8-11-Conference: FES/FICE 96th Annual Summer Conference & Exposition, Orlando, FL. Presented by the Florida Engineering Society and Florida Institute of Consulting Engineers. Call (850) 224-7121 or visit www.fleng.org.

AUG. 9-Course: Backflow Prevention Recertification Review, Destin, FL. Presented by the University of Florida TREEO Center. Call (352) 392-9570 or visit www.treeo.ufl.edu.

AUG. 9-Course: Backflow Prevention Recertification Review, Gainesville, FL. Presented by the University of Florida TREEO Center. Call (352) 392-9570 or visit www.treeo.ufl.edu.

AUG. 9-10-Course: LEED-AP O+M Overview and Exam Preparation, Gainesville, FL. Presented by the University of Florida TREEO Center. Call (352) 392-9570 or visit www.treeo.ufl.edu.

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

AUG. 10-Course: 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. 10-18-Course: Backflow Prevention Assembly Tester Training and Certification, Ft. Myers, FL. Presented by the University of Florida TREEO Center. Call (352) 392-9570 or visit www.treeo.ufl.edu.

AUG. 11-Course: 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. 11-Course: 4-Hour Refresher Course for Spotters at Landfills, C&D Sites and Transfer Stations, Tampa, FL. Presented by the University of Florida TREEO Center. Call (352) 392-9570 or visit www.treeo.ufl.edu.

AUG. 11-Course: Spotter Training for Solid Waste Facilities, C&D Sites and Transfer Stations, Tampa, FL. Presented by the University of Florida TREEO Center. Call (352) 392-9570 or visit www.treeo. ufl.edu.

AUG. 13-14-Conference: 2012 FRWA Annual Training and Technical Conference, Daytona Beach, FL. Presented by the Florida Rural Water Association. Call (850) 668-2746 or visit www.frwa.net.

AUG. 11-12-Course: Initial Training Course for Transfer Station Operators and Material Recovery Facilities - 16 Hour, Tampa, FL. Presented by the University of Florida TREEO Center. Call (352) 392-9570 or visit www.treeo.ufl.edu.

AUG. 13-17-Course: Backflow Prevention Assembly Tester Training and Certification, Destin, FL. Presented by the University of Florida TREEO Center. Call (352) 392-9570 or visit www.treeo.ufl.edu.

AUG. 13-17-Course: Backflow Prevention Assembly Tester Training and Certification, Destin, FL. Presented by the University of Florida TREEO Center. Call (352) 392-9570 or visit www.treeo.ufl.edu. AUG. 14-16-Conference: WASTECON, Washington, DC. Presented by the Solid Waste Association of North America. Call SWANA at 1-800-467-9262 or visit www.wastecon.org..

AUG. 18-Course: 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. 19-21-Conference: Pipelines 2012 Conference, Miami Beach, FL. Presented by the American Society of Civil Engineers. Call 1-800-548-2723 or visit www.asce.org.

AUG. 21-Course: EPA Lead Renovation, Repair and Painting Initial, Tampa, FL. Presented by Environmental Safety and Health Institute. Call (813) 626-8156 or visit www.eshi.com.

AUG. 21-23-Course: Asbestos: Project Design, Gainesville, FL. Presented by the University of Florida TREEO Center. Call (352) 392-9570.

AUG. 24-25-Course: Backflow Prevention Assembly Repair and Maintenance Training and Certification, Venice, FL. Presented by the University of Florida TREEO Center. Call (352) 392-9570.

AUG. 27-31-Course: Backflow Prevention Assembly Tester Training and Certification, Lake Buena Vista, FL. Presented by the University of Florida TREEO Center. Call (352) 392-9570 or visit www.treeo.ufl.edu.

AUG. 27-31-Course: Water Class A Certification Review, Gainesville, FL. Presented by the Univer-

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

AUG. 28-31-Course: Water Class B Certification Review, Gainesville, FL. Presented by the University of Florida TREEO Center. Call (352) 392-9570 or visit www.treeo.ufl.edu.

### September

SEPT. 5-6-Course: Microbiology of Activated Sludge, Gainesville, FL. Presented by the University of Florida TREEO Center. Call (352) 392-9570.

SEPT. 7-15-Course: Backflow Prevention Assembly Tester Training and Certification, Venice, FL. Presented by the University of Florida TREEO Center. Call (352) 392-9570 or visit www.treeo.ufl.edu.

SEPT. 9-12-Symposium: 27th Annual WateReuse Symposium, Hollywood, FL. Presented by the WateReuse Association and cosponsored by the American Water Works Association and Water Environment Federation. Visit www.watereuse.org/symposium27.

SEPT. 10-Course: Asbestos Refresher: Project Design, Gainesville, FL. Presented by the University of Florida TREEO Center. Call (352) 392-9570 or visit www.treeo.ufl.edu.

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

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"This program has been a real success," Ritter said. "There has been a significant reduction in the amount of nutrient pollution.

"The baffle boxes have collected hundreds of tons of nutrients. And the inlet filters will capture two to three cubic yards of nutrients in a month.

"We also do street sweeping, which is the most effective stormwater pollution reduction method. My motto is that 'it is cheaper to keep it out, than to get it out.""

The cost of the program varies widely from about \$200 a piece for the inlet filters to \$100,000 each for the baffle boxes.

To fund the program, the city has a stormwater utility fee in place and also receives grants from the Lake County Water Authority.

"I think the program has been working very well," Ritter said. "It is going to be a slow process before you see a noticeable improvement in the water quality of the lakes. But you have to start somewhere."

# **Introduction to DEP SOPs for Surface and Groundwater Sampling**

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Coordinator: Stephanie West, swest@treeo.ufl.edu or 352/392-9570 ext. 216



## PEER =

### From Page 1

ment statistics in 2011 with the previous year.

The DEP figures showed that in 2011, the total number of enforcement cases fell by more than a fourth and the DEP Office of General Counsel received the third lowest number of case reports in agency history.

Permit assessments dropped by a similar proportion while penalties actually collected sank by more than half. The number of big fine cases was also cut by half.

Enforcement actions with compliance follow-up plummeted nearly two-thirds from 2010. Other enforcement orders sank to levels not seen since the mid-1990s.

"In every major program area, there was a big drop in enforcement," Phillips said. "That does not bode well for 2012 and beyond."

Phillips blamed the decline in enforcement cases on the policies of top DEP brass. Agency leaders are directing staff to take a kid glove approach to enforcement.

In fact, Phillips pointed to a November 2011 memo from Jeff Littlejohn, the DEP second-in-command and deputy secretary for regulatory programs, which directs staff to refrain from taking enforcement actions except as an absolute last resort.

'One assumes he's getting his marching orders from the secretary of the depart-

# **Environmental Services**





ment," Phillips added.

But responsibility for the lax approach to enforcement also rests on the shoulders of the governor. "After all, Gov. Scott ran on a platform of cutting back on regulations," he said.

Not only are fines down significantly, but there has been a sharp decline in consent orders which aim to restore compliance at offending facilities.

DEP officials have said they are working closely with the regulated community to get facilities to comply with environmental laws and regulations. But the figures don't show greater compliance, Phillips said. They reflect a "turn-the-other-cheek" approach to enforcement.

"DEP would have you believe that when Gov. Scott took office, there was a big increase in compliance," Phillips said. "That is an absurd proposition."

He said the "enforcement-last" approach has several problems. Not only does it "roll the dice" on environmental protection, there is no compensation for public resource damage.

'What DEP has told these polluters is that we are not going to act against you if you violate your permits," Phillips said.

The extent of these problems was underlined in a new audit report from the DEP Inspector General that found a breakdown in air pollution enforcement in DEP's southwest district.

The problem was so severe that it may have damaged the reputation of the department with the local regulated community and the EPA.

"Being pro-business does not require that the keys to the agency are turned over to the polluters," the report states. "Previous administrators have shown that it is possible to be 'business-friendly' while simultaneously protecting Florida's environment."

Phillips said the rank-and-file DEP employees are not responsible for the sharp drop in enforcement cases. "Their hands are tied," Phillips said. "The program administrators know that if they don't toe the line, they are out of a job."

There has been intense lobbying by the business community over the past year to ease regulations. So far, under Gov. Scott, they seem to be winning the battle, Phillips said. "If you are a permittee who doesn't want to abide by the terms of your permit, what repercussions are there?"

"There needs to be policies in place that recognize that DEP is a regulatory agency and appropriate penalties are assessed for facilities that violate their permits," he said.

Phillips said the EPA also has a statutory responsibility to make sure Florida's environmental rules are being properly enforced. "EPA needs to come in and look at this. After all, DEP gets federal grant money to run its programs.'

DEP spokeswoman Diaz said that environmental protection goes well beyond simply issuing fines and collecting penalties.

It is DEP's responsibility to protect Florida's environment through management, stewardship and enforcing environmental laws, she said.

"In fact, a top priority for the department is creating a more efficient regulatory process that is consistent and protective of the environment," she said. "By improving our regulatory processes to make them more consistent statewide, and increasing our focus on customer service, we will help Florida's regulated entities better understand and adhere to environmental regulations."

DEP will continue to enforce the laws to ensure the highest standard of regulatory compliance, Diaz added.

"This is not an effort to weaken environmental standards," she said. "Along with improving our permitting process, our regulatory programs are also improving compliance with environmental standards through outreach activities.'

The department is also expediting its efforts to educate Florida's businesses about environmental requirements to increase compliance, Diaz said.

Editor's note: See related column by DEP's Jeff Littlejohn on Page 14.

## Clermont partners with county to protect lakes

### Staff report

Officials in Central Florida town of Clermont are working hard to make sure that stormwater runoff does not pollute the city's pristine lakes. Their focus has been on improving water quality in the chain of lakes, said Tamara Richardson, Clermont's director of engineering.

The Lake County Water Authority provides grants every year to help in the effort.

"All the new subdivisions have stormwater treatment systems," Richardson said, so the town has been retrofitting retention ponds, swales and underground boxes that filter pollutants in its older sections.

The town and the Lake County Water Authority recently partnered on a project to capture and treat some of the stormwater before it drains into Lake Minnehaha, part of the Clermont Chain of Lakes.

Because of its natural beauty, Minnehaha is designated as an Outstanding Florida Water by the Florida Department of Environmental Protection.

Workers revamped the Disston Avenue drainage basin, which feeds into the lake. They also installed baffle boxes that re-

**CLERMONT** = **Continued on Page 17** 



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# DEP issues guidelines for buying, surplussing state conservation lands

## By BLANCHE HARDY, PG

n June, the Florida Department of Environmental Protection issued "Guidelines for DEP's Review of Florida Water Management Districts Land Acquisition/Surplus/Exchange," establishing new criteria governing water management district land purchases, including a requirement for DEP approval for major purchases.

This comes in the midst of the districts' execution of DEP's April 2011 directive to review the approximately 2.5 million acres of conservation lands owned by the water management districts for potential surplus property sell off.

The public lands assessment process began in December 2011 and is scheduled to wind down in December this year. A round of district-wide public hearings has just been conducted to discuss the status of the surplus program.

So far, public comment regarding the program has been less than enthusiastic.

Funding for land acquisition has been declining since 2009. In 2011, water management district budgets were cut by more

### **MERCURY** From Page 5

sition will depend critically on authority the EPA has under the Clean Air Act.

EPA already has pending rules for large stationary emitters and for cement kilns that may adequately reduce atmospheric mercury loading. That may or may not be enough for EPA to meet its commitment to a consent decree issued a decade ago.

DEP and EPA are dancing a duet with Florida's standard-setting exercise. Once Florida establishes its criterion, then EPA will adopt that number for its regulatory efforts. Both agencies are under the courtordered consent decree.

DEP's September deadline will allow EPA to formally accept it and to meet EPA's commitment under the consent decree.

DEP officials will spend another six months getting this rule into Florida law. When formally proposed in September, a challenge period will open for several weeks. If the standard avoids or survives any challenge, an economic impact analysis will be performed. It is expected to indicate that compliance costs state-wide will exceed \$1 million.

In that case, the state Legislature must formally approve the rule. Approval is not expected until May, 2013. There are numerous conditional circumstances between the proposal as it now stands and a rule that will affect not only Florida, but eventually through the EPA's adoption, other neighboring states.

Assuming that a new lower mercury standard is passed, the general economic

than 30 percent through a reduction in property tax revenues. Hundreds of jobs were cut and future land purchase funding allocations were restricted

According to the Suwannee River Water Management District, the only district with a surplus program previously in place, "divesting surplus lands by sale or exchange reduces the district's land management costs and makes funds available for the purchase of lands with higher water resource value."

Each of the water districts plans to use proceeds from the sale of any surplus lands for additional land acquisition.

DEP's new guidelines allow the districts to make purchases under \$500,000 at 90 percent or less of appraised value without DEP permission, although purchase of adjoining properties within the same year require the districts to address all properties simultaneously if their combined cost exceeds \$500,000, therefore requiring DEP review.

Any land purchase of \$500,000 or more will require DEP approval.

The guidelines stress purchase of any lands at 90 percent of appraised value and

effect on Florida mercury emitters seems to be bearable. Most of Florida's coal-burning power plants, oil-fired plants and cement kilns have already made substantial efforts to reduce mercury emissions.

Some mobile sources such as cruise ships burning certain kinds of bunker fuels may be affected, according to Mandrup-Poulsen.

Nevertheless, critics have been vocal. Some take aim at DEP efforts to formulate such a restrictive rule considering that 80 percent of the mercury responsible for the problem comes from outside the state, and much of that from global biogeochemical cycles. And, if Florida emitters have already made substantial headway, what else should they be held accountable for?

'You do what you're responsible for," said Mandrup-Poulsen. "Not all Florida sources have had to do their fair share. Those that haven't must be held accountable."

To further explain that such efforts can make an improvement, he noted that in the 1980s, when waste-to-energy incinerators were identified as a substantial source of mercury entering food chains in South Florida, DEP's predecessor agency passed restrictive rules to reduce air emissions. The mercury level in birds attenuated rapidly after mercury emissions were sharply reduced.

Although all of Florida's lakes, rivers, and marine food chains are mobilizing mercury as part of a global biogeochemical process, DEP officials do not consider local regulatory intervention a wasted effort.

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acquisition through 50/50 split partnerships or land swaps. Acquisition of land through private conservation easement is also emphasized

Both programs-acquisition and surplus-are directed to demonstrate compliance with the districts' often reiterated core mission of "water supply, water quality, flood control and resource protection."

The surplus program also requires avoiding elimination of significant landscape linkages or conservation corridors, natural or cultural resources and public recreation opportunities including no-netloss of hunting.

Florida's environmental advocacy groups view the new DEP guidelines with some skepticism.

A great deal of conservation land was purchased when property values were much higher. To surplus these lands now could mean loss of land at what will be the

### **CLERMONT** = From Page 16

move floating debris. About 50 underground concrete chambers were installed to capture stormwater so it can percolate through the sand to filter out nutrients.

The water authority contributed more than \$200,000 to the project which will remove more than 80 percent of the polequivalent of bargain basement prices.

Rosa Schechter of Florida Commercial News noted in a July news posting that the districts "do have land which could be used for development, and the districts should be offering the acreage at a good price."

She also provides reference to opinion that development of these lands may not be the most cost-beneficial option.

To some extent this is an issue of trust. Many long serving and well regarded scientists and engineers are no longer with the districts. And there are new governing board members, as there always are with new administrations. The emphasis seems to have shifted from a deeply entrenched environmental stewardship stance to a more financial based management approach to water management.

Fiscal responsibility is good, but so is environmental conservation. The trick is to serve both masters both equal dedication.

lutants entering the waterway from the drainage basin. "The authority is completely supportive of our efforts," Richardson said.

"We want to make sure the chain of lakes remains a pristine body of water for years to come," she said. "It's slow-going, but we are working hard to make sure the



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# New National Research Council report critical of progress on River of Grass

By SUSAN TELFORD

new congressionally mandated report from the National Research Council states that "twelve years into a multi-billion dollar effort to save the Florida Everglades, little progress has been made in restoring the hydrology of the historical ecosystem."

And the news gets worse from there. 'Unless near-term progress is made to improve water quantity and restore water flow, ecosystem losses will continue, many of which would require decades to centuries to recover," said William Boggess, chair of the report committee, and professor and executive associate dean of the College of Agricultural Sciences at Oregon

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The 227-page report, "Progress towards restoring the Everglades: The Fourth Biennial Review, 2012," is an evaluation of progress made by the Comprehensive Everglades Restoration Plan.

CERP was launched in 2000 to reverse the Everglades' decline, while continuing to meet demands for water supply and flood control. The \$13.5 billion effort comprises numerous projects to be completed over the next several decades. To date, little progress has been made, and the last federally approved projects were in 2007.

The CERP is a 50-50 cost-share program. But to date, the non-federal funding side has been far greater than the federal funding originally expected. Between fiscal year 2002 and 2011, the federal government appropriated a reported \$854 million for CERP, while the state of Florida budgeted nearly \$3.1 billion.

It remains to be determined how much of that excess state funding is creditable to CERP cost sharing, because cost-sharing credits are dependent on project partnership agreements that are signed for each project only after federal authorization and appropriation of federal funding.

Federal funding for CERP has increased in the past few years, while state funding has generally declined after a peak in 2007.

A large portion of federal CERP funds has been directed toward planning and design, but increasingly federal funds are being directed toward construction.

Of \$561 million in federal CERP funding through FY 2010, \$420 million was spent on design (75 percent), \$101 million on construction of three authorized Generation 1 projects (Site 1 Impoundment, Picayune Strand, Melaleuca Eradication; 18 percent), and \$41 million on land acquisition (7 percent).

"In the very beginning, maybe some of the money could have been spent a little better," said Millie Radzikhovsky, NEPA permit coordinator for the CERP program.

### FEDFILE From Page 2

EPA to revise soot standards. The EPA is proposing to establish a new standard for soot particles in air to a range of 13 to 12 micrograms per cubic meter. The current standard for fine particle pollution, also known as PM 2.5, is 15 micrograms per cubic meter.

The EPA's proposal based on a range rather than a specific value is unusual.

By proposing a range, the agency will collect input from the public as well as a number of stakeholders including industry and public health groups to help determine the most appropriate final standard to protect public health, according to the agency.

In its announcement, EPA noted that PM 2.5 includes particles that penetrate deeply into the lungs and have been linked to a wide range of serious health effects, including premature death, heart attacks and strokes, as well as acute bronchitis and aggravated asthma among children.

The agency said that 99 percent of U.S.

"I'm not familiar with all of the research projects. There were a lot of meetings with too many agencies, all with their own agendas, a lot of arguing and people talking a lot for very long periods of time, but no resolutions were offered.

"Everyone had their own agenda and it showed." she said. "We did a lot of planning and spent a lot of time coordinating to get everyone working together. All of the money spent on the majority of the studies was well worth it because toward the end, the modeling was worth it.

'We worked hard at getting all of the permits and all of the projects coordinated. The districts really want to do something, but they never realized that they had to do everything," she said. "The due diligence needed to be done and it had to be done properly to get all of the permits, which we did."

In FY 2011, nearly 70 percent of federal CERP funds were directed to project construction. Non-CERP projects continued to receive a large share of South Florida ecosystem restoration funds and this funding has been relatively steady over the past four years.

The funds were dispersed among a large number of projects and agencies. Most of the funding was spent on design and construction.

One research project cited in the report was the design of a seepage wall.

CERP contains plans for seepage management projects east of WCA-3 and Everglades National Park to reduce eastward groundwater seepage and flooding of urban and agricultural lands.

The CERP L-31N Seepage Management Pilot project was intended to improve the design of large-scale seepage management solutions for the L-31N levee.

However the pilot project design, which involved bentonite slurry walls at depths of 77-82 feet below ground surface, was

### **GLADES** = **Continued on Page 19**

particles or the existing daily standard for coarse particles, both of which would remain unchanged.

The current standards for these two categories of particulates in air remain until the new standard is finalized.

The comment period, which opened in late June, will be open for 63 days.

EPA releases stormwater, wastewater guidance. In mid-June, the EPA released a new document, "Integrated Municipal Storm Water and Wastewater Planning Approach Framework."

It is intended to guide and assist EPA regional offices, states and local governments as they develop voluntary stormwater and wastewater management plans.

The new document focuses on integrated approaches to protect public health. Avoidance and reduction of overflow from wastewater systems and managing pollution from stormwater runoff are integral parts of the new framework.

The EPA based its new guidance on input from publicly owned treatment works managers, state water permitting authorities, local governments and environmental advocacy groups. The framework focuses on reducing inputs of untreated sewage and stormwater runoff that may carry pathogenic bacteria, metals and nutrients into local waterways. Those discharges may result in disease outbreaks, shellfish bed closings, beach closings, and fishing and swimming advisories. All of these can adversely influence local economies. Many communities deal with simultaneous effects of wastewater overflow and stormwater because combined systems, often including aging components, release both sewage overflow and stormwater runoff. The new guidance document will help local governments identify and solve the most critical problems first. The document is available on-line: http://cfpub.epa.gov/npdes/ integratedplans.cfm.



counties already meet, or are on track to meet, proposed standards for soot. No additional costs to meet the stricter standards

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will be required by these counties. The EPA's cost-benefit analysis indicated that estimated health benefits will range from \$88 million per year to \$5.9 billion. Implementation costs could be as low as \$2.9 million or as much as \$69 mil-

> The current proposal results from the settlement of a recent lawsuit.

The Clean Air Act requires the EPA to review air quality standards for air particle pollution every five years and to update them if appropriate.

The judge in the recent case found EPA had not met its five-year legal deadline to review air particulate standards.

The settlement requires the agency to issue final standards by Dec. 14, 2012.

In its announcement, the agency noted that the current rulemaking process has no effect on the existing daily standard for fine

### GLADES = From Page 18

estimated to cost more than \$16 million, which exceeded the Section 902 limit for

the total project cost. As a result, the L-31N Seepage Management pilot project was put on hold.

The Miami-Dade Limestone Products Association independently funded a smallscale seepage study along the L-31N levee during 2009-2011. The purpose of this study was to test the feasibility of constructing a large-scale groundwater seepage control project adjacent to Everglades National Park to mitigate the effects of limestone mining in the Lake Belt region. A 1,000foot long, 18-foot deep slurry wall was constructed in 2009.

Although the slurry wall was found to have an impact on groundwater flow velocities and direction, it did not perform as well as expected in preventing eastward seepage. Tracer studies showed that the slurry wall leaked, and subsequent analyses identified problems with its installation and design.

After additional field and modeling investigations, LPA determined that these problems could be rectified by changing the cement-bentonite mixture, modifying the construction techniques, enhancing onsite testing of the integrity of the slurry wall during construction, and deepening the slurry wall to 35 feet to intersect a low-permeability layer.

LPA proposed to construct an additional wall two miles in length, using these modified techniques, in exchange for wetlandmitigation credits. The Lake Belt mitigation committee approved this proposal in November 2011. Construction of the project began in February 2012, and the project is slated to-be-completed by July 2012.

The committee applauded the LPA project because "it provides a good ex-

### NOTES = From Page 3

County has received ten achievement awards for its programs and services.

**Folks and firms.** Greg Knecht, director of the DEP's Office of Ecosystems Projects, resigned to join The Nature Conservancy.

He had been at DEP for nearly 20 years and had overseen the department's efforts to set and implement statewide water quality standards.

Handex Consulting & Remediation - SE LLC has relocated its South Florida office from Delray Beach to 6555 Powerline Road, Suite 309, Fort Lauderdale, FL 33309. They can be reached at (954) 681-4077.

**Plant sold.** Cargill Inc. sold its Auburndale liquid feed plant to a Wisconsin company for an undisclosed price. The plant has the capacity to produce up to 50,000 tons per year of molasses-based liquid primarily for beef and dairy cattle.

Cargill built the plant in 1972. The company approached Quality Feeds last year about buying the plant. ample of incremental adaptive restoration, by providing tangible increments of restoration, while actively working to resolve questions that prevent implementation of the full-scale project. The project also offers the potential for substantial seepage management at little to no public cost."

With the state facing the threat by Miami federal Judge Alan Gold of imposing a \$1.5 billion U.S. Environmental Protection Agency cleanup plan, Gov. Rick Scott flew to Washington last October to pitch Florida's alternative plan.

The plan would commit Florida to an expanded slate of Everglades restoration projects pegged at an estimated \$890 million—considerably smaller price tag than the \$1.5 billion plan drawn up by the EPA that the judge threatened to impose.

Gold, in a 2004 lawsuit brought by the Miccosukee Tribe and the environmental group Friends of the Everglades, had issued a series of rulings blasting state and federal agencies for "glacial delay" and repeatedly failing to enforce water pollution standards tough enough to protect the Everglades. In 2010, he ordered the EPA to draw up a cleanup plan that water managers said they couldn't afford.

The Everglades settlement between EPA and the state was accepted by Gold last month.

"Until we can get our politicians to govern for the people and not special interest groups, the environment will suffer," said Pat Painter, environmental resources manager/sustainability for the city of West Palm Beach.

"If you do a development, you must do pre-treatment of the water. That's how we need to think," said Painter. "We're still pandering to Big Sugar or anyone using Lake Okeechobee as a septic tank. They need to be held responsible for cleaning it up."

Painter has been managing the city of West Palm Beach's environmental resources for over a decade and has worked diligently to achieve success of a functional model that manages water quantity, while also improving the water quality as it flows from Lake Okeechobee through the L-8 canal, into reservoirs, through Grassy Waters Preserve, and into Lake Mangonia where the city's drinking water is stored.

"Our project was successful because we worked together—the city, South Florida Water Management District and CH2M Hill," she said. "We developed adaptive management based on modeling. It worked."

One concern of the committee towards restoring the Everglades is that restoration efforts like the city of West Palm Beach's remain primarily focused on the periphery of the central Everglades, and consequently restoration efforts within the water conservation areas and Everglades National Park lag behind other portions.

GLADES \_\_\_\_\_ Continued on Page 20

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Land review in St. Johns district. The St. Johns River Water Management District is conducting an evaluation of the approximately 600,000 acres of districtowned property to ensure it continues to achieve water resource protection goals.

The evaluation will determine if any properties or parts of properties should be identified as surplus lands or should be considered for alternative uses.

The district has purchased land during the past 35 years to protect water resources. The properties provide areas for public recreation and environmental education, and protect natural and cultural resources.

Four public meetings were held across the district's 18-county area to provide information about the assessment process and schedule, and to receive public input.

The evaluation process will be completed and a list of any proposed surplus properties will be developed this fall for district governing board consideration at a public meeting in December. Advertising in the Florida Specifier is a cost-effective way to keep your

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# Mcclenny purchases property for biosolids land application

### By ROY LAUGHLIN

he Mcclenny city council recently approved the purchase of 114 acres for a biosolids disposal site. Currently, the city's wastewater treatment plant produces about 50,000 gallons of biosolids annually that require disposal. The land purchase, now in the final stages, will give the city full control over biosolids disposal in the future.

Roger Yarbrough, assistant city manager, said that meeting Florida Department of Environmental Protection rules was the biggest driver of the purchase.

Biosolids disposal "has to be done according to DEP rules, which will change in 2013," he said. The current rules were established in 2010 and have some 2013 deadlines approaching.

Currently, biosolids produced by the city's wastewater treatment plant are spread on a third party's land under a contractual arrangement with the owner. The property owner also accepts septic tank solids from other sources.

City officials fear that continuing to use a site where wastes from different sources are co-mingled creates potential liability issues.



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"We know what we're dumping. It is processed," said Yarbrough. But he can't say the same for what might be in the septic tank waste.

City officials believe they can better manage risk on city-owned land rather than rely on a contractor taking biosolids under contract.

The new site is pine forest, said Yarbrough. The 114-acre site will include a 200-foot conservation easement around its perimeter. The easement is intended to allay adjacent residents' concerns about contaminants migrating off site.

Initially, approximately 30 interior acres on the site will be used for biosolids application. The biosolids will be spread under the trees.

This is expected to increase tree growth rates, and provide harvestable trees about every 15 years. After harvesting, trees will be replanted and another subplot on the property will be used for biosolids spreading.

Yarbrough indicated that the plan is a sustainable one. The 114 acres is expected to be used for biosolid spreading beyond the foreseeable future.

When Mcclenny officials close the property deal, they will need to submit a

### **GLADES** From Page 19

The report also states that progress has been made to improve the system's water quality, such as reducing phosphorous and finalizing negotiations for additional water quality projects. However, there has been minimal success in increasing the amount and flow of water needed to restore the system.

Key environmental components that depend on the amount of water in the system, such as ridge and slough and tree islands, continue to degrade demonstrating that velocity, depth and duration of water in the Everglades are important controlling factors for the distinctive terrain of the Everglades: tree islands, ridge and slough topography, and peat accumulations.

These landscape components have been severely degraded by flow alterations during past decades and continue to suffer. Recovering additional losses will require decades, if not centuries.

Of the many projects under construction, the report's committee considers Mod Waters, non-CERP project, and the C-111 Spreader Canal, a CERP project, to offer promise of direct, significant effects in the central Everglades.

Without congressional action, project authorization could soon become a major impediment to the progress of the Everglades restoration.



nutrient management plan to DEP, according to Jeff Martin, water permitting supervisor with the Northeast District office of DEP.

Martin said that the permit is generally written for a crop program. He added that this may be the first permit in his district where trees are the crop.

The Mcclenny wastewater treatment plant with its 50,000 gallons of biosolids per year is considered a small producer. Unlike larger municipal facilities that are implementing technological treatments or processes to sharply reduce or eliminate biosolids, treatment plants like Mcclenny's have no economies of scale that help make the new technologies affordable.

Most of these smaller utilities have been leasing disposal sites or subcontracting biosolids land application. Although subcontracting disposal is not cheap, it has been a viable alternative for most utilities.

But new rules are making direct management seem more effective to reduce the long term risk from land spreading.

The city of Mcclenny is planning for a sustainable forestry site for its disposal site. Other rural Florida wastewater utilities are sure to take a second look at silviculture as a viable biosolids disposal plan.

To receive federal funding, individual CERP projects must be authorized by Congress. To date, only three projects have been congressionally authorized under Water Resource Development Act of 2007, and one additional project is under construction with programmatic authorization from WRDA 2000. Four additional projects await authorization.

So far, progress towards restoring the Everglades has been almost as slow in coming as the promised funding over the past few years. However, the state's recent \$890 million Everglades settlement does offer hope of continued progress.

For many Floridians, it will be a case of "show me the money."

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