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Volume 36, Number 6

## Manatee deep wells 5

Manatee County is considering a proposal to construct Class V and Class I injection well systems to receive up to half a billion gallons of phosphogypsum-contaminated wastewater currently contained in the gyp stacks at the former Piney Point phosphate mine.

## Sebring plant cleanup 8

The Sebring City Council approved funding for more cleanup work at the site of a former city-owned power plant. The Park Street Power Station once provided electricity to residents when the city operated its own power utility.

## Funding for Talleyrand 9

The site of a former fertilizer plant in Jacksonville's Talleyrand neighborhood will soon receive \$80 million for cleanup, just a small part of a recent record-breaking settlement between the EPA's Superfund Program and Anadarko Petroleum Corp.

## Caspary on PRP 10

The 2014 Florida Legislature approved a major overhaul of the state's Petroleum Restoration Program, one of the largest environmental cleanup programs in the country, with more than 17,000 facilities qualified for taxpayer-funded cleanup. Since 1988, more than 7,200 facilities have been cleaned up, approximately 3,200 are now undergoing assessment or remediation, and approximately 6,900 facilities await assessment.

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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 [mreast@enviro-net.com](mailto:mreast@enviro-net.com).

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## NWF report: Impacts of Deepwater Horizon oil spill still evident

By ROY LAUGHLIN

The National Wildlife Federation marked the fourth anniversary of the Deepwater Horizon oil spill with a report noting that ecological effects in the Gulf of Mexico as a result of the spill are still evident.

The report highlights a set of species across the taxonomic spectrum that are exhibiting unusual mortality or population fluctuations that are a result of exposure to oil, the oil dispersant Corexit, or both.

The list of species of concern includes both rare and common species. Among the rare species are Atlantic bluefin tuna, bottlenose dolphins, sperm whales, brown and white pelicans, common loons, seaside sparrows, deep sea corals and sea turtles, including Kemp's ridley turtles.

These species, some of which are on rare and endangered lists, had low or fluctuating population sizes before the spill. Species like the Atlantic bluefin tuna, sperm whales, and Kemp's ridley turtles spawn in the Gulf and, for them, the spill could not have occurred at a worse time.

Population declines of these species, according to the NWF report, are attributable to reduced reproductive success. Food chain exposure to oil and dispersants is indicated for some of the species, including pelicans and Atlantic bluefin tuna.

More troubling, perhaps, are the notable effects on species with usually robust populations, some of which support fisheries in healthy ecosystems. These include blue crabs, eastern oysters, foraminiferans (shelled amoebas) and red snapper.

While some of these species, such

as blue crabs, typically have wide annual population size variations, declines now reflect loss of habitat in the marshes and estuaries heavily oiled four summers ago.

**REPORT**

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Photo by Bob Boggus

Technician with Imperial Testing checks control panel of remediation system installed at the site of a former electricity-generating facility owned by the city of Sebring. The site has undergone a series of cleanup efforts since the mid-90s. See story on Page 8.

## Army Corps of Engineers delays Everglades restoration funding, again

By SUSAN TELFORD

Although the Central Everglades Planning Project sits prominently at the top of President Obama's list of urgent federal projects, the U.S. Army Corps of Engineers announced on Earth Day that it will not sign off on CEPP yet, again delaying funding that has been promised for Everglades restoration since 2007.

The decision to delay \$23 billion of funding for Everglades restoration projects added more fuel to the fire for environmental activists, already upset with recent corps' actions.

A year ago, the corps opened the St. Lucie Lock and Dam, dumping 136.1 million gallons of polluted water from Lake Okeechobee into the St. Lucie Estuary, causing extensive environmental damage.

According to corps spokesperson John Campbell, last year had a historic start to its rainy season. The season began a month earlier than normal, with April through July being the wettest four months in South Florida since 1932. He said they had no choice but to dump the Lake O water to avoid flooding.

The corps could have begun releasing up to 107.6 million gallons of lake water daily beginning this February under the Lake Okeechobee Regulation Schedule, but did not do so due to the adverse impact on the environment.

To lower the lake level while avoiding having to dump water into the estuary again, the corps moved 33.6 billion gallons of water south between November and April through stormwater treatment cells, sending three times more water south than the amount sent last year.

"The corps realizes that releases to the (St. Lucie) have an adverse impact on the environment. So discharges are really only made as a last resort," said Campbell in a statement to the press.

Although the St. Lucie Estuary has been spared from toxic dumping for

now, the corps' decision to delay funding for CEPP continues to aggravate those who want Everglades restoration work efforts to ramp up.

"Ignoring the summer's environmental and economic destruction caused by the Corps of Engineers dumping billions of gallons of polluted water into the Caloosahatchee and St. Lucie rivers and estuaries, the corps is showing callous disregard for the people and businesses affected by their

**GLADES**

Continued on Page 7

## Contaminated Media Forum convenes

Staff report

The effort to reconvene the Contaminated Soils Forum, under the new name Contaminated Media Forum, was the subject of a presentation in early May at the FRC-South Conference in Ft. Lauderdale Beach.

Originally convened in 1998, the CSF developed the methodology for global risk-based corrective action, among other things.

The forum is being reconvened to consider a range of issues through four primary work groups: Ecological, Background, Cleanup Target Levels, and Institutional Controls/En-

gineering Controls.

While these groups are the focus of the forum at the outset, the work is not limited to these four subjects.

The CMF is open to all interested parties including professionals from the public sector as well as consultants, attorneys, academics, environmental activists and all other interested stakeholders.

For more information, contact Richard Lewis with CRA in Fort Myers at (239) 936-0789, [rlewis@croworld.com](mailto:rlewis@croworld.com), or Brian Dougherty with DEP in Tallahassee at (850) 245-7503, [brian.dougherty@dep.state.fl.us](mailto:brian.dougherty@dep.state.fl.us).

# Federal appeals court upholds EPA coal combustion emissions rule

## Staff report

A federal appeals court upheld the U.S. Environmental Protection Agency's emissions standards for mercury and other air emissions from coal combustion. The regulations are aimed primarily at electricity-generating plants, smelters and other large coal combustion facilities.

The intention of the EPA rule, revised in 2012 following an initial court challenge, aims to reduce mercury emissions by about 90 percent.

That target was based primarily on the EPA's findings on the health effects of mercury exposure.

The court case, heard before the U.S. Court of Appeals for the District of Columbia, was bought by trade organizations and the governors of Michigan, Idaho, Ohio, Alaska and Kansas.

They alleged that EPA failed to adequately consider the \$9.6 billion annual cost of the regulation and its potential to reduce U.S. employment by 16,000 jobs.

The appeal court's panel of three judges upheld the EPA rule.

After the decision was announced, a spokesperson for an industry group claimed that almost 300 coal-fueled generating plants in 33 states will shut down and 544,000 jobs will be lost as a result.

In reality, this decision will have little impact on jobs but will likely hasten the conversion of U.S. electricity-generating plants to less expensive and more abundant natural gas.

Coal-burning plants have already invested \$130 billion to reduce coal combustion emissions. Many of these are likely to remain in use.

The court decision will have minimal impact on Florida's electric industry, which includes only a few coal-burning power plants, the largest of which are in Jacksonville, Orlando and Pensacola.

The plant in Pensacola is expected to shut down soon because of its age and costs to upgrade its emission controls.

**BP recertification protested.** In March, the EPA restored BP's qualification to bid on federal contracts, a move that environmental groups were quick to criticize.

The suspension, which took effect after the Deepwater Horizon Oil Spill in 2010, included a five-year probation period that the EPA's March decision shortened by about a year and half.

Not only does it allow BP to bid on offshore leases and other activities directly associated with oil production, but it allows BP to sell petroleum to the U.S. military.

U.S. Department of Defense sales are estimated to be worth about \$2 billion annually.

Environmental activists said that during probation, BP should have demonstrated a renewed pattern of responsible behavior.

But they claim that hasn't occurred, citing allegations of as many as 26 deaths in BP facilities over the last dozen years, and a spill of 1600 gallons of crude oil into Lake Michigan from BP's Whiting Refinery in Indiana in March, 2014.

Activists collected approximately 60,000 signatures on a petition asking the EPA to reverse this decision and reinstate BP's disqualification to bid on federal contracts.

**Lake Worth Inlet expansion.** Expansion of the Port of Palm Beach's Lake Worth Inlet received final approval from the U.S. Army Corps of Engineers in April.

This will allow both the deepening and widening of the inlet and port channel.

The approved plan calls for increasing the port's outer channel width from 400 to 450 feet, and the inner channel width from 300 to 450 feet. Channel depth will increase to 39 feet.

The maximum ship length that the port can accommodate will increase from 675 feet to 750 feet.

The environmental impact study considered input from five government agencies including EPA and the U.S. Fish and Wildlife Service.

The corps noted in its approval that the Port of Palm Beach had not had any similar improvements in the past 50 years.

A coalition of environmental activists criticized the corps' decision, citing environmental impacts to manatees, coral reefs and sea grasses, and noting that the new channel will bring ships 150 feet closer to the swimming areas around Peanut Island, a popular recreation area inside the port entrance.

They also claimed that homes and businesses around Lake Worth would now face increased flooding potential that could occur from the four inch increase in storm surge as a result of channel enlargement.

A court challenge has not been ruled out, according to a spokesperson for one of the environmental groups.

Increasing the channel depth is expected to provide \$7 million in additional revenue to the port and its tenants. It will also save the federal government up to \$850,000 a year on operation and maintenance costs.

Channel expansion is estimated to cost nearly \$89 million, \$35 million of which must come from non-federal sources.

The approval, which was in the form of an ACOE Chief's Report, is the first step in a prolonged process that may lead to federal funding to complete the project.

Ensuing steps involve a review by the U.S. Office of Management and Budget; then Congress has to authorize the project.

After it is authorized, a specific appropriations bill must be passed by Congress to fund the work.

Even the project's proponents ac-

knowledge that construction is likely years in the future.

**Assistance to small systems.** EPA's Office of Water announced \$12.7 million in grants to small drinking water and wastewater treatment systems across the country.

Plants serving fewer than 10,000 people and private well owners qualify as grantees who may receive training and technical assistance to improve operations and management practices, promote system sustainability, and to support practices that protect public health and the environment.

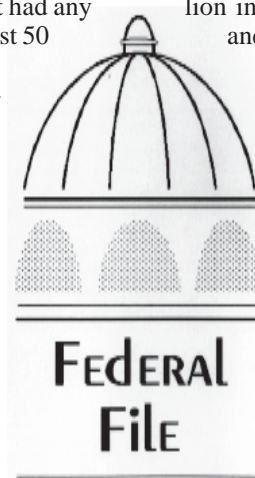
The bulk of funding will go to the National Rural Water Association and the Rural Community Assurance Partnership. Each organization will receive \$4.5 million in funding that will be used to help small public drinking water systems comply with the Safe Drinking Water Act.

The University of North Carolina at Chapel Hill will receive \$2 million "to improve the financial and managerial capabilities of small public water systems across the country."

The National Rural Water Association will receive an additional \$1.4 million to "improve operational performance at small publicly owned wastewater systems and decentralized wastewater systems."

The Rural Community Assurance Partnership will receive an additional \$300,000 to "inform public drinking water well owners about protecting their drinking water supply and improving water quality."

In making the grants, EPA noted that 97 percent of the country's 157,000 public water systems serve less than 10,000



**FEDFILE**  
Continued on Page 14

## ATTENTION

Consultants, Laboratories, Clean Up Contractors, Drillers, and Other Environmental Professionals



The Florida Environmental Contractors Association has formed and needs your participation.

FECA was created to represent all individuals and companies that directly or indirectly provide services related to the assessment and remediation of contaminated groundwater in Florida.

Unlike other environmental associations, FECA is focused on educating our legislators on the importance of funding programs designed to protect our most precious resources, and working closely with the Florida Department of Environmental Protection and other agencies to insure these programs are managed effectively and efficiently.

FECA will be an active voice in Tallahassee representing the interests of the groundwater cleanup industry. Please join us and be heard at the capitol.

For more information and to join the FECA, visit [www.fleca.org](http://www.fleca.org)

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## Efforts underway to cleanup waste found under Tallahassee Regional Airport runway

### Staff report

The city of Tallahassee will spend more than \$500,000 to remove waste found under their regional airport. Part of the airport was built on top of a former landfill.

When planning construction of the Tallahassee Regional Airport's largest runway, officials believed the construction area did not overlap the buried waste. But the construction company recently uncovered the garbage.

When they began digging under ground to run fiber optic cables, they ran into some of the debris from the former landfill that had to be removed.

The longer runway has been under construction since January. It is expected to reopen in about a year.

**Clean air.** Four Florida cities made the top 10 list of metropolitan areas with the cleanest air in the country. Sarasota, Cape Coral, Lakeland and Palm Bay made the list compiled by environmental scientists.

The cities' air health was evaluated by scientists from Environmental Health Engineering, a global consulting firm, who studied air quality criteria, including pollen counts, pollution and access to parks.

**EPA award.** Florida Power & Light has been chosen by the U.S. Environmental Protection Agency for its 2014 Clean Air Excellence award.

The award honors innovative programs that benefit communities, the environment and the economy.

The EPA recognized FPL's deployment of fuel-efficient vehicle technology—an important part of the utility's efforts to provide clean, reliable electric service to its 4.7 million customers throughout Florida.

FPL's typical 1,000-kwh residential customer bill has been the lowest among Florida's 55 electric utilities and about 25 percent below the national average for the past five years.

At the same time, the company's power plant system boasts one of the cleanest emissions profiles among utilities nationwide, largely because of investments in high-efficiency natural gas-fired generation, emission-free nuclear power and large-scale solar energy centers.

FPL said that since 2001, its investments in the efficiency of its power plants have saved customers more than \$6.5 billion on fossil fuel costs and avoided more than 60 million tons of carbon dioxide emissions.

In addition, FPL uses about two million gallons of biodiesel annually to power its utility trucks.

Its current fleet includes both electric and hybrid-electric trucks that use up to 60 percent less fuel and reduce exhaust emissions up to 90 percent.

At its newest plants, FPL installed electric-vehicle charging stations and a parking canopy with solar panels that use sunlight to help recharge electric vehicles at its headquarters.

**Sale of surplus land.** The Florida Department of Environmental Protection's Division of State Lands is making strides in turning a profit to benefit conservation efforts across the state.

The division is in the process of selling many state-owned surplus non-conservation lands to increase the budget for future purchases of valuable conservation lands.

Some of the recent and upcoming bids include five former prisons, with required minimum bids on those totaling more than \$17 million.

The move supports the vision of the 2014-2015 Florida Legislature, which gave DEP the authority to sell \$40 million worth of non-conservation land.

At this point, the division is on target to meet that goal.

The department currently has 15 surplus non-conservation properties in various stages of the disposition process with

an estimated value of about \$44 million.

Four additional bid openings are being held in the next 30 days for land in Hillsborough, Broward, DeSoto and Indian River Counties, which will yield at least an additional \$15.5 million, if the minimum bid is met.

**In memoriam.** Satish Kastury passed away in April. He was 63 years old.

Kastury worked for over three decades in the environmental engineering field as a specialist in regulatory compliance with extensive experience in hazardous waste management, permitting, compliance and enforcement at the local, state and federal levels.

As former environmental administrator of the hazardous waste regulation program for DEP, he coordinated the state's hazardous waste program with industry and various governmental agencies.

**Progressions.** SCS Engineers has hired Carlo Lebron, PE, to serve clients in

the southeastern region of the U.S. He will be located in their Tampa office and, as a project director, will help lead SCS's waste management practice for public and private clients in the region.

He has more than 15 years of experience providing comprehensive solid waste management services and landfill gas marketplace programs. He is the chairman of SWANA's landfill gas field services committee and helped develop their latest field manual.

Mark Gillette, PE, has joined Stanley Consultants as a senior drainage engineer in the company's Tampa office. He has nearly 25 years of roadway, drainage and traffic design experience on Florida Department of Transportation projects and local government, private development and water district projects.

In his new role, he will support Stanley's growth initiatives in the transportation and municipal markets. Stanley Consultants is a global consulting engineering firm with Florida office in Tampa, West Palm Beach, Sarasota and Miami.

## Florida Notes

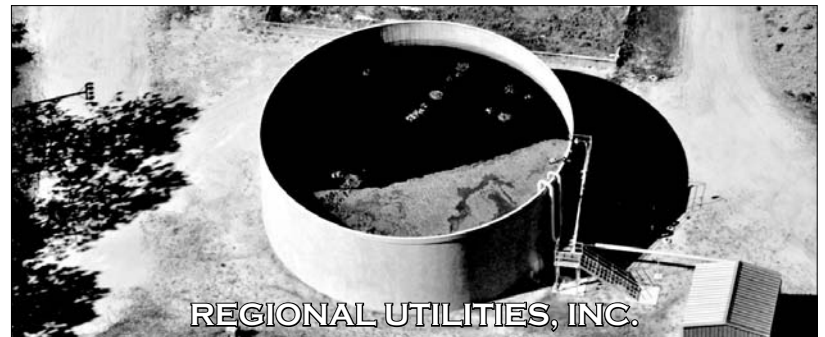


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# SRWMD approves first public-private partnership for water management, storage and dispersal

Staff report

The Suwannee River Water Management District Governing Board approved the district's first public-private partnership for water management, storage and dispersal with Anderson Land and Timber Company at the Otter Sink tract in Dixie County.

The project will provide storage for approximately 650 million gallons of water and will result in the hydration of more than 2,000 acres of wetlands.

Flashboard risers, ditch blocks and culverts will be used to recreate natural hydrology and cost-effectively disperse water for storage and management.

Other potential benefits of dispersed water storage include habitat restoration, natural aquifer recharge and downstream flood attenuation.

**Wahnetta water system improvements.** Representatives from the U.S. Department of Agriculture and the Wahnetta Water System in Winter Haven announced receipt of a federal grant and loan that will fund the removal and replacement of

30,000 feet of asbestos cement water pipe.

The community celebrated the announcement of \$3.72 million from the USDA, with more than \$1.9 million as a low interest loan and a \$1.77-million grant through the 2014 Farm Bill.

The funding will cover the costs for removing asbestos cement pipe, plus a new aerator, a new 220,000-gallon ground storage tank and three 800-gallons-per-minute high service pumps that will help provide clean water to the community.



**Port Canaveral receives kudos.** The Canaveral Harbor Inlet Sand Bypass Project earned top state ranking for 2014/2015 inlet man-

agement funding and, as a result, will receive a \$100,500 grant from the Florida Department of Environmental Protection for beach renourishment.

Port Canaveral officials said they strive to recognize the importance of Brevard County's beaches to the state's economy, and will continue to work to identify the financial resources needed to protect the valuable natural resource.

Port Canaveral has spent more than \$2 million on sand bypass and related beach restoration projects, with an additional \$2.2 million in state funds and \$45 million from the U.S. Army Corps of Engineers.

The funds were used to develop and implement the transfer of four million cubic yards of sand from the north side of the inlet, raising and extending inlet jetties to retain sand on the beaches, sand dune restoration, improvements to Jetty Park and the establishment of the Brevard County Federal Shore Protection Project.

**New IRL interim director.** Citing a heightened focus on the Indian River Lagoon, St. Johns River Water Management District officials announced a change in leadership last month, appointing Maurice Sterling as the interim director of the Indian River Lagoon National Estuary Program.

Sterling has worked as one of the district's leaders on the St. Johns River Upper Basin project, a \$250 million, 30 year, 247-square-mile wetland restoration effort considered by the district as a model for Everglades restoration.

Since 2011, the lagoon has lost 47,000 acres of seagrass, along with countless pelicans, manatees and dolphins due to massive algae superblooms.

The district launched a four-year Indian River Lagoon Protection Initiative last spring to restore the water quality of the lagoon, including funding of \$3.7 million to investigate the superblooms.

Beginning in the new fiscal year on Oct. 1, the district allocated an additional \$7.1 million to the initiative.

Sterling replaces Troy Rice, who will remain with the water management district in their Regulatory, Engineering and Environmental Services Division.

**ERP online at SRWMD.** Developers, consultants and others seeking an environmental resource permit from the Suwannee River Water Management District will be able to apply online beginning June 1.

"Currently, applicants can download an application through the district's website, but they have to either mail it in or bring it to the district's office," said Leroy Marshall, a senior professional engineer with the district. "With the new e-permitting system, applicants can apply for a permit and submit all the necessary documents at any time day or night."

In addition to the benefits to the public, the new process will benefit the district by reducing the use of paper and streamlining the process of getting information into the database.

Access to the e-permitting portal will be available from the district's homepage at [www.mysuwanneeriver.com](http://www.mysuwanneeriver.com) beginning June 1. The system will allow applicants to submit applications, application correspondence and permit compliance information.

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**Florida Specifier**

# Manatee County considers deep wells for disposal of Piney Point gypsum stack wastewater

By **BLANCHE HARDY, PG**

**M**anatee County Commissioners held a work session in May to discuss permit applications submitted by the county to construct Class V and Class I injection well systems.

The proposed wells are intended to receive up to half a billion gallons of phosphogypsum-contaminated wastewater currently contained in the gypsum stacks at the former Piney Point phosphate mine.

The proposed deep wells are also intended to address wet weather excess treated wastewater reuse and brine from a proposed reverse osmosis water treatment plant.

Manatee County plans to build a \$33-million reverse osmosis groundwater processing plant by 2022. The county began discussions with the Florida Department of Environmental Protection in 2012 to explore disposal options for the waste brine that will be generated by the RO plant.

Subsurface disposal via deep well was identified as the most favorable solution.

Injection wells are expensive. And because construction of the well systems was deemed the best option and the wells could also be used to address existing wastewater issues, a “sooner—rather than “later”—action plan was undertaken.

The concept was presented to the Board of County Commissioners in March last year and the permits were applied for in November. An associated public meeting was held in April, 2014, to discuss the proposed injection well systems and to receive public comments.

A large number of citizens and representatives from surrounding agricultural operations attended the commission’s follow-up workshop in May to express concern about the potential impact to groundwater supplies from the 3,500-foot-deep, \$6 million Class I well intended to receive contaminated mine wastewater.

Significantly less concern was expressed regarding the Class V system intended to receive 15 million gallons per day of treated reclaimed wastewater including comparable wastewater currently stored in gypsum stack containment. In

order to have more time to make the most informed decision, the commission suspended action on the well permits.

Amy Pilson, public affairs liaison for the county’s utilities department, said the citizen’s comments are valid, while noting the need to provide better education on the system’s technical details, such as an understanding of the geology, and to provide assurance to both the public and commission members that the injection well systems are safe.

The safety and appropriateness of the proposed wells were emphasized during the work session by Chris Klena, deputy director of the Division of Water Resource Management at DEP, who assured the commission and public that the system is completely safe.

“The risk of not doing anything is

greater than the risk perceived with the deep well,” Klena said.

The gypsum stack containment is degrading and failed in 2011, releasing millions of gallons of untreated wastewater into surrounding Tampa Bay water bodies.

The county’s consultant, CH2MHill, also provided details of the proposed well construction and the underlying geology that would prevent contaminated water from rising from its 3,500 depth to the upper potable water aquifer and its irrigation-quality groundwater.

Deep well injection is common in Florida, which has 242 wells—half of the deep wells in the country.

Members of the commission expressed a desire for assurance that the wells won’t represent an environmental or financial li-

ability to Manatee County in the future and requested alternative options.

As an immediate suggestion, staff explained the proposed RO system might be a solution, but the cost of the plant would increase beyond the currently anticipated \$22 million, perhaps significantly.

Prior to the May work session, the criteria for issuing the well permits had been addressed.

Pilson said that the commission’s decision to delay the permit decision until county staff can meet with citizens, the agricultural industry and the commission to address concerns reflects well on their commitment to finding a suitable solution.

County staff members are in the process of answering the commission members’ questions.

Once the commission has had the opportunity to review their input, another work session will be scheduled.



## 2014 Environmental Lab Directory

**List your lab in our annual Florida Specifier Environmental Laboratory Directory and on-line at Enviro-net.com**

Each August, we turn our attention to the environmental laboratory business in Florida. As part of this special annual issue of the *Florida Specifier*, we include a directory of environmental labs providing analytical services in the state.

You’re invited to complete the form below, providing details about your lab and its analytical capabilities. **There is a fee of \$200 to list your lab this year.** (*Fee waived for Specifier advertisers, FRC and FRC-South exhibitors.*) In addition to your listing in the directory, **your lab will also be included in a special lab section of our Enviro-Net Web site.**

Please type or LEGIBLY print the information requested and return as soon as possible to Mike Eastman via fax at (407) 671-7757, e-mail [mreast@enviro-net.com](mailto:mreast@enviro-net.com) or mail to P.O. Box 2175, Goldenrod, FL 32733. You can reach us at (407) 671-7777. The deadline for submissions to the August Lab Directory is **Friday, July 11, 2014.** Note: **If you were listed last year, we will be in touch. Do not complete this form.**

**Please include only lab operations, capabilities and personnel for Florida**

Laboratory name: \_\_\_\_\_

Primary Florida address: \_\_\_\_\_

City, State, Zip: \_\_\_\_\_

Phone: \_\_\_\_\_ Fax: \_\_\_\_\_

E-Mail: \_\_\_\_\_ Web: \_\_\_\_\_

Contact: \_\_\_\_\_ Title: \_\_\_\_\_

Locations in FL: \_\_\_\_\_

State of incorporation: \_\_\_\_\_ Years under same ownership: \_\_\_\_\_ years

Lab capabilities/specialties: \_\_\_\_\_

Sample types: \_\_\_\_\_

Certifications: \_\_\_\_\_

Additional services: \_\_\_\_\_

Number of years in business: \_\_\_\_\_ years

Staff: Total: \_\_\_\_\_ Engineers/scientists: \_\_\_\_\_ Technicians: \_\_\_\_\_

What single issue has most affected labs in Florida over the past year?  
 \_\_\_\_\_  
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## Avon Park drops airport as site for sprayfield

By **DAN MILLOTT**

**W**ith Avon Park Municipal Airport officials voicing objections over locating a wastewater sprayfield on airport property, city officials are again evaluating other options for effluent disposal.

Maria Sutherland, the city’s administrative services director, said the airport site is now off the table.

“The next option is to purchase land near the present wastewater treatment plant’s settlement ponds,” she said.

She said the city would need to obtain about 70 acres. Land costs near the ponds are upwards of \$45,000 an acre.

The problem is that the original settlement ponds were built over a clay layer that prevents proper drainage.

The wastewater treatment plant was originally rated by the Florida Department of Environmental Protection to treat 1.5 million gallons per day. Currently the plant processes 700,000 gallons per day and DEP has capped its flow at 800,000 gpd.

Airport officials were cold to the idea of sending excess effluent to the airport, citing how the sprayfield would attract bugs and, in turn, birds that pose risks to aircraft takeoffs and landings.

In addition, the city’s Community Re-development Agency has hopes of attracting industry to the airport property and building a wastewater sprayfield there might send the wrong message.

Other options on the table include deep well injection and reclaim water treatment upgrades. But both come with extremely high price tags.

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## ALA's state of air report points to gains made, challenges ahead

By PRAKASH GANDHI

If you want to breathe clean air, you might consider relocating to the Cape Coral-Fort Myers area in Southwest Florida.

On the flip side, you'd probably do well to avoid Los Angeles if you want to keep your lungs healthy.

The Cape Coral-Fort Myers area was singled out in a recent national report for experiencing no days with unhealthy levels of ozone in the air.

The metropolitan area was also named as one of the 25 cities with the lowest year-round particle levels, according to the American Lung Association's State of the Air 2014 report.

This year's report, like most in the past, showed that progress has been made in improving the air we breathe, but much more work needs to be done.

Nearly half of all Americans—more

than 147 million—live in counties where ozone or particle pollution levels make the air unhealthy to breathe, according to the report.

While the nation overall continued to show reductions in particle pollution, poor air quality remains a significant public health concern, according to the study.

Officials were especially concerned that levels of ozone were worse than in the previous year's report.

Ground-level ozone is a significant health risk, especially for children with asthma. It also damages crops, trees and other vegetation, and is the main ingredient in urban smog.

The study found that more than 27.8 million people in the U.S. live in 17 counties with unhealthy levels of all airborne pollutants measured in the report.

In total, 22 of the 25 most ozone-polluted cities in the 2014 report, including Los Angeles, New York City and Chicago, had more high ozone days on average when compared to the 2013 report.

Once more, Los Angeles remains the metropolitan area with the worst ozone pollution.

On the up side, the report showed that Central Florida has cut its year-round particle pollution levels compared with the 2013 report.

"The air in Central Florida is certainly cleaner than when we started the State of the Air report 15 years ago," said Janelle Middents, area director for the American Lung Association. "The continued reduction of year-round particle pollution is thanks to cleaner diesel fleets and cleaner power plants.

"However, the increase in unhealthy days of high ozone tells us we still have work to do. Reducing ozone pollution will be particularly challenging because warmer temperatures increase the risk for ozone pollution, and climate change sets the stage for higher ozone levels in the future."

Lower particle pollution levels are a direct result of the transition to cleaner diesel engines and the cleanup of coal-fired power plants.

Warm summers in 2010 and 2012 contributed to higher ozone readings and more frequent high ozone days, according to the report.

The American Lung Association is calling for several steps to be taken to improve the air.

First, it said that the U.S. Environmental Protection Agency needs to put plans in place to reduce carbon pollution. In addition, ozone and particle pollution that blow across state lines must also be controlled.

Within the next year, the Obama administration has pledged to set standards for carbon pollution from new and existing power plants.

The association also said that EPA needs to set a strong, health-based standard to limit ozone pollution. Strong standards will drive the needed cleanup of ozone across the nation.

In addition, Congress needs to adequately fund the work of the EPA and the states to monitor the levels of air pollution.

Congress also needs to ensure that protections under the Clean Air Act remain strong and enforced, said the association.

"From our first State of the Air report to this most recent one, we have seen that the Clean Air Act delivers significant health benefits," said Middents. "However, the past 15 years have also confirmed that air pollution is a more serious threat to our health than we'd previously known."

She said EPA and every state must have adequate funding to monitor and protect citizens from air pollution and the new threats caused by increasing temperatures from climate change.



### 20th Annual Conference



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### FRC: The Southeast's Premier Soil and Groundwater Cleanup Conference of the Year

The soil and groundwater cleanup industry in Florida continues to face numerous challenges—technical, regulatory, legislative, financial and marketplace—but has remained solid through the past decade. As the business continues to evolve, more emphasis has been placed on cost-effective tools and treatments, on-site performance and bottom-line results.

This fall, the Annual Florida Remediation Conference, celebrating its 20th year, will again focus on the issue of soil and groundwater contamination cleanup in Florida's unique physical and regulatory environment.

Engineers, scientists, hydrogeologists, project managers, regulators, compliance managers, consultants, equipment vendors, lab representatives and other environmental professionals will benefit from the opportunity to exchange information, discuss case studies and analyze field operations in what has become the Southeast's top annual remediation meeting.

All participants will have a chance to learn about emerging treatment technologies and support services available for effective cleanup projects, and how they're being put to the task in the field.

We are now identifying sessions topics for presentation and are asking for abstracts a variety of topics: green remediation, risk assessment/RBCA, bioremediation, natural attenuation, emerging technologies, mixed waste challenges, site assessment technologies and methods, field sampling, site stabilization, combined strategies, vapor intrusion, regulatory policy and initiatives and cleanup of sites and surface water contaminated with petroleum, PCBs, chlorinated solvents, arsenic and heavy metals, pesticides and other contaminants.

We are again looking for talks on proven technologies with real-world applicability to Florida and appreciate data-heavy presentations and "roll-up-the-sleeve" approaches.

### Submission Instructions

We have started reviewing subject matter to be included on the 2014 FRC agenda. If you are interested in being a part of this year's conference, submit an abstract of approximately 250 words by July 15, 2014. FRC presentations are limited to 25 minutes in length. Mail, fax or e-mail abstracts to:

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The *Florida Specifier*, NTCC's state-based, industry-leading trade newspaper for over three decades, regularly covers the soil and groundwater cleanup industry in Florida and the Southeast with news and information about state and federal regulatory changes, effective technology-based solutions and the players involved in this solid segment of environmental protection and resource management.

### Questions?

You can reach us by phone at (407) 671-7777 or online at mreast@enviro-net.com should you have any questions or need additional information about FRC 2014. In addition, visit our web site at www.enviro-net.com for the latest conference updates.

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Regulatory policy and initiatives • Cleanup of sites contaminated with petroleum, PCBs, chlorinated solvents, arsenic, lead and heavy metals, pesticides and other pollutants

**\*\* What worked, what didn't and why? \*\***

# New industrial wastewater treatment system comes on-line at Port of Tampa

By BRUCE CLARK, PE

Tampa-based Universal Environmental Solutions recently began operating its new industrial wastewater pretreatment system. The plant was officially unveiled in April during a ceremony at the Hendry dry docks and berths located in the Port of Tampa.

The new plant was designed to treat oily bilge water from ships in a manner that is highly protective of the environment.

Bilge water that collects in the lowest part of a ship can include seawater taken in during rough seas and typically contains residual petroleum hydrocarbons and other pollutants generated from leaks, routine repairs and other maintenance activities conducted on-board.

Pollution prevention regulations prohibit contaminated bilge water from being pumped overboard.

The treatment plant was partially financed through an economic development opportunity from the state of Florida. The operation of the facility will benefit Florida not only because it minimizes potential marine pollution, but also because it recycles residuals from the plant by way of energy input production.

The plant's primary treatment method is based on the use of dissolved air flotation, or DAF, technology—a proven technology that can be used to reduce biochemical oxygen demand, chemical oxygen demand, nitrogen, phosphorus and certain metals in a wide variety of industrial wastewater streams.

The DAF system was designed to treat influent concentrations of 2,000 milligrams per liter oil and grease, and 500 mg/l total suspended solids to less than 100 mg/l O&G and 870 mg/l TSS.

The resulting effluent meets the city of Tampa's pretreatment standard for disposal in the municipal wastewater treatment system.

The treatment plant complex includes a 10,000-square-foot operations building that houses, in containment, the treatment system and plant controls.

Oily bilge water is off-loaded from ships docked at the Hendry berth via a transfer pipeline made of a fused high density polyethylene pipe, double-walled to capture leakage. This allows any leakage to be reprocessed.

The interstitial space between the two pipeline walls is continuously and automatically monitored from the operations building to detect leakage.

## GLADES

From Page 1

actions," wrote Everglades Foundation CEO Eric Eikenberg in a statement.

The corps attributes the delay in signing off on CEPP to the wording of a resolution.

At issue is wording about water quality standards—a bone of contention between the corps and the South Florida Water Management District—and a "small deviation" between the corps' draft of CEPP and that of the SFWMD.

A media statement from the corps described CEPP as "extremely well done," however "additional time is needed to finalize the document assessment prior to releasing the report for the final 30-day state and agency review."

According to Assistant Secretary of the Army Jo-Ellen Darcy, the corps would reconsider the plan in late May and needed until June to review it.

The decision to delay angered activists because although the Civil Works Review Board said the CEPP might be ready by late June, that might be too late for the House and Senate to act on it.

It has been seven years since Congress passed a water appropriations bill and the fear is that this year's bill could be the last for another long stretch.

Even though Congress approved \$23 billion for over 900 CEPP restoration projects, CEPP has not been federally funded since 2007, putting several projects in peril.

The tank farm receives bilge water from the pipeline or tanker trucks, providing approximately 270,000 gallons of storage. The main tankage was created by refurbishing four steel tanks purchased from the city of Key Largo that were formerly part of its wastewater treatment plant.

Transfer pumps feed the DAF reactor at a maximum flow rate of approximately 175 gallons per minute. The tank farm is surrounded by a concrete spill containment wall built to the 100-year flood elevation.

Cargo tanks of petroleum service barges are cleaned with a Butterworth/Gas Freeing tank cleaning system in advance of repair and hot work/welding in the shipyard. These cleaning efforts can result in as much as 1,000,000 gallons of wastewater treated per vessel.

The 10,000-gallon capacity DAF reactor unit is constructed of 304 stainless steel mechanical peripherals and an automated control system.

As flow comes into the head of the DAF, compressed air is introduced into the lower part of the unit. The compressed air bubbles rise up through the flow and simultaneously sweep oily particles to the surface.

The heavier solids continue to bundle

together and sink to the bottom of the unit. The floating oily layer moves to the end of the unit, is skimmed off and processed to initially separate the oil from the water. As the flow comes into the treatment plant, flocculating chemicals and compressed air are introduced into the DAF piping system.

The flow moves through a circuitous pipeline to allow time for the chemicals to start the flocculating process on the solids and oily droplets in the wastewater. Two 1,000-gallon decant tanks promote separation of the float into two phases, an oily layer phase and a clarified water phase.

The oil residue is then pumped out to the tank farm and stored in tote containers where it is periodically transported to an off-site reclamation facility and refined for reuse. The clarified water is mixed in with the treated effluent from the DAF.

Settled sludge drawn from the DAF unit is pumped into a sealed, watertight roll-off box that is periodically transported for disposal of its contents to an off-site permitted solidification facility.

Treated effluent discharged from the DAF unit is pumped into a sanitary sewer gravity main that connects to the city of Tampa's main wastewater collection sys-

tem. The flow rate is monitored by an ultrasonic meter and digital recorder.

Redundant systems are used in the facility to reduce the potential for adverse environmental impacts.

These include placing the entire treatment system and all related pumps and piping inside a covered spill-containment area including spill curbing for the sludge roll-off container; high level alarms and pump shutdown in the farm tanks and DAF unit; and the use of double-walled piping with continuous interstitial leak monitoring for buried piping.

The plant's engineering design, permitting and construction plans were completed by SCS Engineers in Tampa.

The plant required four environmental permits—three from the city and one from Hillsborough County. The plant construction was handled by Seavy & Associates of Tampa and completed in six months within budget.

The Hendry facility provides a significant amount of space for future expansion of the treatment plant as other wastewater sources are anticipated.

*Bruce Clark, PE, is a project director with SCS Engineers in Tampa. He can be reached at (813) 621-0080 or bclark@scsengineers.com.*

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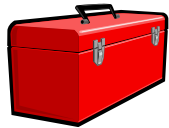
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## Sebring moves forward with cleanup of former power plant site

By DAN MILLOTT

After considering all options, the Sebring City Council approved \$159,529 to fund further cleanup work at the site of a former city-owned power plant, avoiding possible fines for failing to complete the effort.

The Park Street Power Station once provided electricity to residents when Sebring operated its own utility.

Utilities Director Bob Boggus said the plant was built in the 1920s, but was decommissioned in the 1990s when residents began receiving electricity from Progress Energy.

A series of cleanup efforts began in 1996 when it was found that the city was eligible for a state-funded cleanup program.

In 1999, Sebring began implementing the program, continuing with it until 2003. At that point, the Florida Department of Environmental Protection authorized shifting it to a natural attenuation monitoring plan.

By 2007, when it became clear that natural attenuation was not working, DEP told the city that a remedial action plan had to be implemented.

In 2008, under contract with Imperial Testing, an air sparge system was proposed and approved by DEP. The performance-based contract with a \$400,000 cap had over \$88,000 expended by June, 2009. The system was operational by April, 2010.

In an outline to city council in April, Boggus said that by November, 2010, contamination had been cut by only 50 percent, requiring shut down of the system in July, 2011, and setting off a further search for contamination sources.

Sampling from additional test wells showed heavy oil compounds both beneath the plant and downgradient as well. Contaminant levels were lower beneath the plant and higher toward nearby Franklin Street, indicating that the plume was migrating away from the plant property.

By 2012, council members began to question whether they should continue their efforts to cleanup the site, but were advised by Richard Spaulding, PE, an engineer with the Polk County Health Department, that failure to follow through with site cleanup could result in fines and eventual enforcement action.

Additional funding was then authorized for drilling more test wells inside power plant property to test the groundwater.

Imperial Testing's latest plan calls for extracting pollutants using submersible

pumps in large wells along with vacuum generating blowers.

Boggus said the contaminated water will be pumped up, filtered and then returned to the ground.

The latest proposal, a remedial action modification program that was approved by DEP last October, required that the treatment system be operational by May, 2014.

On April 1, representatives with Imperial Testing said they needed three to four weeks to get the remedial system up and running.

After the system is operational, Imperial officials estimated it would take a year and a half to cleanup the groundwater, plus another year to monitor the site to make sure the cleanup is complete.

Boggus told the council that, in all, the remediation system cost will reach over \$307,000.

The council in early April voted 4-1 to authorize the funds to make modifications to the existing remedial system.

## Group to investigate problems in IRL

By PRAKASH GANDHI

A new workgroup has been created to investigate one of Florida's most pressing ecological problems—pollution in the Indian River Lagoon.

The seven-member committee will oversee research being done by the Ocean Research & Conservation Association on the canal systems discharging into the trouble-torn lagoon that has been plagued for years with high nutrient levels.

The committee will help guide ORCA on the design of the project. It will also ensure that the research provides insight into the lagoon's health.

"In general, we will be looking at the pollutants that are harming the Indian River Lagoon," said committee member Donald Albrey Arrington, PhD, executive director of the Loxahatchee River Environmental Control District. "The objective of the committee is to discern the ultimate source of those pollutants."

Results from the project will be made available to the public once they are reviewed by the panel.

The comprehensive canal study will take an ecosystem-wide approach to un-

ORCA

Continued on Page 15



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# Financial settlement may hasten Jax Superfund site rehabilitation

By ROY LAUGHLIN

The site of a former fertilizer plant in Jacksonville's Talleyrand neighborhood has been earmarked to receive \$80 million for cleanup, just a small part of a recent record-breaking settlement between the EPA's Superfund Program and Anadarko Petroleum Corp.

For EPA's Region 4, cleanup of the site has been in a "hurry-up-and-wait" status. But that may change if the settlement agreement provides funding.

Kevin Beswick, senior counsel with EPA Region 4, said the agency is finishing up some legal procedures associated with the settlement agreement.

The first step, taken in April, was to review the EPA's possible and preferred remediation steps with its Remedy Review Board.

The board consists of EPA staff and industry experts who, during the meeting, discussed different proposals to ensure they are consistent with legislation, rules and legal agreements bearing on the property.

In May, board reviewers provided comments and provisions that will be incorporated into a proposed site remediation action plan.

The board's comments will be confidential until the proposed remediation plan is released for public comment in July.

The EPA plans to conduct a public meeting in Jacksonville to gather comment, followed by a 30-60 day public comment period.

All of this will pave the way for EPA to sign a record of decision in which it will lay out its plans for site remediation, funded by the \$80 million.

Beswick said that EPA Region 4 is currently committed to having a signed record of approval by the end of the current federal fiscal year, Sept. 30, 2014.

"The time lines are hopefully accurate," he said. "The trustee (property owner) has been working with the EPA and the (Florida Department of Environmental Protection) to get this thing cleaned up as quickly and efficiently as planned, and open for development."

Beswick noted that this site remediation "has had a number of challenges going forward." For more than 80 years, it had been one of Florida's major fertilizer processing facilities, the Wilson and Toomer Company.

It's lead and arsenic contamination go back to the days when pyrite was converted to sulfuric acid in lead reaction vessels, with the sulfuric acid used to extract phosphate from crushed calcium phosphate rock.

The site's significant arsenic and lead contamination resulted from that process, conducted there over decades.

In the mid 20th century, the company went through a series of different corporate owners until Kerr-McGee acquired it in the late 1960s/early 1970s.

Kerr-McGee bought the facility as part of a larger acquisition of a potash company whose uranium by-product was Kerr-McGee's primary interest.

Kerr-McGee continued fertilizer pro-

duction, and agricultural pesticide formulation and storage at the site until 1978.

In late 2006, Anadarko Petroleum Corp. purchased Kerr-McGee, but not before the latter spun off Tronox, a company that came to own many contaminated sites around the country from Kerr-McGee's prior 75 years of operations.

In 1984 and thereafter, the state of Florida and the EPA characterized soil, sediment in the St. Johns River and Deer Creek, and groundwater contamination. The site has been fenced off to ensure restricted access for the past 30 years.

Shortly after Tronox was spun off from Kerr-McGee, it went into bankruptcy, citing the cleanup costs of its inherited properties in need of remediation. That set up legal proceedings that brought Anadarko, which purchased Kerr-McGee, into the picture.

Earlier this year, as part of a litigation agreement with EPA, Anadarko put \$5.15 billion into a litigation trust, including the \$80 million for the Jacksonville site, formally designated as the Kerr-McGee Chemical Corp.-Jacksonville site.

Last December, the Florida Department of Health released a public health assessment of the Kerr-McGee site. Based on standard risk assessment metrics, the assessment concluded that contamination on the site did not pose a human health risk to people on neighboring properties, most of which are low intensity industrial properties.

For workers on the site, breathing contaminated dust poses a small exposure risk for arsenic and some of the organic chemicals.

In particular, the report advised that people mowing the site should wear breathing filters for protection from contaminants in dust.

For organic chemicals that are easily absorbed through the skin, such as dieldrin and dioxin, workers in contact with contaminated soil may be at risk of cancer beyond the criterion of one additional cancer case per million, according to the assessment.

This was characterized as a small risk, made uncertain by the lack of reliable air samples to determine the inhalation risk of contaminated dust. Only parts of the 30-acre site are heavily contaminated with these organic compounds.

Those areas are around buildings where the chemicals were formulated, stored or burned in a burn pit.

The site's groundwater is contaminated with arsenic and perhaps other pollutants.

Sediments on a few acres of St. Johns River bottom adjacent to the site and in


Deer Creek along one side of the site are also contaminated and will be addressed as part of the site remediation.

Because the area is served by a public drinking water system, risk of human health effects from drinking groundwater from wells is considered nonexistent at this point. Groundwater, though, will be one focus of the remediation plan.

Beswick said he expected that once the site remediation plan is established, cleanup activities would take years, not decades, the time scale for progress up to this point.

"We're reasonably confident that the \$80 million should cover the remedies being looked at, at this point," he said. "Ultimately, the plan is for the site to be cleaned up, the trust (which, as a result of the Tronox bankruptcy, owns the property during cleanup) will be terminated with the sale of property, which will return to beneficial use."

The site, in an industrial district near the Port of Jacksonville, has considerable future potential. That future seems a lot closer now than at any time over the past three decades.



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Staff report

Tampa Bay Water's 2013 Fiscal Year Budget has been awarded with a Distinguished Budget Presentation Award from the Government Finance Officers Association of the U.S. and Canada, marking the fifth consecutive year that the agency has been bestowed the honor.

The Distinguished Budget Presentation is awarded to local or state government agencies that meet stringent criteria for budget and reporting.

TBW was acknowledged for satisfying nationally recognized guidelines and for how well its budget served as a policy document, financial plan, communications device and an operations guide.



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## An update on the Florida Department of Environmental Protection's Petroleum Restoration Program

By JORGE CASPARY, PG

On May 2, 2014, the Florida Legislature unanimously approved a major overhaul of the state's Petroleum Restoration Program.

The PRP is entrusted with the assessment and cleanup of thousands of facilities affected by petroleum-product discharges. The cleanup of these facilities is funded by taxpayers and administered by the Florida Department of Environmental Protection.

By all accounts, it is one of the largest environmental cleanup programs in the country, with more than 17,000 facilities qualified for taxpayer-funded cleanup. Since 1988, more than 7,200 facilities have been cleaned up, approximately 3,200 are now undergoing assessment or remediation, and approximately 6,900 facilities await assessment.

On March 8, 2013, the DEP's Office of Inspector General determined the PRP to be inefficient, ineffective and operating outside of normal state of Florida procurement procedures. Thereafter, the department immediately began a process designed to bring the PRP into compliance with state procurement law.

This process effectively ended the controversial consultant/site owner relationship and site cleanups based on "template" rates that were in place since 1996. The immediate result of the competitive procurement of contractors is an average unit rate decrease of 20 percent when compared to the previous templated rates.

A conservative fiscal estimate indicates that the shift to a competitive procurement process will save Florida taxpayers \$500 million over the lifetime of the program.

In addition, the program has for the first time developed a five-year strategic plan to guide its operations. The plan calls for a two-pronged strategy designed to first provide the taxpayer certainty that every facility with a discharge presenting a high potential risk to human health or the environment has been remediated. Secondly, the strategy will begin to evaluate thousands of facilities languishing for decades with little or no assessment.

This strategy will result in lower risk facilities achieving closure years earlier than originally predicted, while those facilities with the highest environmental risk will receive priority attention.

Another noteworthy change is that the PRP will no longer own or operate remedial equipment. As of May 2014, the department owns approximately 300 idle remedial systems. The purchase, ownership and maintenance costs of these systems over the last 10 years has been staggering, and has taken precious resources away from the cleanup of contamination.

Following the example of other state and federal agencies, the department plans to end its long-standing practice of remedial equipment ownership by the time you read this article.

Additionally, the program is focused on building a robust analytical system upon which to base future cleanup decisions. The system will be used to measure the performance of remedial systems and help to decide when to switch to monitored natural attenuation or consider another supplemental remedial technology that may accelerate site closure. This important step will move the PRP closer to its peers across the nation.

Staff in Tallahassee and local programs have embraced the changes and are fully engaged in preparing hundreds of scopes of work for routine remedial services such as site assessment, remedial action plans, operation and maintenance, post active remedial monitoring, long-term monitoring and well abandonment, which constitute the majority of the program's yearly budget expenditures.

Once accepted by a program contractor, these scopes of work will be converted into purchase orders within 15 days of assignment. The department has also realigned its former Procurement Bureau to support the PRP.

Finally, the new legislation—when it becomes law—

provides for additional program efficiencies by modifying the former Preapproved Advanced Cleanup program, renamed the Advanced Cleanup Program. Under the ACP, an owner or responsible party may submit an application to clean 20 or more facilities by paying a minimum of 25 percent of the cost of cleanup, demonstrating a 25 percent cost savings, or a combination of both.

The remediation services may be under a performance-based contract where the consultant is paid based on cleanup milestones achieved rather than services rendered.

As we look back to the numerous changes effected during the past year, we firmly believe that the Florida PRP has become a more effective and efficient program without lowering any standards of environmental protec-

tion.

We want to emphasize that the facilities that pose the greatest potential risk to human health and the environment will be cleaned up first.

At the same time, we also believe that there are hundreds of low potential risk facilities that could be quickly, efficiently closed and returned to productive use, thus contributing to the economic growth of our state.

As the program undergoes further refinements, we remain committed to the multi-party communication that has gotten us this far.

*Jorge R. Caspary, PG, is the director of the Division of Waste Management at the Florida Department of Environmental Protection in Tallahassee.*

## State air permitting: The process of obtaining air construction permits

By JEFF KOERNER, PE

Part three in a series

The previous two columns in April and May identified rules that exempt certain activities from air permitting and detailed a simplified registration process for 17 specific air general permit categories that are available for eligible small businesses.

This column describes the process of obtaining air construction permits from the state.

Many new commercial and industrial businesses include operations that are subject to specific air quality regulations. State-specific emission standards are identified in Chapter 62-296 of the Florida Administrative Code.

Florida regulates hazardous air pollutants in accordance with the National Emissions Standards for Hazardous Air Pollutants in Title 40 of the Code of Federal Regulations. Part 61 is regulation by HAP and Part 63 is regulation by industrial category.

There are also federal New Source Performance Standards specified for criteria air pollutants in Title 40, Part 60 of the CFR.

Permits are required for operations subject to applicable regulations or that emit air pollutants in sufficient quantities to warrant regulation.

For example, equipment that combusts fuel, such as boilers, furnaces and stationary engines, is common to many businesses and such equipment may be subject to a range of state and federal regulations.

Businesses that utilize regulated equipment are required to obtain permits prior to beginning construction on new emissions units, modifying an existing emissions unit or installing air pollution control equipment.

These permits will specify applicable emissions standards and work practices to control the emissions of pollutants such as: 1) particulate matter from combustion exhaust or dust from material handling, sizing and screening; 2) carbon monoxide, nitrogen oxides and sulfur oxides from equipment that burns oil, natural gas, wood or other fuels; 3) volatile organic compounds, which includes a variety of chemical compounds commonly found in paints, thinners, cleaning agents, adhesives and other solvent-containing materials; 4) and hazardous air pollutants like styrene, which is released during fiberglass product manufacturing.

Businesses are encouraged to conduct a thorough site/plan survey to identify all activities that generate or control air emissions.

If the air-emitting activities at a proposed business are not exempt from permitting or the facility is not eligible for an air general permit, then the owner or operator must obtain an air construction permit before construction can begin. Air permitting requirements are specified in Chapters 62-4, 62-204, 62-210 and 62-212 of the Florida Administrative Code.

### Applications

The process for obtaining an air construction permit begins with submitting the appropriate application form (<http://www.dep.state.fl.us/air/rules/forms/application.htm>) or electronic form (<http://www.dep.state.fl.us/air/emission/epsap/default.htm>), and fee (Rule 62-4.050, FAC, <http://www.dep.state.fl.us/air/rules/current.htm>).

The Florida Department of Environmental Protection's Division of Air Resource Management processes applications for all major source permits subject to the Prevention of Significant Deterioration of air quality, as well

as all minor air construction permits for utility power plants, facilities subject to the acid rain program, waste-to-energy facilities, landfills and other select special projects.

DEP's district offices process all minor air construction permits within the district except for those within a county for which an approved local air program has jurisdiction.

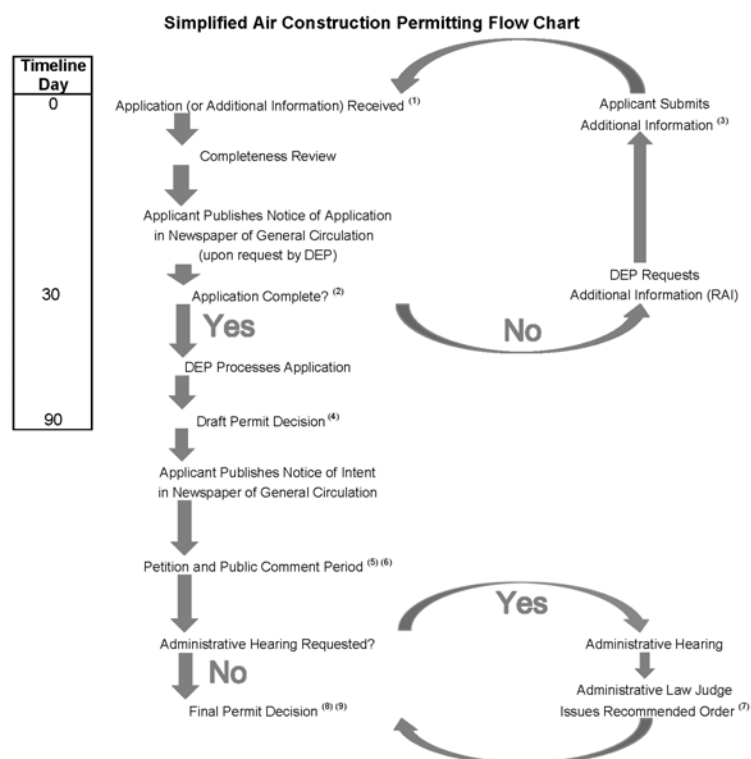
The division or district offices also process the applications for pulp and paper mills, chemical manufacturing plants, sugar mills, county-owned or operated facilities and construction permits subject to processing under state "expedited permitting" statutes.

Applicants must identify general facility information, contact information, process equipment, air pollution control equipment, fuels, materials processed, operational restrictions, applicable state and federal regulations, emissions standards and methods of compliance.

Applications for air construction permits must be sealed by a professional engineer registered in Florida.

### Administrative process

The permitting flowchart below provides a simplified view of the permitting and administrative process from the receipt of an application through issuance of a final air construction permit.



The processing fee must be received by permitting authority in order for the application to be considered "received." There are no applicable fees for an existing facility holding a Title V air operation permit.

Within 30 days of receipt of the initial application or receipt of the last item of information submitted to complete the application, the permitting authority must determine whether the application is complete.

If the application is deemed incomplete, the applicant has 90 days to submit the requested additional information or may request additional time to provide the information.

The permitting authority must make a written permitting decision (issue or deny) within 90 days from receiving a complete application or from receipt of the last item

**PERMIT**  
Continued on Page 15

## Florida Specifier

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

# Calendar

## June

JUNE 8-11 – Symposium: Spring Symposium of the Southeast Desalination Association, Captiva Island, FL. Call (772) 781-7698 or visit [www.desalination.biz](http://www.desalination.biz).

JUNE 9 – Course: Water Distribution System Pipes and Valves, Gainesville, FL. Presented by the University of Florida TREEO Center. Call (352) 392-9570 or visit [www.treeo.ufl.edu](http://www.treeo.ufl.edu).

JUNE 9-11 – Course: Asbestos: Inspector, Gainesville, FL. Presented by the University of Florida TREEO Center. Call (352) 392-9570 or visit [www.treeo.ufl.edu](http://www.treeo.ufl.edu).

JUNE 10 – Course: The Science of Disinfection, Tampa, FL. Presented by the University of Florida TREEO Center. Call (352) 392-9570 or visit [www.treeo.ufl.edu](http://www.treeo.ufl.edu).

JUNE 10-11 – Course: Pumping Systems Operation and Maintenance, Gainesville, FL. Presented by the University of Florida TREEO Center. Call (352) 392-9570 or visit [www.treeo.ufl.edu](http://www.treeo.ufl.edu).

JUNE 11-13 – Conference: Florida Stormwater Association Annual Conference, Fort Myers, FL. Call 1-888-221-3124 or visit [www.florida-stormwater.org/conference](http://www.florida-stormwater.org/conference).

JUNE 11-13 – Conference: Annual Conference of the Florida Association for Water Quality Control, Naples, FL. Call (813) 623-6646 or visit [www.fawqc.com](http://www.fawqc.com).

JUNE 12 – Course: Lift Station Maintenance, Gainesville, FL. Presented by the University of Florida TREEO Center. Call (352) 392-9570 or visit [www.treeo.ufl.edu](http://www.treeo.ufl.edu).

JUNE 12-13 – Course: Asbestos: Management Planner, Gainesville, FL. Presented by the University of Florida TREEO Center. Call (352) 392-9570 or visit [www.treeo.ufl.edu](http://www.treeo.ufl.edu).

JUNE 13 – 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](http://www.treeo.ufl.edu).

JUNE 13 – Course: Unidirectional Flushing Workshop, Gainesville, FL. Presented by the University of Florida TREEO Center. Call (352) 392-9570 or visit [www.treeo.ufl.edu](http://www.treeo.ufl.edu).

JUNE 14 – 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](http://www.treeo.ufl.edu).

JUNE 14 – 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](http://www.treeo.ufl.edu).

JUNE 16 – Course: Introduction to Backflow Prevention, Gainesville, FL. Presented by the University of Florida TREEO Center. Call (352) 392-9570 or visit [www.treeo.ufl.edu](http://www.treeo.ufl.edu).

JUNE 16-19 – Symposium: Florida Lake Management Society 25<sup>th</sup> Annual Technical Symposium, Stuart, FL. Call (352) 434-5025 or visit [www.flms.net](http://www.flms.net).

JUNE 17-19 – Course: Microbiology of Activated Sludge, Gainesville, FL. Presented by the University of Florida TREEO Center. Call (352) 392-9570 or visit [www.treeo.ufl.edu](http://www.treeo.ufl.edu).

JUNE 17-19 – Course: Asbestos: Project Design, Gainesville, FL. Presented by the University of Florida TREEO Center. Call (352) 392-9570 or visit [www.treeo.ufl.edu](http://www.treeo.ufl.edu).

JUNE 17-18 – Course: Cross-Connection Control: Survey and Inspection, Gainesville, FL. Presented by the University of Florida TREEO Center. Call (352) 392-9570 or visit [www.treeo.ufl.edu](http://www.treeo.ufl.edu).

JUNE 18 – Course: Hydrology, Drilling and Surface Geology, Orlando, FL. Presented by the Florida Section of the American Water Works Association. Call (407) 957-8448 or visit [www.fsawwa.org](http://www.fsawwa.org).

JUNE 19-20 – Course: Cross-Connection Control: Ordinance and Organization, Gainesville, FL. Presented by the University of Florida TREEO Center. Call (352) 392-9570 or visit [www.treeo.ufl.edu](http://www.treeo.ufl.edu).

JUNE 20 – Course: Health and Safety for Solid Waste Workers- Part 3 (am+pm), Gainesville, FL. Presented by the University of Florida TREEO Center. Call (352) 392-9570 or visit [www.treeo.ufl.edu](http://www.treeo.ufl.edu).

JUNE 20-28 – Course: Backflow Prevention Assembly Tester and Certification, Fort Myers, FL. Presented by the University of Florida TREEO Center. Call (352) 392-9570 or visit [www.treeo.ufl.edu](http://www.treeo.ufl.edu).

JUNE 21-22 – Course: Initial Training Course for Transfer Station Operators and Materials Recovery Facilities- 16 Hour, Gainesville, FL. Presented by the University of Florida TREEO Center. Call (352) 392-9570 or visit [www.treeo.ufl.edu](http://www.treeo.ufl.edu).

JUNE 21 – Course: Initial Training Course for Spot-

ters and Landfills, C&D Sites and Transfer Stations- 8-Hour, Gainesville, FL. Presented by the University of Florida TREEO Center. Call (352) 392-9570 or visit [www.treeo.ufl.edu](http://www.treeo.ufl.edu).

JUNE 21 – 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](http://www.treeo.ufl.edu).

JUNE 21 – 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 or visit [www.treeo.ufl.edu](http://www.treeo.ufl.edu).

JUNE 24-27 – Conference: Air & Waste Management Association 107th Annual Conference & Exhibition, Long Beach CA. Call (412) 904-6031 or visit [www.awma.org](http://www.awma.org).

JUNE 26 – Course: The Science of Disinfection, Tallahassee, FL. Presented by the University of Florida TREEO Center. Call (352) 392-9570 or visit [www.treeo.ufl.edu](http://www.treeo.ufl.edu).

JUNE 28 – Course: Backflow Prevention Recertification Review, Tampa, FL. Presented by the University of Florida TREEO Center. Call (352) 392-9570 or visit [www.treeo.ufl.edu](http://www.treeo.ufl.edu).

JUNE 29 – Course: Backflow Prevention Recertification Exam, Tampa, FL. Presented by the University of Florida TREEO Center. Call (352) 392-9570 or visit [www.treeo.ufl.edu](http://www.treeo.ufl.edu).

## July

JULY 7-11 – Course: Backflow Prevention Assembly Tester Training and Certification, Altamonte Springs, FL. Presented by the University of Florida TREEO Center. Call (352) 392-9570 or visit [www.treeo.ufl.edu](http://www.treeo.ufl.edu).

JULY 8-11 – Course: Wastewater Class C Certification Review, Gainesville, FL. Presented by the University of Florida TREEO Center. Call (352) 392-9570 or visit [www.treeo.ufl.edu](http://www.treeo.ufl.edu).

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

JULY 10 – Course: Backflow Prevention Recertification Exam, Fort Myers, FL. Presented by the University of Florida TREEO Center. Call (352) 392-9570 or visit [www.treeo.ufl.edu](http://www.treeo.ufl.edu).

JULY 11-12 – Course: Backflow Prevention Assembly Repair and Maintenance Training and Certification, Venice, FL. Presented by the University of Florida TREEO Center. Call (352) 392-9570 or visit [www.treeo.ufl.edu](http://www.treeo.ufl.edu).

JULY 12 – Course: Backflow Prevention Recertification Review, Jacksonville, FL. Presented by the University of Florida TREEO Center. Call (352) 392-9570 or visit [www.treeo.ufl.edu](http://www.treeo.ufl.edu).

JULY 13 – Course: Backflow Prevention Recertification Exam, Jacksonville, FL. Presented by the University of Florida TREEO Center. Call (352) 392-9570 or visit [www.treeo.ufl.edu](http://www.treeo.ufl.edu).

JULY 14-18 – Course: Backflow Prevention Assem-

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

JULY 18 – Course: Backflow Prevention Recertification Review, West Palm Beach, FL. Presented by the University of Florida TREEO Center. Call (352) 392-9570 or visit [www.treeo.ufl.edu](http://www.treeo.ufl.edu).

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

JULY 18-19 – Conference: Annual Conference of the 2013 Florida Section of the American Society of Civil Engineers, Miami Beach. Visit [www.fla-asce.org](http://www.fla-asce.org).

JULY 19-27 – Course: Backflow Prevention Assembly Tester Training and Certification, Tampa, FL. Presented by the University of Florida TREEO Center. Call (352) 392-9570 or visit [www.treeo.ufl.edu](http://www.treeo.ufl.edu).

JULY 19 – 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](http://www.treeo.ufl.edu).

392-9570 or visit [www.treeo.ufl.edu](http://www.treeo.ufl.edu).

JULY 21-22 – Course: Phase I Environmental Site Assessment and All Appropriate Inquiry Training Course and LEP Exam, Marco Island. Presented by INSTEP. Contact Gene Jones at (850) 558-0617 or visit <http://instep.ws>.

JULY 21-23 – Course: Backflow Prevention Assembly Repair and Maintenance Training and Certification, Gainesville, FL. Presented by the University of Florida TREEO Center. Call (352) 392-9570.

JULY 22 – Course: Refresher Training Course for Experienced Solid Waste Operators- 8 Hours, Tampa, FL. Presented by the University of Florida TREEO Center. Call (352) 392-9570.

JULY 22 – Course: Refresher Training Course for Experienced Solid Waste Operators- 4 Hours, Tampa, FL. Presented by the University of Florida TREEO Center. Call (352) 392-9570.

JULY 22 – Course: Initial Training Course for Spotters at Landfills, C&D Sites and Transfer Stations- 8 Hour, Tampa, FL. Presented by the University of Florida TREEO Center. Call (352) 392-9570.

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# The Politics of Trash: A perspective on the value of recoverable and reusable materials

By JERRY WOOD, PE

The movie, The Book of Eli, is a post-apocalyptic drama. Denzel Washington's character explains how things were before "the flash:" "We threw things away that people kill each other for now."

In our pre-apocalyptic world and economy of abundance, we part with many functional things because we want another model or color. We also pay to discard many valuable resources—resources like

dirt, for example.

It takes 100 years to make one-inch of topsoil. Costs for replacement soil materials have increased 400 percent or more in 20 years. In many cases, the costs have gone from "free fill" to \$25 per cubic yard.

But it's not just about the dirt; the loss of topsoil is a symptom. A lack of vision and diligence is the problem. It's about a lack of foresight, combined with aggressive corporate influences negatively im-

acting many reusable materials markets.

"Recoverable materials" as defined by Chapter 403, Florida Statutes, include only metal, paper, glass, plastic, textile and rubber materials. This definition has not changed in over 20 years.

The definition is important because it excludes other valuable materials such as concrete, wood, soil materials, asphalt and others that would benefit from the companion provisions of laws promoting recycling and reuse efforts.

The statute provides for the exclusion of "recovered materials" from the definition of solid waste. The omission of these other valuable materials from the recovered definition allows for manipulation by clever local governments and their franchisees.

This is not an oversight. It is done—or not done—on purpose, allowing local government to control the flow of unprotected recoverable materials by classifying them as solid waste. This is often accomplished through franchises that restrict the collection of solid waste and thereby control the valuable recoverable materials market.

Franchises promoting higher fee structures by restricting competition, combined with "un-bid" agreements, are hallmarks of the current solid waste business.

Well-funded lobbyists and compliant

legislators fight to prevent robust materials recovery and the reuse of those resources—all to protect the niches and vested interests of various industries. It is our system. The result is negotiated mediocrity and anemic performance.

Ultimately, it's not about environmental protection or recycling; it's about the money. The limestone industry fought against the reuse of concrete. The asphalt industry fought against the reuse of asphalt. And superficially justified rules prevent the reuse of huge quantities of wood and soil.

The large waste disposal companies fight to control the advancement of recycling. And why not? Who benefits from driving useful materials like dirt and mulch to a landfill?

An even larger volume issue is recovered soil material, or RSM, from construction and disaster debris. Literally millions of cubic yards of usable soils and RSM have been wasted or diverted to landfills due to lackluster regulatory efforts.

Attempts to reuse organic materials, especially wood debris, have met a similar fate.

The solid waste rules for classification of common contaminants of concern, like arsenic found naturally in soils and mulches in relatively small quantities, have

## Guest Column

WOOD  
Continued on Page 16

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## Sticker shock stalls reservoir project in Palm Beach County

By SUSAN TELFORD

Costs continue to rise on a reservoir that hasn't been dug yet, stalling the idea of turning rock mines into a 24-billion-gallon reservoir in Royal Palm Beach.

Palm Beach County Commissioners agreed to spend another \$30,000 toward the total cost of \$150,000 to hire consultants for a cost analysis study to justify the new reservoir.

The study for the water-sharing project for Palm Beach and Broward counties is moving forward with a projected the final price tag of as high as \$1 billion.

The new reservoir would be built next to existing rock mines owned by Palm Beach Aggregates. That project has already cost South Florida taxpayers a whopping \$217 million but has yet to pump the first gallon south.

According to the Palm Beach County Water Utilities Department, the county already paid about \$79,000 toward a previous \$500,000 study during the initial proposal. And in 2012, the updated version of the project estimated costs at more than double the initial cost—for a total price tag of close to \$1 billion.

The existing reservoir, built by Palm Beach Aggregates, is still not complete and operational. The water-collecting portion

was completed in 2008, however construction on the \$64 million pumps to get the water flowing will not be completed until 2016, making the pitch to start an additional reservoir extremely tricky.

"It's a waste of money," said Drew Martin, Everglades Chair of the Sierra Club, in a statement. "I don't know why they want to keep studying it."

The newly proposed reservoir will capture a portion of the stormwater that currently flows to the ocean via the C-51 Canal. The plans call for existing canals operated by the South Florida Water Management District and the Lake Worth Drainage District to send the water south.

The district recently resumed work on an Everglades restoration reservoir that has cost taxpayers nearly \$280 million. The 167,000-acre reservoir will cost the district another \$60 million to complete.

Rather than build more reservoirs, activists argue that water conservation would be more effective and much less expensive than building another reservoir.

Opponents of the project point to water quality issues that have plagued the existing reservoir, and call any further feasibility studies regarding this project a waste of taxpayer money.

Palm Beach County officials agreed to move forward with the cost study, but have not committed to any further development.

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# EPA weighs in on proposed FPL natural gas pipeline during FERC review

By **BLANCHE HARDY, PG**

The U.S. Environmental Protection Agency issued comments to be included in the public record on the Sabal Trail underground pipeline in April as part of the Federal Energy Regulatory Commission's pre-filing environmental review scoping process.

A pre-filing environmental review may be undertaken to better define issues that need to be addressed during execution of the required environmental impact study.

Sabal Trail Transmission LLC, the pipeline applicant, is a joint-venture between Spectra Energy Corp. and NextEra Energy Inc., owners of Florida Power & Light.

In October, 2013, the Florida Public Service Commission granted a prudence determination agreeing that there is need and justification for cost recovery for the construction of the pipeline by applicant Sabal Trail Transmission.

The PSC subsequently rejected a request by environmental and safety activists to reverse their decision and directed them to express their concerns as part of the FERC review process.

The \$3.5 billion natural gas transmission pipeline project includes approximately 470 miles of interstate natural gas pipeline, 214 miles of which will be located in Florida, consisting of two pipelines with connecting spurs and two compressor stations.

A large number of public comments on the pipeline suggest conservation and the use of alternative energy sources as more appropriate than installing a pipeline and increasing the use of fossil fuel.

EPA's comments reflect this concern by requesting data to support the applicant's claim that Florida's two existing natural gas pipelines are nearing capacity.

EPA referenced FPL reports identify-

ing significant energy savings through implementation of federal energy-efficiency and conservation policies, and the potential to save even more through implementation of a federal efficiency policy anticipated to be enacted this year.

FPL ranks second overall in energy-efficiency and conservation success. It has been suggested that the utility could expand home weatherization for low-income customers, a provision in the company's goals for energy conservation, to further increase efficiency.

The agency also issued comments asking for assurance that the additional natural gas is actually needed and for evaluation of alternative sources, such as importing liquefied natural gas from existing Gulf Coast suppliers, as a reasonable substitution for the pipeline.

"EPA said electricity sales peaked in 2007 and have been going down since then, according to the American Council for Energy Efficiency's evaluation of data from the U.S. Energy Information Association," said John Quarterman, a board member of SpectraBusters, an environmental and alternative energy advocacy group opposing the Sabal pipeline. "Florida is the 'sunshine state' with the least excuse to use more natural gas."

EPA also expressed concern regarding Sabal Trail's proposal to install a new 36-inch underground pipeline close to or within the same right-of-way as the existing 10-inch natural gas pipeline built in the 1950s, noting that such a plan might compromise public safety, particularly in dense population centers.

"Should these dense population centers have more than one natural-gas line in their neighborhoods, safety concerns are heightened," stated an EPA letter.

In order to identify areas of concern prior to the EIS, Sabal Trail asked FERC to participate in a pre-filing environmen-

tal review last October. The associated public hearings began in March and ended in late April 2014.

"We agreed to participate in that pre-filing process with them," said John Peconom, FERC's environmental project manager. "The purpose of the pre-filing process is to engage stakeholders, landowners, affected parties—anybody who's interested early in the project's developmental process. This is a long process. I

don't expect to finish the EIS for at least a year and a half, and maybe longer."

EPA's comments also include assessment of potential threats to water, land, air and wildlife, indicating the EIS should identify, for example, environmentally sensitive waterways, wetlands of particular sensitivity and similar natural resources.

Although the pre-filing comment period has closed, interested parties may pursue commenting on the upcoming EIS.

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## Company fined for fracking in Collier

By **SUSAN TELFORD**

The Florida Department of Environmental Protection fined the Texas-based Dan A. Hughes Co. \$25,000 for using a drilling technique consistent with fracking in central Collier County.

According to a consent order filed by the DEP, the company proposed an enhanced extraction procedure that had not been used in Florida, and was consistent with hydraulic fracturing, or fracking.

Fracking is performed by injecting a combination of water and chemicals into a geologic formation at high pressure to fracture the rock. After the rock is broken, the fluid expands the fracture and a propping agent is pumped into the formation to keep the fracture open so that drillers can extract the natural resource.

In a statement, the Hughes Co. denied fracking, describing the technique they were using as an "acid stimulation technique."

### REPORT From Page 1

Other species, such as oysters, have shown poor recruitment in the years following the spill, another indication of long-term habitat effects from the spill.

The foraminiferans discussed are deep sea species that are the basis of deep sea food chains. Infaunal and epifaunal foraminiferan species in and on the surface of heavily oiled sediments off Florida's Big Bend region initially experienced a loss of both species.

Only the epifaunal species have returned, presumably because oil in sediments is preventing recovery of infaunal species.

Red snapper, a previously abundant fish and the basis of one of the Gulf's formerly most productive fisheries, seems to have been hit hard after the spill and has not recovered adequately since.

Recruitment is said to be lower since the spill, reflecting low spawning success or poor larval survival. Growth rates of

They maintain that "at no time was the groundwater in any danger of coming into contact with fluids flowing through the well pipe" during the two-day operation.

The drilling procedure's details are not public information because the Hughes Co. labels the technique as a trade secret. Under Florida law, agencies are exempted from public record statutes if a company's trade secret would be revealed.

According to the consent order, the Hughes Co. is required to hire a third party to conduct groundwater testing by June, and that party is required to provide a report on groundwater quality standards by Dec. 1.

Residents living close to the site have been opposed to the drilling since its inception and have been organizing protests.

"They've done experiments with our water supply, and we're left to deal with

### FRACKING Continued on Page 16

post larval fish is lower since 2010. After the spill, Gulf red snapper had weathered oil in their tissues.

"Four years later, wildlife in the Gulf is still feeling the impacts of the spill," said Dr. Doug Inkley, senior scientist for the National Wildlife Federation.

NWF reiterated their recommendations of the past that federal, state and local officials must commit fines and penalties from the Clean Water Act to the Gulf's ecological restoration and that U.S. Department of Justice officials should ensure that responsible parties are held accountable for damages resulting from gross negligence and willful misconduct that led to the well blowout.

In addition, they call for a reopener clause in final settlement claims to address unknown damages that may come to light in the future.

And finally, the federation calls for reform of oil and gas leasing practices and permitting requirements to ensure safer offshore drilling in the future.

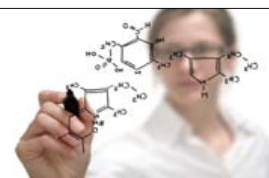
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# Contaminated site of former St. Marks Refinery in Wakulla County headed for redevelopment

By PRAKASH GANDHI

Officials in North Florida are cleaning up and redeveloping a former refinery site that they believe will serve as a catalyst for creating economic opportunities in the area.

Environmental officials hope that the contaminated property in the Wakulla County city of St. Marks, south of Tallahassee, will become a business park.

St. Marks officials said that about 20 acres are available for use and that redeveloping the site would create new jobs

for residents and rid the area of a longtime environmental eyesore.

"Redeveloping the site could create a lot of business opportunities, which will help the tax base of St. Marks, the city of Tallahassee and Leon County," said John Powell, environmental regulatory compliance administrator with the nearby city of Tallahassee.

When the refinery was operating, crude oil was transported up the St. Marks River by barge to be processed into various end

products, among them jet fuel and asphalt.

In 2009, St. Marks received a brownfields assessment grant from the U.S. Environmental Protection Agency to determine the extent of contamination. This led to an EPA cleanup grant last year.

The revolving loan funds enabled St. Marks to make major strides in finishing the cleanup and readying the site for redevelopment. Powell said the redevelopment of the site is vital due to its location within the watershed.

"This site is located in an ecologically sensitive area bordering the St. Marks River, which has been designated by the state as an Outstanding Florida Water," Powell said.

He said the refinery has been in exist-

ence for more than 50 years.

"It's an eyesore," Powell said. "There are levels of contamination that could be harmful to human health or the environment."

He said the city of Tallahassee has a successful brownfield program and he believes the refinery site could be another brownfield success story.

"We believe this property can be put back into good, productive use," he said.

The cleanup and redevelopment project is being funded in part by dollars from a brownfields revolving loan fund provided by the Tallahassee Brownfields Coalition.

The city of St. Marks also has obtained a cleanup grant of its own. The resulting total of \$400,000 will be used for engineering design and completion of a two-foot thick soil cap over the contaminated property.

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### FEDFILE From Page 2

people and are thus eligible to receive benefits from this grant program.

Particularly notable is that about 80 percent of the small systems serve fewer than 500 people, posing unique challenges to meeting federal drinking water standards.

These grants that are awarded annually are an attempt to help these small facilities improve their water purification and wastewater treatment.

**Tracking water improvement.** The Alliance for Sustainable Agriculture recently updated its predictive software product, Fieldprint Calculator, with a new component, Water Quality Index for Agricultural Runoff, which allows farmers to input characteristics about their farm land and practices that yields an estimated impact rating for their runoff water quality.

The program is based on a popular software package provided by the U.S. Department of Agriculture's Natural Resources Conservation Service. The software provided by the alliance makes calculations based on user-supplied information about slope, soil characteristics, nutrient and pest management, and tillage and conservation practices.

The algorithm yields a single number on a scale of 0-10 intended to inform the farmers how their agricultural practices influence runoff water quality. The calculator makes estimates for different crops including corn, cotton, wheat, soybeans, rice and potatoes.

The software developers compared the usefulness of their approach to the Dow Jones Index to explain its utility. It is intended to reflect a large amount of complex data and number crunching in a single value that is easily understood by nontechnical users.

It makes it possible for farmers to look at ways to continually improve runoff water quality, which benefits them by keeping nutrients and water in their fields.

**First place for UF stormwater team.** A University of Florida design team won the first-place prize in the EPA's 2013 Campus RainWorks Challenge for its innovative green infrastructure plan to handle stormwater runoff on the Gainesville campus.

The design team developed a three-phase plan to convert a 68-acre "sub watershed" on the campus. The plan included creating surface stormwater channels that include bioswales and "daylighted pipes" that mimic streams leading to a stormwater detention area.

According to the student designers, their plan treats and retains stormwater, improves groundwater recharge and improves aesthetics and safety along a major road on the UF campus.

The prize included a \$2,000 cash award and a visit from EPA Acting Assistant Administrator for Water Nancy Stoner to present the winning team members with award certificates.

The EPA, in collaboration with the Water Environment Federation and the American Society of Landscape Archi-

ects, organizes and judges the Campus RainWorks Challenge.

The goal is to engage college and university students and faculty "to apply green infrastructure principles and design, foster interdisciplinary collaboration and increase the use of green infrastructure on campuses."

Rainwater has become a notably paradoxical resource because it is both uniquely valuable, is frequently available in excess and often becomes overly enriched with nutrients and contaminants that pollute water bodies.

The challenge encourages students to develop ways to conserve water and improve water quality for subsequent uses.

**Navy consolidates Jax airfields.** In its final environmental impact statement, the U.S. Navy determined that it can consolidate three Poseidon P-8A aircraft base locations into two in the Jacksonville area.

Under a new "preferred decision," NAS Jax would be a home base for six Poseidon P-8A fleet squadrons—as many as 54 Poseidon P-8A aircraft—by 2020.

The Navy's existing plan was established in 2008 and the first Poseidon P-8A aircraft began operating out of NAS Jax in 2012.

Under its new plan, the Navy said there would be no adverse impact to airspace operations, air quality or socioeconomic factors. Environmental impacts on adjacent ecological communities have not been observed.

Implementing the Navy's preferred plan will cost about \$21 million and includes extending runways and renovating hangars.

**DoD award for Elgin.** Elgin Air Force Base in the Panhandle won the 2014 Secretary of Defense Environmental Award for Natural Resources Conservation.

The award acknowledged the efforts of Elgin's Natural Resources Team to develop "long-range solutions that ensured regulatory compliance while maximizing the use of land and water ranges to maintain mission readiness."

Elgin Air Force Base is the largest forested military reservation in the country. It covers over 120,000 square miles.

The natural resources are managed by the Elgin Natural Resources Team, including 32 biologists, foresters, forestry technicians, fire management specialists and fire ecologists.

Accomplishments cited in the award include the granting of a "blanket take" for the endangered red cockaded woodpecker; hosting an Inter-Agency Prescribed Fire Combustion and Atmospheric Dynamics Research Experiment that used Elgin's forests to measure fires in a controlled environment; restoring more than 12,000 acres of longleaf pine habitat through logging operations that removed 50,000 tons of invasive sand pine; and working with the Florida Fish and Wildlife Conservation Commission to establish a Black Bear Management Plan and the first Black Bear Management Unit in the state.

Elgin's Natural Resources Team decision-support system has been adopted by 19 other Air Force installations and the Air Force Wildland Fire Center.

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**PERMIT**

From Page 10

required to complete the application. The first step towards permit issuance is providing the applicant with a written notice of intent to issue a permit, a draft permit and a public notice.

Affected parties may petition for an administrative hearing within 14 days from the date of "actual notice" or from publication of the Notice of Intent, whichever occurs first.

Affected parties, federal agencies and the public may provide comments on the draft permit. The comment period ends 30 days after publication for PSD permits and 14 days after publication for all other permits.

If the draft permit is substantially revised due to public comments, the permitting authority will issue a revised draft permit and require another public notice.

Hearings are conducted by the Florida Division of Administrative Hearings. DEP cannot issue a final permit until the administrative law judge issues a recommended order.

If the draft permit is not substantially revised and no hearing is requested, the final permit decision is issued promptly following close of the public comment period. Substantial revisions based on comments require a new public notice.

The final permit decision may be appealed to a Florida District Court of Appeal. A notice of appeal must be filed within 30 days of the final permitting decision.

**Permit content**

Air construction permits specify the equipment capacities, operational restrictions, air pollution controls, emission limits, work practice standards, monitoring and testing requirements, records, reporting provisions and other compliance demonstrations.

Each permit has an expiration date that authorizes a period of time to construct, test and operate while obtaining an air operation permit.

Nevertheless, the limitations and requirements in the air construction permit that are applicable to the design and operation of the equipment remain in effect until the equipment is permanently shut down or the requirement becomes obsolete by its nature, such as a requirement for initial compliance testing would become obsolete once conducted. See subparagraph 62-210.300(1)(b)1, FAC.

These permit conditions are applicable requirements for operation permits and may only be revised by a subsequent air construction permit or modification of the original air construction permit.

**ORCA**

From Page 8

Understanding the impact of pollutants on the quality of lagoon water.

The study will involve ORCA's science and technology, including the Kilroy water monitoring system and FAST sediment testing, along with other components.

"There is a clear issue on the role of fertilizers on the lagoon's health," said Arrington, who has worked as a research scientist for the South Florida Water Management District. "But we are hoping to discern the many other potential sources of pollutants. Our goal is to collect high quality data and partition out the importance of the various sources of pollution."

Officials say the goal is to complete a project that will provide decision-makers with scientific results of the impact of various pollution sources on the lagoon.

ORCA's CEO and Senior Scientist Edie Widder, PhD, will be leading the research project. Additional scientists and engineers from ORCA will participate in the project.

"We want to look at possible solutions," Arrington said. "To use a medical analogy, we have a sick patient right now and we understand that the blood pressure is high. But we need to see whether the cause is due to dietary factors or lack of exercise. We can then better diagnose and look at solutions."

In 2005, Widder founded ORCA in Fort Pierce to develop innovative technologies that can protect and restore aquatic ecosystems and the species they sustain.

**PSD permits**

Applications for air construction permits subject to PSD major source preconstruction review are required for: 1) new major sources with potential emissions of a PSD pollutant of 100 tons/year or greater (including fugitive emissions) if one of the 28 PSD "listed" facility categories (see list at right); 2) new major sources with potential emissions of a PSD pollutant of 250 tons/year or greater; or 3) major modifications to existing PSD major sources that equal or exceed the PSD significant emissions rate defined in Rule 62-210.200, FAC.

Applications for PSD projects are much more comprehensive and require a rule applicability analysis, a review of the

**28 PSD Listed Categories**

1. Fossil fuel-fired steam electric plants (> 250 MMBtu/hour)
2. Coal cleaning plants w/thermal dryers
3. Kraft pulp mills
4. Portland cement plants
5. Primary zinc smelters
6. Iron and steel mill plants
7. Primary aluminum ore reduction plants
8. Primary copper smelters
9. Municipal incinerators (> 250 tons per day)
10. Hydrofluoric acid plants
11. Sulfuric acid plants
12. Nitric acid plants
13. Petroleum refineries
14. Lime plants
15. Phosphate rock processing plants
16. Coke oven batteries
17. Sulfur recovery plants
18. Carbon black plants (furnace process)
19. Primary lead smelters
20. Fuel conversion plants
21. Sintering plants
22. Secondary metal production plants
23. Chemical process plants
24. Fossil fuel boilers (totaling > 250 MMBtu/hour)
25. Petroleum storage and transfer units w/total storage capacity > 300,000 barrels
26. Taconite ore processing plants
27. Glass fiber processing plants
28. Charcoal production plants

**Construction in non-attainment areas**

In 2010, the U.S. Environmental Protection Agency revised the National Am-

best available control technology, an air dispersion modeling analysis and an additional impacts analysis.

For these projects, it is critical that an applicant hire a consultant experienced in PSD preconstruction permitting and air dispersion modeling.

It is also highly recommended that an applicant schedule a pre-application meeting with the division to discuss the project and expectations. Good communication is essential to satisfying the regulatory requirements and getting authorization to construct quickly.

bient Air Quality Standards for nitrogen dioxide and sulfur dioxide.

After collecting and reviewing ambient air quality data, the state designated two small non-attainment areas for SO2, one in Hillsborough County and one in Nassau County.

DEP is currently developing a plan for meeting attainment requirements in these areas.

Florida also has one very small non-attainment area for lead in the Tampa Bay region.

Any new projects within these non-attainment areas will be subject to non-attainment area new source review. This permitting process requires meeting the "lowest achievable emissions rate" excluding cost considerations, and obtaining emissions offsets prior to beginning construction.

Recent monitoring data shows significant improvement in the air quality in these areas.

DEP's plan for attainment will bring those areas back into compliance with the federal air quality standards.

Jeff Koerner, PE, is the program administrator in the Office of Permitting & Compliance at the Florida Department of Environmental Protection in Tallahassee. The permitting section website is <http://www.dep.state.fl.us/Air/emission/permitting.htm>.



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# Homestead turns city's wastewater biosolids into organic fertilizer

By **SUSAN TELFORD**

The city of Homestead and the South Dade Soil and Water Conservation District are partnering on a facility that will convert all of the city's wastewater biosolids into an organic fertilizer to be sold under the name Homestead Organix.

Over 10 cubic yards of sewage is delivered three times a week from the Homestead Wastewater Treatment Plant and put into a rotating composter for four days.

Oxygenated biosolids generate enough bacteria to heat pathogens, causing the right bacteria to grow. The final product, a

synthetic fertilizer, is spread in a greenhouse to cool.

Homestead's greenhouse system is built with a retractable roof that closes when it rains, enabling the facility to operate year round, in stark contrast to the Black Point facility that is forced to close during the rainy season.

"This season we've had so much rain, we can't dry it," said Morgan Levy, administrator at the SDSWCD, regarding the county's existing system.

SDSWCD hopes to fill a void in the market for composted sewage sludge for fertilizer.

"Farmers are crying for it," said Levy.

Local farmers are looking forward to the benefit of the cost savings. Homestead Organix will be sold for \$5 per 40-pound bag, a considerable savings compared to the average cost of \$16.50 per 40-pound bag commonly found at retail stores.

"I'd say it is definitely needed," said Daniel Lyons, a tropical fruit tree farmer and owner of a 120-acre tree farm in Redland.

Lyons grows mango and banana trees, and has used composted sewage sludge in the past.

But not all farmers are on board.

"I am not excited about that product," said John Alger, president of Alger Farms. "I have to avoid it like it was leprosy. If it has any fecal matter, it ain't happening."

Alger sells his vegetables to retail chain stores and has to pass third-party audits that question whether fertilizers he uses contain human waste.

"It's a great idea to fertilize your lawn, but don't touch food (with it)," he said.

## WOOD

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not changed for 30 years.

The current regulations are so absurd that mulch or dirt with relatively small concentrations of arsenic can't be used for horticultural or gardening purposes. Meanwhile, at the same home site, a termite barrier that may contain up to 100 times that concentration of arsenic may be legally placed beneath the home.

The low-point in the failure of materials recycling governance came with the processing of Hurricane Andrew disaster debris in 1992-1993. In an effort to minimize disposal costs and maximize recycling, large equipment vendors processed the waste by removing metal debris, large

## FRACKING

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what they did," wrote Jennifer Hecker, director of natural resource policy at the Conservancy of Southwest Florida, in a statement to the press. "We don't even know if it's possible to clean an aquifer after it's been polluted."

Collier County's drinking water wells pump water from the relatively shallow Tamiami Aquifer, which is located beneath most of Southwest Florida and has an average depth of 118 feet, and from the deeper, brackish mid and lower Hawthorne Aquifer, which are 487 and 847 deep, respectively.

Per Florida law, a company must get permission from the state if they intend to perform hydraulic fracturing, but they don't need a separate permit from DEP to perform it.

According to Bill Townsend, projects manager at the SDSWCD, although the product is safe to use on vegetables, the product is not marketed to that industry. The tropical fruit and the citrus industries have a high enough demand for the product to keep him busy.

The SDSWCD is a governmental agency and therefore, must meet state Department of Agriculture safety regulations, as well as all federal, Miami-Dade County and Florida Department of Environmental Protection Agency regulations that dictate that SDSWCD composts its product for four days at 160 degrees Fahrenheit to kill bacteria.

It is anticipated that the facility will pay for itself within two and a half years, eventually saving the annual \$200,000 dumping fee that it no longer has to pay to the county.

The city will also receive 10 percent of the profit from the sale of Homestead Organix.

trees and screening the soil materials.

Even after extensive sampling, the U.S. Army Corps of Engineers shut these sites down and later refused to allow reuse of the processed soil. As a result, approximately 300,000 cubic-yards of usable soil material was disposed of at Class I landfills for full tipping fees with your money.

At the same time, the U.S. Department of Agriculture's Soil and Conservation Service was buying and delivering soil to farmers to replenish erosion damage. The trucks passed each other on I-95—a monetary swing of tens of millions of dollars.

It does not appear that much has changed for the better in the ensuing 20 years. In today's common view, it is hard to envision how abundance could turn to scarcity. But in my view, it is not *if* the worm will turn, it is *when*.

If policies and programs related to recycling and reuse are not revised to comport with science, rational consumption and long-term necessity, we will continue to "deficit spend" our future time and money, and squander our precious soil and organic resources.

*Jerry Wood, PE, is a licensed professional environmental engineer and environmental regulation consultant. He can be reached at jerrywoodpe@cfl.rr.com.*



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