

Florida Specifier

**FLORIDA
REMEDICATION
CONFERENCE**

October 14-15, 2010
The Southeast's Top Cleanup
Conference of the Year

Practical Information For Environmental Professionals

Single Copy Price: \$5

June 2010

Volume 32, Number 6

Atrazine study reopened 5

The U.S. Environmental Protection Agency announced it would reopen a study of the human and environmental health effects of atrazine, an extensively used weed killer. The herbicide has been in use for half a century and its use is now so pervasive that it has multiple powerful advocates fighting to maintain the status quo.

Orlando upgrade 7

The wastewater system in the city of Orlando will get a major make-over starting in 2011. \$144.4 million will be spent for improvements including \$6.8 million for pipeline replacement and rehabilitation; \$18.4 million for lift station projects; and \$24.7 million for improvements at two of the three treatment plants there.

Baffle box study 8

In 2005, Sarasota County engaged GPI Southeast in Tampa to determine the pollutant removal effectiveness of Type 1 baffle boxes with no horizontal screens and Type 2 baffle boxes that have horizontal screens to filter gross solids. The results are in.

Petroleum program update 10

Glenn MacGraw provides insight into changes made to the petroleum cleanup program during the 2010 legislative session, including an increase in program funding.

Departments

Calendar	11
Classifieds	14
Federal File	2
Florida Notes	3
Water Watch	4

Got a lead?

Got an idea for a story? Let us know and we'll follow-up on it. 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 around the state. Send to P.O. Box 2175, Goldenrod, FL 32733. Call us at (407) 671-7777; fax us at (407) 671-7757, or email us at info@enviro-net.com

Address label correct?

If your mailing label is inaccurate or incomplete in any way, please contact us with your current information at the address above. We appreciate your assistance.

Sugar firms file suit over permit requirements

By PRAKASH GANDHI

Florida's sugar growers are battling with federal officials over tough rules they believe place unfair burdens on them. Two giant sugar companies, Florida Crystals Corp. and U.S. Sugar Corp., have filed federal lawsuits to stop the regulation under the Clean Water Act.

Company officials are angry with the U.S. Army Corps of Engineers, claiming the agency has improperly started requiring wetland destruction permits when they convert their lands to non-agricultural use.

"This is a case of government run amok," said Judy Sanchez, a spokeswoman for U.S. Sugar Corp. "The corps cannot simply change policy on a whim and make arbitrary and capricious rulings that impact more than 53 million acres of America's farmland."

The new rules would let the corps either block new plans or require the companies to pay for preserving wetlands elsewhere in proportion to those being destroyed.

Florida Crystals officials did not return calls for comment. But the company argues in the legal action that the new federal rules have stopped plans to create a 100-acre ash dump for its cane burning power plant. The company now trucks the soot 60 miles away.

Jacksonville jumps on LID bandwagon with manual for new construction

By MELORA GRATTAN

Low impact design standards such as pervious pavements, green roofs and biofiltration are not new concepts in Florida. However, few local governments have formalized LID standards in order to incorporate them as significant tools for conserving water and reducing pollution.

Following closely in the footsteps of Sarasota County, officials in the city of Jacksonville are in the process of developing an LID manual as a voluntary alternative to traditional building techniques.

One of the drivers for the manual is a natural progression of previous ordinances aimed at achieving the nutrient total maximum daily load for the St. Johns River.

"Besides building stormwater ponds, this would be an upstream practice to reduce overall loading of stormwater," said Vince Seibold, PE, chief of Jacksonville's Environmental Quality Division.

The city's related ordinances include a partnership with JEA on mandatory hookups to the reuse system and the phasing out of septic tanks, as well as one that encourages green building by providing a refund for projects that obtain certification from an acknowledged program.

"There are a lot of initiatives and this is another piece of the puzzle to reach a healthy sustainable life and improve the health of the river," Seibold said.



U.S. Navy photo by Patrick Nichols

Kayakers at Naval Air Station Pensacola detour around oil containment boom at Sherman Cove. The boom was set to protect environmentally sensitive grass beds from the Deepwater Horizon oil spill. See related story on Page 9.

U.S. Sugar says the new requirement has delayed the start of rock mining by Stuart Mining Industries, which is leasing land from the sugar giant and would be paying rent and royalties if work had started.

The requirement's effects go much further than South Florida's cane fields, say the sugar companies. The implications of the rules will affect the 53 million acres of U.S. farmland that was once wetlands, say the companies.

The two firms refer to a 1993 corps ruling that said farmland legally converted from wetlands in prior decades would not be subject to Clean Water

Act requirements.

In the suits, Crystals says the cost to offset destruction of one acre of wetlands in the region runs about \$90,000. U.S. Sugar says the permits can cost, on average, \$272,000 and take more than two years to obtain.

Sanchez said that rather than involve the public and follow federally prescribed due process, the corps arbitrarily changed its long-standing policy that agricultural lands converted from wetlands prior to 1985 were exempt from

SUGAR
Continued on Page 6

The secondary driver for a manual has been the development community itself expressing interest in how these practices will be permitted, he said. "There is an interest and it is growing in terms of the development community, so the manual will get a lot of mileage. With the manual, they will know they can get local approval as easy as a traditional build."

The city has been working on the manual for about a year. It formed a sub-

committee of a subdivision standards policy advisory committee and has met with stakeholders and state stormwater officials, and taken field trips to subdivisions employing the practices.

A preliminary draft manual that mirrors the Sarasota document has been completed, but they are still about a year away from adopting and finalizing it.

LID
Continued on Page 9

New lead paint rule now in effect

By ROY LAUGHLIN

In April, the U.S. Environmental Protection Agency implemented a new rule requiring certified workers to use designated procedures during the removal of lead-based paint and lead caulking in residences.

Over the past year and a half, the EPA certified approximately 100,000 lead paint and lead paint dust removal technicians. Despite industry complaints that there are not a sufficient number of certified technicians, so far no problems have been noted.

States may choose to enforce the new EPA rule or conduct their own program, so long as any new state program is at least as protective as the EPA's.

The Florida Department of Environmental Protection has no public plans at this time to develop a lead paint removal program to replace the EPA's, so the EPA rule is in effect here for the next couple of years at least.

In addition, the agency proposed a new rule to require dust wipe testing upon completion of renovations of homes subject to the lead paint rule.

The proposed rule requires that the results of testing be provided to the home's residents. The rule also has provisions to require that the lead level be below regulatory hazard standards.

LEAD
Continued on Page 5

Presorted Standard
U.S. POSTAGE
PAID
ORLANDO, FL
PERMIT 1556

1006

**Florida
Specifier**
P.O. Box 2175
Goldenrod, FL 32733
CHANGE SERVICE REQUESTED

Eight Florida communities, agencies selected for EPA brownfield funding

Staff report

The U.S. Environmental Protection Agency recently awarded eight brownfield grants in Florida. The Fort Pierce Redevelopment Agency received the largest amount, \$600,000. In addition, five local governments each received grants of \$400,000: Casselberry, Daytona Beach, South Daytona, Escambia County, and Gadsden County.

The Clay County Development Authority and city of Miami each received \$200,000.

The awards to local governments and

agencies in Florida were part of a total of 304 grants, revolving fund loans and site assessment funding provided by the EPA in 2010. The total disbursement is budgeted for \$78.9 million, to be spent in 40 states, four tribes and one U.S. territory.

The 2011 proposed budget includes an \$215 million increase for brownfield programs, and will support planning, cleanup, job training and redevelopment.

More information is available on-line at <http://www.epa.gov/brownfields>.

Lake Lanier lawsuit. The state of Georgia has brought suit to overturn a lower

court's ruling last year that might restrict Georgia's allotment of water from Lake Lanier.

Last summer, U.S. District Court Judge Paul Magnuson presided over a court case involving water rights for Florida, Alabama and Georgia. In that case, Judge Magnuson found that Georgia had little legal right under federal law for Lake Lanier water.

The judge's decision jeopardizes potable water supplies for approximately 3 million residents of Atlanta. Gwinnett County, northwest of Atlanta, relies solely on Lake Lanier for its drinking water supply. Gwinnett filed a separate suit against Judge Magnuson's decision.

The court decision arose from a lawsuit between Florida, Alabama and Georgia over sharing water from the Chattahoochee River. Lake Lanier, formed by damming the Chattahoochee River north of Atlanta, restricts water flows downstream.

The three states have argued over water rights since the 1990s, and the court case was an attempt to finally settle the dispute.

In addition to filing an appeal, Georgia's Gov. Sonny Purdue has reopened negotiations with Alabama and Florida over water allotments from the Chattahoochee River.

Saccharin status. In April, EPA proposed to remove saccharin and saccharin salts from its list of hazardous wastes, hazardous constituents and hazardous substances. The agency proposes this change because saccharin is no longer considered a hazard to human health.

Saccharin was placed on the hazard lists in the 1980s when rodent experiments indicated that ingestion caused tumors. On that basis it was considered a potential human carcinogen and added to hazardous substances lists.

A reevaluation by the National Toxicology Program and the International Agency for Research on Cancer performed in the 1990s concluded that saccharin and its salts are not potential human carcinogens.

The EPA explained its proposal by noting that no currently accepted scientific basis exists for placing saccharin on a potential human cancer risk list.

Saccharine is widely used as a sweetener in diet soft drinks, chewing gum and fruit juices.

The EPA initiated a public comment period when it made the announcement for delisting saccharin. The public comment period closes in mid-June.

Toxicity database. In early May, the EPA released its ToxRefDB database for public use. ToxRefDB provides access to thousands of toxicity test results obtained during the past 30 years.

The data are part of the agency's Aggregated Computational Toxicology Resource, ACToR, a collection of data from 500 public sources on tens of thousands of environmentally relevant chemicals.

The ToxRefDB database is a subset of this larger ACToR database and contains retrievable toxicity information on several hundred chemicals.

ToxRefDB is aimed at scientists and the interested public. It allows them to search and download thousands of toxicity testing results for the database's chemicals.

A query about a specific chemical will yield "all available public hazard, exposure, and risk assessment data, as well as previously unpublished studies related to cancer, reproductive and developmental toxicity," according to the EPA's press release.

The EPA noted that ToxRefDB includes toxicity information that could be used in pesticide risk assessment when the database's information is considered along with information from other sources on exposure and metabolism of these chemicals.

Everglades progress criticized. Judge Alan Gold of the U.S. District Court in Miami recently criticized policies and efforts to reduce nutrient pollution in the Everglades.

The judge's comments arose as a result of a case in his court between the Miccosukee Indians and Friends of the Everglades against the EPA and the South Florida Water Management District.

In the 1990s, SFWMD and other agencies entered into an agreement to set new water quality standards for nutrients and develop methods to meet those standards. The goal was to reduce excess nutrients causing a shift from native sawgrass to invasive wetland species such as cattails.

The state codified its commitments to a 1994 agreement with the Everglades Forever Act. A 2003 amendment to the law pushed back the schedule for achieving the phosphorus input reductions. That delay was the issue in the recent lawsuit.

Judge Gold stopped short of any further judicial action against the state of Florida or the EPA. He did however voice harsh criticisms of the agencies for their failures.

In response to the decision and criticism, the Florida Department of Environmental Protection released a statement saying that its actions have been consistent with the Clean Water Act, prior court decisions and Florida laws.

The result of these actions, DEP further stated, maintains compliance with the Clean Water Act and are protective of the Everglades. DEP said that it will appeal the judge's decision.

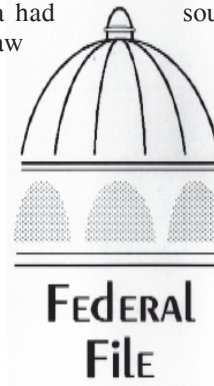
Homebuilder settlement. K. Hovnarian Homes, one of the country's largest home builders, agreed to a court settlement with the EPA over stormwater violations at construction sites nationwide.

The company has construction projects in 18 states and the District of Columbia, including several in Florida.

The focus of the EPA's enforcement actions was the company's projects in the Chesapeake Bay watershed, but the allegations included violations in other geographical areas.

The EPA said violations included failure to obtain NPDES permits for many of its construction sites. In addition, permitted sites had failures to prevent or minimize discharge of silt and construction site debris in stormwater.

The EPA said 161 of the 591 sites in its complaint action brought to the U.S. District Court in Philadelphia were in the Chesapeake Bay Watershed. By comparison, only 28 of the sites listed in the complaint were in Florida.




Laboratory Data Consultants FL, Inc.
"An Independent Environmental Quality Assurance Company"
 The Developers and Experts in ADaPT/ADR

The QA Experts For: *Certified SBA 8(a)*

Laboratories	
Environmental Engineers	112 Kings Way
Government Agencies	Royal Palm Beach, FL
	33411
Municipalities	Ph (561) 753-0483
	Fx (561)-771-1721
Permitted Facilities	LDCFL.com



WHY CUSTOM DRILLING...
 because we will have all the materials to complete the job as specified.



CUSTOM DRILLING SERVICES, INC.
 Mining | Environmental | Construction | Industrial
 800.532.5008 | WWW.CUSTOMDRILLING.NET

Proven Soil Remediation in Florida with a Performance Guarantee!

Adventus Americas Inc. has announced a groundbreaking new policy: the industry's only performance guarantee in the soil bioremediation marketplace. Site owners, environmental consultants, attorneys, insurance companies, and governmental entities addressing hazardous substance impacts can all benefit.

Driving this warranty are Adventus' patented DARAMEND® and TERRAMEND® technologies. These solutions are accepted by FDEP and they have successfully remediated more than 7,000,000 tons of soil impacted by a wide range of recalcitrant compounds, including:

Organic Explosives	Heavy Hydrocarbons	Phthalates
Polycyclic Aromatic Hydrocarbons (PAHs)	Chlorinated Herbicides	Chlorinated Pesticides

The DARAMEND technology has been proven effective for in-situ treatment of soils containing even the most recalcitrant chlorinated pesticides such, as Dieldrin and Chlordane—soils traditionally excavated and sent off site for disposal, typically at a substantial expense.

DARAMEND® and TERRAMEND® are the subjects of numerous patents owned by Adventus Intellectual Properties, Inc.

By contractually agreeing clean-up results to a specified remedial goal, Adventus offers an unmatched risk-sharing remedy to decision makers across the hazardous waste removal landscape.

How can we be so confident? Because our technologies are proven in the field—where it counts. Following a successful pilot demonstration at your site, we will back your remediation project with our product warranty.

For soil remediation results that matter, contact our Florida office today for a free site evaluation so you can get started.

ADVENTUS
 55 East Broad St. • Titusville, FL 32796
 tel 866.965.1777 • fax 321.747.0316
www.AdventusGroup.com

DARAMEND®
 The Original ISCR Reagent for Surface Applications

TERRAMEND®
 Inorganic Soil Amendment



Florida Specifier

P.O. Box 2175
Goldenrod, FL 32733
Phone: (407) 671-7777
Fax: (407) 671-7757
info@enviro-net.com
www.enviro-net.com

MICHAEL R. EASTMAN
Publisher/Editor
mreast@enviro-net.com

NORM BAYES
Comptroller

Contributing writers and columnists

JEFF CHRISTIAN
Chief Operating Officer
Columbia Analytical Services Inc.
Kelso, WA

GORDON ENGLAND, PE, DWRE
President
Stormwater Solutions Inc.
Cocoa Beach, FL

JOHN J. FUMERO, ESQ
Partner
Rose, Sundstrom & Bentley LLP
Boca Raton, FL

PRAKASH GANDHI
Senior Environmental Correspondent
Orlando, FL

MELORA GRATAN
Environmental Correspondent
Newnan, GA

BLANCHE HARDY, PG
Environmental Correspondent
Sanford, FL

ROY LAUGHLIN
Environmental Correspondent
Rockledge, FL

GLENN R. MacGRAW, PG
Northwest Florida Regional Manager
The FGS Group
Tallahassee, FL

THOMAS F. MULLIN, ESQ
Associate
Rose, Sundstrom & Bentley LLP
Boca Raton, FL

The *Florida Specifier* makes every effort to ensure the accuracy and validity of all editorial and advertising content. The newspaper is independent in its views and does not support, endorse or guarantee any data, statements or opinions that appear under any reference or are attributed to or quoted from any known source. The views expressed by authors do not necessarily reflect the views of NTCC, Inc. or the *Florida Specifier*.

The *Florida Specifier* (ISSN 0740-1973), founded in 1979, is published each month for \$24.95 per year (\$49.95 for three years) by National Technical Communications Co., Inc., P.O. Box 2175, Goldenrod, FL 32733. Subscription refunds are not provided.

Standard postage paid at Orlando, FL 32862. **POSTMASTER:** Send address changes to the FLORIDA SPECIFIER, P.O. Box 2175, Goldenrod, FL 32733.

© Copyright 2010 by National Technical Communications Co., Inc. All rights reserved. No part of this publication may be reproduced or transmitted in any form without the publisher's prior written permission.

ENVIRO-NET

Electronic access to the *Florida Specifier* is available at www.enviro-net.com.

NTCC National Technical
Communications
Company, Inc.

National Technical Communications Co., Inc.
P.O. Box 2175 • Goldenrod, FL 32733
(407) 671-7777 • Fax (407) 671-7757
info@enviro-net.com

New biomass plant under fire for pollution potential

Staff report

A conservation group and a few dozen residents in Gulf County are challenging the state's intent to issue an air emission permit for a proposed biomass plant along the Intracoastal Canal in Port St. Joe.

An attorney for The Biomass Accountability Project filed a petition for an administrative law hearing on the permit, saying the review was not as complete and careful as it should have been and that assumptions were made about the supply of clean wood that will be used as fuel.

The group argues that the biomass plant will not be carbon neutral as claimed by the builder, Biomass Gas and Electric.

The Georgia-based company said that only woody biomass would be used as fuel, which includes fast-growing grasses and residue from forests. While state and federal officials are advocating biomass technology as an important renewable source of energy, some groups are disputing the environmental friendliness of the technology.

For instance, the petition on the permit says the facility would generate more particulate pollution and carbon dioxide than two coal-fired plants in the region. A loophole in federal guidelines means biomass plants do not have to meet the same air emission requirements as other power plants, said the conservation group attorney.

Similar criticism has already forced BG&E to relocate a proposed site in Tallahassee for a similar facility.

Mining expansion. Zoning officials approved a plan to expand rock mining activities in western Palm Beach County with numerous conditions that include a wildlife corridor and a fee on the amount of stone and sand sold that would be used for additional projects.

Palm Beach Aggregates proposed the addition of 2,300 acres to its current operations. The proposed expansion includes a pit that could be used as a reservoir later, and should not have the same pollution problems with fertilizer and salt as nearby pits sold to the state because it will be only half the depth, according to a company consultant.

Environmental groups oppose the expansion, saying the material is not needed due to current economic conditions and that the activities pose a risk to the aquifer.

The expansion plan must still secure permits from state and federal agencies.

Tampa seeks new partner. Since the early 1980s, the city of Tampa and Tampa Electric Co. have had a contract for the electricity produced at the McKay Bay Refuse-to-Energy plant. Under that agreement, TECO has purchased the 22 megawatts produced per hour at wholesale rates.

Last fall, the Florida Public Service Commission objected to the rates as too high and subsequent negotiations have been unsuccessful. The city said it will look for a more flexible partner when the contract expires in August 2011.

The plant incinerates about 1,000 tons of trash every day to produce the energy.

Sinkhole-damaged roads. Plant City leaders hired Earth Tech LLC to fill in sinkholes at roads in six places that were attributed to groundwater pumping by farmers trying to protect crops during freezing temperatures this winter.

In addition, the company was awarded a contract to fix unstable soil and a sinkhole that is threatening a 500,000-gallon water tank.

The two contracts total about \$1.35 million. The work was expected to take up to a month to complete.

UST site awareness. The Florida Department of Environmental Protection recently expanded its maps and list of contaminated sites on-line as part of an effort to educate communities on local sites that include spills from underground petroleum storage tanks.

Leon County, for instance, had 13,527 contaminated sites and every one of them was from leaking USTs.

One of the non-compliant facilities included the Florida A&M central manufacturing plant, where an out-of-compliance UST has resulted in spills on the surface around the tank.

Other sites include a bus terminal and gas stations.

Landfill lawsuit settled. Orange City leaders voted to end many years of legal disputes involving a landfill operated by GEL Corp.

A settlement agreement and additional documentation resolves two lawsuits filed by the city in 2006 for violating codes after numerous fires at the recycling landfill.

The agreement requires specific steps in the event of a fire. It also requires city leaders to review related land use and code issues.

DEP officials have said there is some contaminated soil and possibly water at the site that stems from a previously operated landfill.

However, the settlement agreement

does not include the terms of any future remediation activities.

Landfill cleanup plan disputed. Jackson County officials gave the green light for their consultant to devise a plan to remediate contamination of groundwater at a landfill that has been closed for almost two decades.

Monitoring alone was accepted until 2000. But DEP demanded remedial action in 2002 when the contamination migrated off site.

A pump-and-treat plan was never carried out, and now a different consultant for the county disagrees with the state on the best treatment option for cleanup.

Jones Edmunds and DEP concur that pump-and-treat would not be the best method. However, Jones Edmunds has said that landfill gas is the problem while the agency said there is no proof of that.

The agency has advocated excavation, but the consultant does not think this would be feasible.

NOTES
Continued on Page 14

Florida Notes



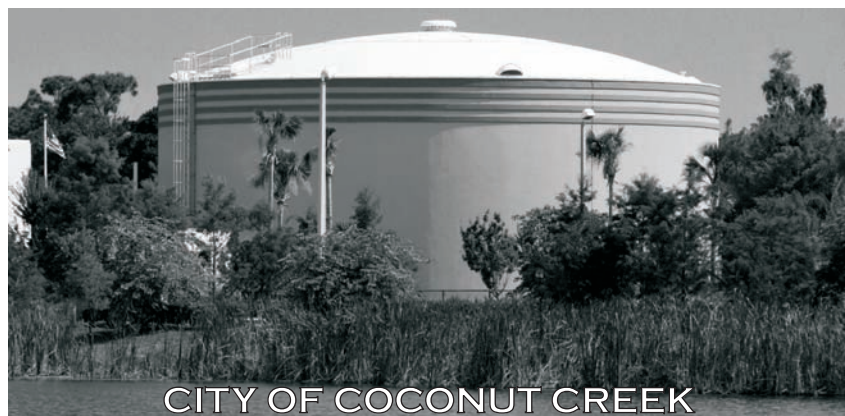
Prestressed Concrete Tanks



CITY OF PORT ST. LUCIE
2.0 MG WATER STORAGE TANK
REISS ENGINEERING, INC.



DEPARTMENT OF VETERAN AFFAIRS - GAINESVILLE
0.75 MG WATER STORAGE TANK
POLYENGINEERING, INC.



CITY OF COCONUT CREEK
2.0 MG WATER STORAGE TANK
MALCOLM PIRNIE, INC.

High Quality • Long Life
Virtually Maintenance Free

THE CROM CORPORATION

Builders of Water and Wastewater Tanks
250 S.W. 36TH TERRACE • GAINESVILLE, FL 32607
PHONE: (352) 372-3436 • FAX: (352) 372-6209 • www.cromcorp.com

Costs to comply with nutrient standards may be higher than predicted

Staff report

A newly released study concludes that the original cost estimates of meeting proposed numeric nutrient standards in Florida's waterbodies will be almost triple what federal officials projected.

The cost for implementing standards for acceptable amounts of phosphorus and nitrogen in Florida water bodies was projected to be around \$35 million by the U.S. Environmental Protection Agency.

However, that cost and lost revenues to farms is likely to be more than \$1 billion annually, according to a study conducted

by the Florida Department of Agriculture and Consumer Services, professors at the University of Florida's Food and Resource Economics Department, and Soil and Water Engineering Technology Inc.

EPA estimated that 6 million acres of agricultural and forest lands surrounding water bodies will be impacted, while this study found the number to be more than 13.5 million impacted acres. The study also estimates that more than 14,000 jobs will be lost.

"It's clear that, at a minimum, we are looking at tens of millions of dollars in costs, lost revenue in agriculture and related in-

dustries, and higher unemployment if the EPA's proposed rule is adopted," said Charles H. Bronson, commissioner of FDACS. "We believe EPA is grossly underestimating the number of farm acres that will be impacted and the indirect costs to related businesses."

The report says the agency's numbers are too low because they assumed that the standards are in place and the infrastructure needed to meet them has been paid for and completed.

This has not happened because the state stopped development of the standards when EPA settled a lawsuit by agreeing to establish federal standards, according to the study.

The impact will be devastating to all Floridians due to the economic climate, Bronson said.

The public comment period for the proposed rule ended April 28.

Lake O litigation. Legal representation for the Rivers Coalition filed an appeal to a January decision by a federal court judge that sided with the U.S. Army Corps of Engineers in allowing discharges from Lake Okeechobee into the St. Lucie Estuary and Indian River Lagoon.

The Rivers Coalition said the releases authorized by the corps cause pollution and amount to taking nearly two dozen landowners' riparian rights. The corps said the releases are made only when large amounts of rain threaten the dike around the lake.

While the corps' attorneys argued that the statute of limitations started when the releases began, Rivers Coalition representation said it should be applied at the time the discharges caused the most damage.

Oral arguments could be heard in July followed by a ruling by a three-judge panel on the U.S. Court of Appeals by year end.

Pinellas fined. State environmental regulators proposed an order and a fine of nearly \$300,000 that will require Pinellas County to invest millions in improving a wastewater treatment plant near Boca Ciega Bay.

Although there appeared to be no serious health risk, the St. Petersburg plant discharged effluent into Joe's Creek that surpassed limits for elements such as nitrogen, phosphorus and copper a total of 225 times from May 2007 to January.

The sheer volume of violations prompted the hefty nature of the financial penalty, said officials with the state Department of Environmental Protection.

The county has been upgrading the facility to meet tougher standards that took effect in 2007. Now, they will need to focus on lowering by-product levels such as copper by 2013.

The county may be able to reduce the fine if substantial improvements are made. So far, the county has agreed to around \$450,000 in odor control measures. Eventually, the price tag for the repairs and fine could total between \$2 million and \$15 million.

City to vote on utility purchase. In a few months, resi-

dents of Oviedo will vote on whether to issue \$36 million in revenue bonds to buy and improve Alafaya Utilities.

The city currently provides drinking water service to almost 34,000 customers in Oviedo and parts of Seminole County, as well as some wastewater and reclaimed water services to city residents. Alafaya supplies will allow the city to provide more wastewater and reclaimed water.

City officials say the buyout will improve efficiency resulting in better service at a reduced rate. For instance, connecting the reclaimed water systems should lead to more resources and expansion to as many as 900 new customers. Furthermore, the city said about 5 percent of revenues will be put toward maintaining and improving the system.

A subsidiary of Utilities Inc., Alafaya Utilities plans to sell its assets even if Oviedo residents vote down the purchase.

WWTP moved. Following litigation from a homeowners association, a wastewater treatment facility planned for a farm in southern Lake County will be located farther away from its neighbors.

John Arnold plans to move the plant back even more than originally proposed from the Tradd's Landing subdivision to appease homeowners there.

Arnold, a citrus grower, plans to build to facility so that wastewater sludge can be disposed of with a beneficial reuse.

After filtration, the effluent will be used to water orange trees and fertilize the property.

He plans to have it operating this fall.

Best tasting water. The Ave Maria Utility Co. took home statewide bragging rights for its water by winning the Florida Section of the American Water Works Association's Best Tasting Drinking Water contest in April.

This is the first year the utility entered the contest. It will compete in the national competition this month in Chicago.

With a capacity of 1.67 million gallons a day, the plant treats water from three wells with membrane softening technology.

Unpermitted pipe causes problem. An Ocala developer was issued a violation notice by the St. Johns River Water Management District for an under-drain pipe that was not part of the permitted design for a drainage retention area.

District officials believe this pipe may have contributed to more water flowing into a wetlands area and off-site onto property that has been experiencing flooding.

The notice was sent to Roy T. Boyd III, developer of the Bellechase subdivision. Bellechase is owned by a joint venture between Boyd Development and TECO Properties. Boyd had seven days to respond with how the violation condition would be fixed permanently. The pipe had been temporarily blocked.

Reuse project secures funds. \$1.6 million in federal monies has been secured to assist the city of Perry with a water reuse project.

The project involves building a pipeline from the wastewater treatment plant to be reused at the Buckeye Paper Mill. This will save money and keep the effluent from being disposed of on a nearby sprayfield.



Advanced Environmental Laboratories, Inc.

Andy Tintle to Manage AEL's New Tallahassee Service Center

We proudly announce that **Andy Tintle** has joined our network as our Tallahassee Service Center Manager. Andy will also serve as Technical Project Manager able to work with AEL clients throughout the state.

Andy has over 30 years of experience in the industry and most recently was an Environmental Manager and Quality Assurance Officer for the FDEP's laboratory in Tallahassee. While with the FDEP, Andy was extensively involved with managing the ADaPT program, data validations, managing QA aspects of large clean up projects, RCRA and TMDL audits, administering the QA Rule, 62-160, F.A.C., and writing sampling and analytical SOPs.

Andy can be reached at 850-445-6332.

Miami facility is now open and receiving samples!

Andy Romeu (Laboratory Manager) and Wayne Khan (Account Executive) are ready to help you with any projects.

Ask about our proprietary data review program - SELECT AEL

UST work? Dumps your data for FDEP Groundwater and Soil Analytical Summary Forms into MS-Excel, using YOUR format!

Large Project? Compares hundreds of results to the 62-777 limits almost instantly!
Preparing Report? Creates table in MS-Excel highlighting hits and exceedances!

Soil PAHs? Automatically produce Benzo(a)pyrene Conversion Tables!

Five SIX AEL Locations in Florida

- Jacksonville -

6601 Southpoint Parkway
Jacksonville, FL 32216
(904) 363-9350, FAX: (904) 363-9354
Brandon Beck - Lab Manager
bbeck@aellab.com

- Gainesville -

6815 SW Archer Road
Gainesville, FL 32608
(352) 377-2349, FAX: (352) 395-6639
Karen Daniels - Lab Manager
kdaniels@aellab.com

- Miami -

10200 USA Today Way
Miramar, FL 33025
(954) 889-2288, FAX: (954) 889-2281
Andy Romeu, PhD - Lab Manager
aromeu@aellab.com

- Tampa -

9610 Princess Palm Avenue
Tampa, FL 33619
(813) 630-9616, FAX: (813) 630-4327
Michael Cammarata - Lab Manager
mcammarata@aellab.com

- Orlando -

528 S. North Blvd., Ste. 1016
Altamonte Springs, FL 32701
(407) 937-1594, FAX: (407) 937-1597
Myrna Santiago - Lab Manager
msantiago@aellab.com

JAEE
Environmental Service, Inc.

A Full Service Water Well Contracting Company

Specializing in Geoprobe® soil and groundwater sampling, bioremediation injections, monitoring well construction and abandonment.

Fleet of 13 Geoprobe® Machines serving all of Florida
(5400 Truck Mounted, 54LT Track Mounted, 6600 Track/Truck Mounted, 6610/6620 Track Mounted)

Call or email for services today!

Phone: (954) 476-8333 Fax: (954) 476-8347

E-mail jae@bellsouth.net or visit us on the web at www.JAEEenv.com

EPA to reconsider atrazine status; NRDC calls for phase out

By ROY LAUGHLIN

In late April, the U.S. Environmental Protection Agency announced it would reopen a study of the human and environmental health effects of atrazine, an extensively used weed killer. It is one of the primary chemicals used in low tillage agricultural practices, generally considered an environmentally beneficial practice.

The herbicide has been in use for half a century and its use is now so pervasive that it has multiple powerful advocates fighting to maintain the status quo. The EPA renewed the herbicide's registration in 2003 and 2006.

Reopening an EPA study so soon after approval is an abrupt change but does not assure or even imply regulatory reversal. It is a signal from the agency that new scientific information warrants expert examination and interpretation. That may open the possibility of eventual changes to its registration status.

The Natural Resources Defense Council has called for a phase out of the herbicide's use in the U.S.

Coincident with the EPA's recent announcement, NRDC released a new atrazine report, essentially an update of the 2009 NRDC report "Health Effects of Atrazine Use in the U.S."

In its 2009 report, NRDC emphasized the occurrence of atrazine in 80 percent of 153 public drinking water systems sampled.

The May report highlighted several other reports that bring new information illustrating atrazine's effects at low doses affecting the development of humans and aquatic organisms. The action is broadly explained by the herbicide's action as an endocrine disruptor, particularly prevalent in amphibians.

One study demonstrated that frogs exposed to very low atrazine doses, 0.1 parts per billion, during the early development of gonadal tissues exhibited altered male sex characteristics.

Another, more extensive recent study of considerable interest was performed by University of South Florida researchers. Theirs was a meta-analysis of 125 published research studies evaluating developmental effects of atrazine on freshwater amphibians and fish.

That study, by researchers Rohr and McCoy, chronicled a consistent set of developmental abnormalities, particularly on gonadal tissue, for fish and amphibians

exposed to atrazine.

The NRDC uses the phrase "the timing is more critical than the dose" to characterize the insidious nature of atrazine damage. It explains greatly increased sensitivity during developmental periods when atrazine's effects have more impact than at other periods in life history.

Increased developmental sensitivity of early life history stages is not new, but the NRDC makes the point that in the case of atrazine, the low effective doses and specific responses make a clear case for banning the herbicide.

The NRDC took a close look at human health effects, citing two human health studies released after its 2009 report. In one of those more recent studies, investigators found a significant correlation between low birth weight and atrazine concentrations above 0.7 ppb in the public drinking water supply available to pregnant woman for the duration of pregnancy.

This study included 24,000 infants born to women in Indiana. Pregnant women in the same area whose public drinking water supply had concentrations below 0.3 ppb served as the control group.

Another 2009 study correlated increased risk of low birth rate in humans when pregnancy started between April and July. This study included records of 30 million births.

The NRDC suggests that atrazine could be a causal agent because its use peaks during the summer crop growing season, and human exposure is greatest at this time.

Sugarcane growers, concentrated around Lake Okeechobee, are among Florida's largest atrazine users. In its report, NRDC notes water samples from Belle Glade had mean atrazine concentrations of 1.31 ppb, clearly within the range that the organization says causes human health effects during early gestation.

An outright ban on atrazine poses a dilemma for American crop producers. Atrazine is one of the most effective chemical tools for low tillage agriculture, a practice which lowers energy use for crop production, and one that provides significant soil conservation and water quality benefits by reducing sediment runoff.

The NRDC report includes several recommendations to minimize human health effects from atrazine. The first is for the EPA to phase out atrazine use in U.S. agriculture. It also suggests farmers began seeking and using alternative agricultural practices that reduce atrazine applications.

tions will be a basis for the EPA to propose regulations to address hazards of lead dust that might be found during interior renovations of these buildings.

When might commercial and public buildings be included in the lead dust rule, if ever? The EPA first proposed lead paint rules in the early 1990s. No rulemaking occurred until a court case in 2008 required the agency to move ahead with rulemaking. The current rule is the result.

Based on the present rule, new rules are at least a year away. But the wait could be much longer.

The report encourages the EPA to begin watershed and public drinking water supply monitoring and to publish water analysis results "on-line in a user friendly format."


Finally, the report encourages the public to use a home water filtration system on their drinking water supply. In the meantime, it will be a while before the EPA does more than study atrazine's human health and environmental effects, again.

The EPA has conducted several hearings and a few more remain.

In the meantime, Josh Mogeran, a spokesman for the NRDC commented, "We will continue to watch the monitoring data ... and continue to share that information with the public."

"We feel strongly that [atrazine] is omni-present. It is essential to make people in impacted watersheds aware so they can take proactive steps to protect their health and their family's health."

NRDC's atrazine update is available at <http://www.nrdc.org/health/atrazine/files/atrazine10.pdf>.



Imagine ...

- a lab that responds to your needs
- a lab that can provide rush service when you need results fast
- a lab that provides results on time
- a lab has a 7-calendar-day standard turnaround time
- the lab you are now using doing all this!

Now try PC&B Environmental Laboratories and see the difference a true commitment to service and quality can make.

Call: (407) 359-7194
 pcblabs@bellsouth.net
 www.pcblaboratories.com

NELAC accredited • State Certified in Florida
 State Certified Minority Business

TM-Econ Mitigation Bank

Mitigation alternatives for wetlands projects in East Central Florida



Advantages:

- Costs known up front
- Full site utilization
- No alternative studies
- No mitigation assessment
- Removes liability
- Ecosystem enhancement

Full state and federal wetlands mitigation including Econ RHPZ.
 Call for assessment and quotes for all wetland mitigation requirements.

(407) 876-2755

jclark31@cfl.rr.com
 James L. Clark, SCV, Agent
 P.O. Box 885
 Windermere, FL 34786

LEAD From Page 1

The 60-day public comment period for this rule will close in the third week of June, 2010.

At the same time, the agency also gave advanced notice of proposed rulemaking to extend lead-safe work practices to commercial and public buildings.

A part of this rule announces investigations into public health hazards arising from interior renovations of public and commercial buildings.

The determinations of these investiga-

Geoprobe®

NEW 7822DT machine

- Improved Direct Push Functions
- More Geotechnical Capabilities



**more power
more options
small size**

call us to see this machine!

www.geoprobe.com

352-212-4080 or 1-800-436-7762



Geoprobe® 7822DT

Simple | Powerful | Reliable

Is Your Optical DO Sensor Rugged and Approved?

Choose the accurate, reliable In-Situ® **TROLL® 9500** multiparameter instrument with the Rugged Dissolved Oxygen (**RDO®**) sensor.

- **EPA-approved** – Nationwide approval was granted to **RDO** optical DO methods under the Alternate Test Procedure process.
- **Rugged performance** – The **RDO** sensor resists hydration effects, abrasion, and photobleaching.
- **On-site or remote access** – The **TROLL 9500** is ideal for ambient checks or for long-term deployments.

For more information, visit www.in-situ.com and call us at **1.800.446.7488**.




Innovations in Water Monitoring

New report: U.S. needs to mind its water, transportation infrastructure

By ROY LAUGHLIN

Americans are known to be extravagant with their water use. Furthermore, as a nation, our drinking water and wastewater treatment systems are in poor condition—and getting worse.

We are not paying enough to keep them in good repair, making clean water seem inexpensive and encouraging waste and excessive use of an artificially cheap commodity.

This policy of neglect is putting us further behind our economic rivals in Europe and Southeast Asia every day.

These are among the conclusions of "Infrastructure 2010: An Investment Imperative," the fourth in a series by the Urban Land Institute and Ernst & Young.

This year for the first time, the report has included a focus on water. The report concludes that the supply/demand equation is increasingly out of balance across many parts of the U.S., even in the Southeast, which has some of the highest rainfall totals in the country.

The report terms the problem a "conundrum." Reducing water usage and water conservation are not just an option any longer. The solutions will require water reuse, changing land use patterns to allow aquifer recovery and renourishment, and

financial investments possible only by increasing taxes and fees.

Maintenance of existing facilities and systems is essential to the efficient use of existing water supplies and for new sources such as reclaimed wastewater. Fixing leaks in drinking water and sewage treatment systems is an essential prerequisite across the U.S. for efficient and reliable reclaimed wastewater systems, said the report.

The report's authors pointedly comment that the U.S. in general is not charging water users enough to maintain the effectiveness of systems—essentially not charging the true cost of the water. The subsidy of deferred maintenance fosters profligate water use and eventually the bills will come due when the systems fail.

Miami was among several major American cities in the report used to illustrate our national water problems. Although Miami receives more rain annually than most American cities, the absence of adequate storage for that rainwater leads to seasonal shortages and significant lack during dry years.

Miami's problems spring from all four major causes identified by the report writers: aging pipes; uncertain water supply; struggles with regional coordination; and inadequate conservation programs.

The report links financial and global

economic competitiveness analysis to highlight the consequences of poor water policy and resource management. The report writers conclude that facts in their analysis demonstrate investment in water resources results in financial returns much greater than costs. This premise is a hotly debated topic in an era when politically influential zealots say small governments with small budgets and limited powers are the most desirable.

The prior three annual reports focused exclusively on transportation, and in 2010, the sequel included blunt statements to encourage the updating of America's transportation infrastructure with high speed rail transport in selected high population density areas.

The report makes a strong case for water and land conservation and adequate transportation as the key to livable high density cities. It envisions high speed hubs in several geographical areas in the U.S., with one network spanning the east coast from Miami and Tampa-Orlando to Boston. A parallel branch would link the Atlanta area and Piedmont sections with the Northeast.

At the other end of the scale, the report has a long and detailed section about enhancing transportation in urban and sub-

urban areas, breaking, or at least significantly reducing our dependence on the automobile.

The U.S.' international economic status as a justification to make the necessary investments in water and transportation infrastructure is a third critical focus interwoven throughout this year's report because these two infrastructure elements are key to food production, industrial competitiveness and economic security.

The report's writers say that both Europe and some Asian countries lead the U.S. in infrastructure investment and suggest both are taking the lead economically. Europe in particular has invested in clean water technologies and mass transit, contributing to their economic growth.

The report explores tightly connected relationships between environmental resources, the technological infrastructure that exploits them for human use, and the economy, which mediates availability among society members.

One conclusion in the report is that American society is not so post-industrial that it can neglect its fundamental resource base that presently is used at, or beyond, its limit. The result will be loss of economic leadership that the U.S. built over the last century.

SUGAR

From Page 1

certain CWA requirements.

"This ruling destroys farmers' property rights in Florida, and in every state in the nation," she said.

She said the corps tried to secretly change public policy with an internal memo.

"They failed to follow any of the requirements for agency rulemaking and never provided the required public notice of a policy change nor the opportunity to provide comment."

The American Farm Bureau Federation has joined the lawsuit. It filed an action against the corps for what the organization calls another example of regulatory overreach.

The suit takes the corps to task for non-compliance with its own rules regarding prior converted croplands.

The suit argues that recent action by the corps goes against the 1993 rule that excluded prior converted croplands from regulation under the Clean Water Act. The corps' actions would subject croplands to federal control if farmers take their prior converted cropland out of crop production and change its use.

"These lands are out of the realm of Clean Water Act jurisdiction, meaning the corps can't regulate them as waters of the U.S.," said AFBF President Bob Stallman.

"This is important because of the value of prior converted croplands is significantly higher than land encumbered by costly federal wetlands regulations."

He said the corps is trying to arbitrarily change the rules of the game, which would have major impacts on producers' land values and property rights.

Corps officials would not comment because of the lawsuits that have been filed. Environmentalists, however, were eager to speak out about the suits.

They believe the wetland permits are needed because the 700,000-acre Everglades Agricultural Area requires the use of pumps, locks, levees and drainage canals to keep it dry. The corps believes that without active drainage, the land would revert to wetlands.

Eric Draper, lobbyist for Audubon of Florida, called the lawsuit unfortunate.

"The wetlands in the Everglades Agricultural Area are clearly jurisdictional wetlands," he said. "They are a navigable waterway. It has always been the intent of the Clean Water Act that navigable waterways be protected."

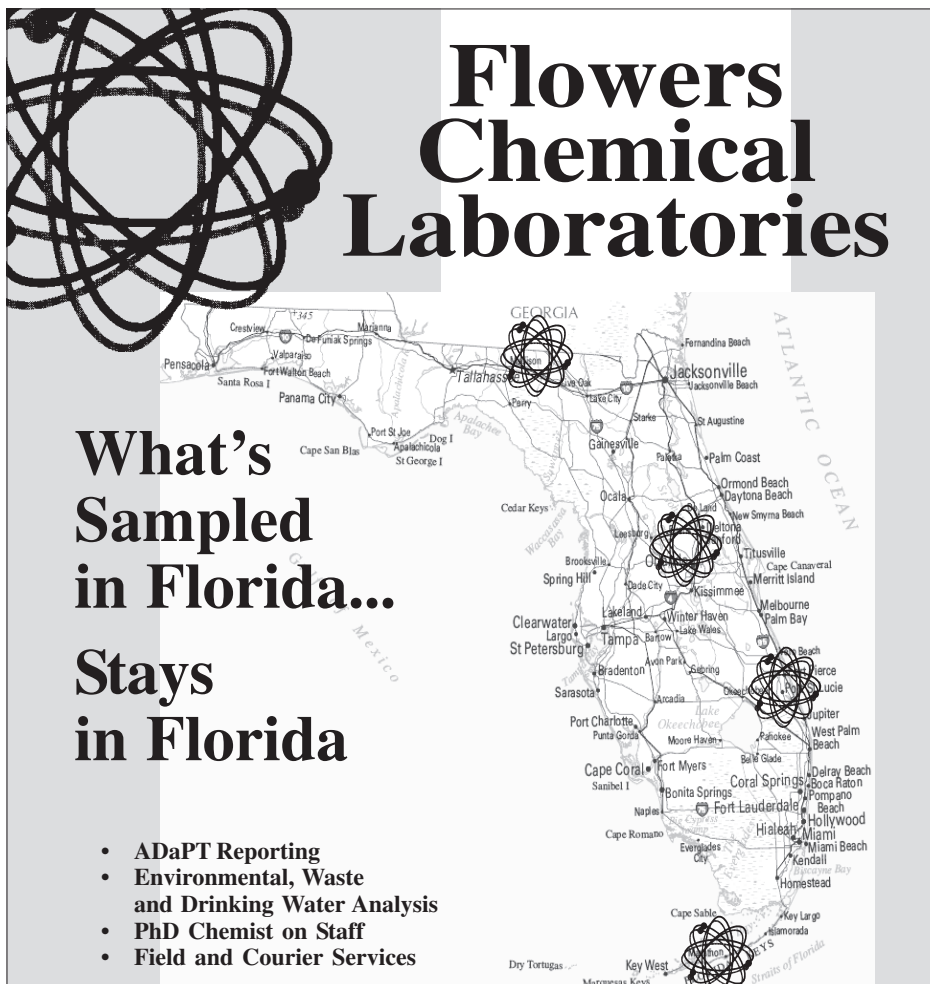
"The companies are simply defending their interests. They are protecting their ability to develop an area that never should be developed. These companies should have to mitigate for the impact of development on wetlands."



THINKING MORE INNOVATIVELY

AECOM...Enhancing the world's built, natural and social environments.

www.aecom.com **AECOM**



Flowers Chemical Laboratories

What's Sampled in Florida... Stays in Florida

- ADaPT Reporting
- Environmental, Waste and Drinking Water Analysis
- PhD Chemist on Staff
- Field and Courier Services

Visit our Florida facilities in Altamonte Springs, Port St. Lucie, Madison, and Marathon Key

For all your drinking water and wastewater analytical testing, call John W. Lindsey, Jr. Cell: 863-412-3950 Office: 407-339-5984, ext. 217

For all your environmental analytical testing, call Abby Still. Cell: 407-310-1658, Office: 407-339-5984, ext. 216

52 years of service to the environmental industry

FLOWERS CHEMICAL LABORATORIES

407-339-5984 1-800-669-LABS
www.flowerslabs.com

Check out our NEW WEBSITE to apply

&Aerobic Bioremediation of BTEX, TPH, MTBE, etc.
Anaerobic Reductive Dechlorination of PCE, TCE, etc.
Surfactant Recirculation for Enhanced Free Product Recovery

Our amendments and in situ remediation equipment help you:

- ✓ Achieve cleanup milestones faster
- ✓ Maximize hydraulic control & capture of groundwater plumes
- ✓ Deliver large quantities of dissolved oxygen or anaerobic substrates to the subsurface



ETEC offers Performance-Based Cleanup terms that guarantee remediation results!

Apply effective Biological Amendments to Enhance what you're already doing!

Source Removals/Excavations	Air Sparge/SVE Systems
Multi-phase Extraction Systems	Biosparge Systems

Accepted by FDEP for In Situ Application

ETEC LLC Environmental Technologies www.etccllc.com

ETEC Contact: Brian Timmins 971-222-3616 brian@etccllc.com

Florida Contact: Petro-Chem Env. Systems Don Schurr 813-972-1331 don@petro-chem.net

Orlando embarks on large-scale wastewater system upgrades

By MELORA GRATIAN

From improving pipelines, pumps, lift stations and treatment plants to developing an alternative process for biosolids treatment and disposal, the wastewater system in Orlando is primed for a massive five-year make-over slated to start in 2011.

The \$144.4 million in improvements includes \$6.8 million for pipeline replacement and rehabilitation; \$18.4 million for lift station projects that entail mainly rehabilitating the existing ones; and \$24.7 million for improvements at two of the three treatment plants, with the majority going to the Conserv II facility.

"A lot of what we need to do involves basic upgrades, adding more capacity and maintaining or replacing aging infrastructure," said Vic Godlewski, manager of the city's wastewater division.

"We have components that are over 50 years of age and it has been 25 years since we last rehabilitated it. In some ways, we are dealing with components that are reaching the end of their useful life," he said.

For instance, the city has decided to replace pumps that are more than 25 years old and have been rebuilt several times.

Another large chunk of the money will go toward biosolids treatment—about \$26.5 million at the Iron Bridge reclamation facility and \$32 million for Conserv II.

"Biosolids treatment is a big area of concentration for us with the main objective of replacing our main method of disposal, which is land application," Godlewski said.

Land application sites are getting harder to find, more costly with higher handling costs, and are becoming less acceptable to the public, he said. Furthermore, they are viewed as an environmental liability for long-term water supplies, regardless of

treatment, due to issues such as water table and wet weather. The city wants to reduce this liability and cut back on operating costs.

"The ideal solids management system would include low cost solids disposal with minimal treatment and limited recycle streams without a high nutrient load," according to a city facilities plan.

Numerous existing sludge handling practices were evaluated and deemed not viable. These practices include dewatering with lime stabilization, anaerobic digestion with dewatering, auto-heated thermophilic aerobic digestion, composting and chlorine dioxide.

Instead, the city is pilot testing a new process called Super Critical Water Oxidation. The process involves the use of supercritical water as the medium for oxidation. The pressurized influent sludge is heated to between 275 and 330 degrees Celsius.

This self-sustaining reaction raises the water temperature above critical levels resulting in conditions that achieve a high efficiency of sludge destruction.

SCWO can dissolve and sustain oxidation of organics in the sludge "with near perfect efficiency (more than 99.99 percent) in very short time frames (less than one

minute)," said the facilities plan.

It is comparable to incineration and produces a gas stream and effluent liquid. The gas contains CO₂ that can be recovered, as well as small amounts of N₂O and H₂O.

The inorganic solids—including silica, alumina, heavy metals and insoluble salts—can be separated from the water for landfill disposal. The leftover water can be recycled for use in the treatment plant.

"The short (description) of this process is that material is burned and creates by-products of combustion and heat; and CO₂

is recoverable to create steam and produce energy," said Godlewski. "We would like to convert the sludge to useful by-products and possibly generate power."

The pilot testing is producing positive results, and officials hope the SCWO process can be implemented full scale at both Iron Bridge and Conserv II in the near future.

The city has applied for financial assistance for these projects from a state revolving loan fund and hope to qualify. Other revenue sources include bonds and cash reserves.

Howie-in-the-Hills to update drinking water system

By ROY LAUGHLIN

The Howie-in-the-Hills' City Council approved expenditure of up to \$2 million to upgrade and modify its drinking water system. The council decision approved a plan that will replace aging components of its water supply system and provide reserve capacity.

Brenda Brasher, city clerk for Howie-in-the-Hills, said the water system's planned upgrades will address two problems. The first will be replacement of an 80-year-old elevated water tank at the Grant Avenue plant with a larger concrete tank on the ground.

The older tank is usable, but its age makes it significantly vulnerable to hurricane damage. Should the elevated tank be damaged by any cause, it could seriously affect water delivery to the system's customers.

The second major upgrade is the drilling of a third supply well. At this point, the city has two wells, one of which is on Florida Department of Transportation land. They city has a long term lease for use of the land as a well site. It has had a well on the site for about 30 years.

If DOT needs the land for future highway expansion, the well site lease may not be renewed. By drilling a third well now on its own property, the city will have less concern about lease renewal for the well.

The proposed plan also includes construction of a security fence around the well and pump sites, and demolition and replacement of the pump houses.

Brasher said the project is very much in a "pre-construction phase." The city will need to apply for permits from the Florida Department of Environmental Protection and St. Johns River Water Management District.

With those permits in hand, it will apply to the state for a revolving fund loan to finance construction. Financing approval is not taken for granted.

We are branching out ...





PDS is pleased to announce the opening of our new office in Live Oak, FL.

Serving Northern Florida and Southern Georgia with a new Geoprobe 7822DT and Diedrich D50 Turbo Plus Drill Rig.

Preferred Drilling Solutions, Inc.
11747 87th St. North, Largo, FL 33773
Phone: 727-561-7477 • Fax: 727-561-9028
www.pdsflorida.com

Branch offices in Live Oak and Lakeland, FL

The Clark Advantage:



- **Two FDEP permitted & CERCLA approved facilities: Thermal Treatment & Waste Processing/Solidification**
- **Thermal treatment of petroleum soils & sludges in bulk & drums**
- **Disposal of hazardous/non-hazardous materials & waste**
- **Rolloff & Vac Truck Services**
- **LTL drum service - 2 hr. window, liftgate, manifests & labels. Environmental Engineers love this service!**
- **Woman-Owned Small Business, DBE & MBE Certified**
- **Exceptional Customer Care**

Clark ENVIRONMENTAL

**Phone: (800) 276-2187
Fax: (863) 425-2854
www.ThermalTreatment.com**



MARINCO BIOASSAY LABORATORY
The Aquatic Toxicology Specialists

4569 Samuel Street
Sarasota, FL 34233
TEL: (941) 925-3594
FAX: (941) 922-3874
www.biologylab.com

NPDES Toxicity Testing
NELAC/P Accredited #E84191
Samples Accepted 7 Days a Week
Dedicated Support Representatives

We are the only toxicity testing laboratory in Florida to exclusively use in-house cultures. That translates into low stress test organisms and more reliable results for our clients.

Call 1-800-889-0384



Plants have a natural ability to take up and store nutrients... We've come up with an affordable way to take advantage of that!



Beemats



Our product is a Floating Wetland designed as a **Managed Aquatic Plant System**. We use plants, suspended by mats, to reduce the excess nutrients found in water. The key to our system is the ease of management. Our plants are easily removed and replaced on a routine basis to increase nutrient uptake. By removing the plants before senescence, we assure the nutrients cannot return to the water. The mats, and all the other hard materials that go into our system, can be reused and replanted to continue the process year after year. Call for pricing!

Beemats LLC
3637 State Road 44
New Smyrna Beach, FL 32168
Ph (386) 428-8578
Fax (386) 428-8879
www.beemats.com
beemats@gmail.com

Residents near Gainesville Cabot/Koppers Superfund site file lawsuit

By PRAKASH GANDHI

Three companies responsible for cleaning up a Superfund site in Gainesville are the target of a major new lawsuit filed by nearby residents. The homeowners living near the Cabot/Koppers Superfund site want at least \$500 million to decontaminate their homes and monitor their health.

The suit does not seek damages for current or past illnesses. But it does ask for money to pay for decontaminating homes and to fund a program to check the

health of residents in future years.

The Cabot/Koppers Superfund site covers about 140 acres near downtown Gainesville. For decades, the industrial site was home to wood-treating and charcoal production plants.

The site covers about 140 acres bridging two properties. It is comprised of two sites: the Koppers portion which covers 90 acres on the western side, and the Cabot Carbon portion covering 50 acres on the eastern side.

A wood-treating operation on the Koppers portion of the site was active for

many years. Cabot Carbon formerly operated a charcoal production operation on the Cabot Carbon portion. This part has been redeveloped and currently contains a commercial shopping mall, car dealership and a series of smaller stores and businesses.

In 1984, the U.S. Environmental Protection Area designated the area as a Superfund site. EPA says that poor waste handling practices in the past have contaminated groundwater, soil and possibly off-site surface water.

Contaminants include arsenic, polycyclic aromatic hydrocarbons and creosote compounds.

Cleanup on the site began in 1985 and is still ongoing. An EPA report on the cleanup process is due this year.

Two potentially responsible parties are funding the current cleanup: Beazer East Inc. is the PRP for the Koppers portion of site; Cabot Corp. is the PRP for the Cabot Carbon portion. Both parties have conducted investigations and have completed several cleanup actions. Koppers Inc. is the third company named in the suit.

In the lawsuit, more than a half-dozen plaintiffs claim toxins from the site have contaminated their homes within a two-mile radius of the property.

The lawsuit claims the chemicals are creating an "elevated risk of contracting serious latent diseases, disorders and harm to the physical health and well-being" of the residents. In addition, the complaint claims the contamination has caused home values to fall sharply.

Attorneys for the residents did not return repeated calls for comment about the lawsuit.

The EPA says it has spent about \$4 million to date on the site. In 2001, the agency developed an amended remedial plan for the site in a draft record of decision that assumed contaminants in the soil at the site would not leach into the Floridan Aquifer.

But later testing at the site confirmed that significant levels of dissolved contaminants had migrated into the deeper zones

of the intermediate Hawthorn Group formation and the Floridan Aquifer.

The aquifer serves as the source of drinking water for more than 175,000 people in Alachua County.

Scott Miller, remedial project manager at EPA Region IV in Atlanta, said that additional groundwater extraction wells are being installed. Off-site soil sampling is ongoing.

Miller would not comment on the lawsuit, but said the agency is doing its best to make sure the drinking water is safe.

"We are committed to meeting drinking water standards within 15 years," he said.

"Contamination was found deeper in the aquifer than initially thought, so that required us to dig deeper monitoring wells which delayed the work and increased the cost."

Miller said there have not been exceedences of contamination in the drinking water wells near the site.

Worried residents say they thought the contamination was limited to outside their homes in the area's water and soils. But private tests completed in February show the toxins have gathered in dust and sediment in their houses, say the homeowners.

Gainesville officials say the city has spent about \$2 million so far to study the extent of water contamination to the region's underground aquifer. In addition, Alachua County received about \$108,000 from EPA to conduct a sediment and stormwater sampling study to address community concerns related to stormwater runoff and creek contamination.

Officials with Gainesville Regional Utilities would not comment on the lawsuit. "We have nothing to do with that," said Ron Herget, director of water and wastewater engineering for GRU. "We are not a party to the lawsuit."

"The utility is concerned with the groundwater. Our focus is to make sure the PRPs clean up their property so the seepage does not affect the groundwater. It's been a long haul. It's been many years of work with EPA and DEP and others—lots of stakeholders and players," he said.

Carbon Service & Equipment Co.



- Quality carbon and multi-media products
- Purchase & rental of remediation equipment and systems including installation & setup
- Turn-key non-hazardous & hazardous on-site spent carbon and multi-media change out services
- Reactivation of spent carbon

Servicing sites throughout Florida and the U.S.

** CSEC Florida Office **
Jennifer Lalli Belmore
jbelmore@carbonservice.net
Phone: 407-313-9113 • Fax: 407-313-9114

** CSEC Southeastern Office **
H.W. Harter III
hwharter@carbonservice.net
Phone: 803-447-0888 • Fax: 803-791-6090

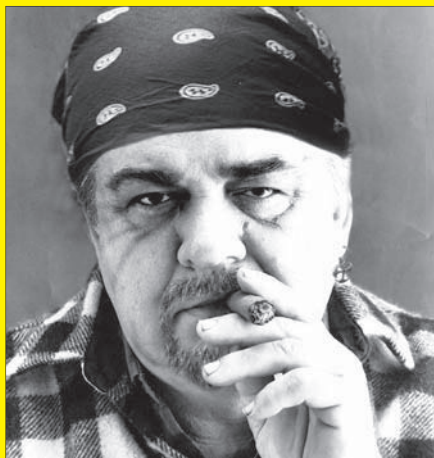
WHICH CONTRACTOR would you choose to remediate your property?



- Top-rated liability insurance
- Cross trained and fully certified
- Years in business: 30
- Safety *beyond compliance*

There's really no comparison.

For a REAL expert, call MARCOR's SE Regional Office at 813-749-8628.
We specialize in hurricane preparation & recovery operations!



the competition

- Insufficient liability insurance
- No formal training
- Years in business: 6 months
- Safety? I've got a *bandana* on!

Study indicates effectiveness of Type 2 baffle boxes for pollutant removal

By GORDON ENGLAND

Significant effort has been made to characterize solids removal by stormwater treatment devices. However, an approach is lacking that can unify the disparate components of stormwater solids into an integrated monitoring and evaluation framework.

A number of factors hamper this effort, including, among others, variable flow rates, and stormwater solids' mass and composition variances.

Stormwater treatment systems vary significantly in their design and configuration, and differential retention of solids components occurs at different flow rates. High flow rates can scour and remove previously deposited solids.

These factors make it difficult to develop standardized monitoring protocols that represent solids content across the entire range of solids size and density.

In 2005, Sarasota County engaged GPI Southeast in Tampa to determine the pollutant removal effectiveness of Type 1 baffle boxes with no horizontal screens and Type 2 baffle boxes that have horizontal screens to filter gross solids, keeping organic debris dry and preventing the leaching of nutrients into the water-filled vault below.

The study, finalized this year, was funded by the Florida Department of Environmental Protection.

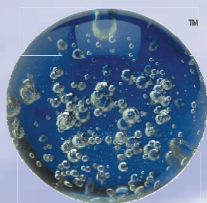
Historically, monitoring was performed using autosamplers or grab samples on the water column only. However, autosamplers are ineffective in collecting and measuring organic debris and suspended solids greater than 75 microns typically found in stormwater.

A methodology for long-term continuous mass monitoring was developed to measure removal of stormwater sediment, total nitrogen and total phosphorus by baffle boxes at four field locations in Rockledge, Stuart and Sarasota.

Monitoring methods included the use

STUDY
Continued on Page 9

IS YOUR WATERWAY D.O. IMPAIRED?



- Maintains Existing Stratification
- Prohibits Iron & Manganese Release
- Prevents the Formation of H₂S
- Advanced Pure Oxygen System
90-95% Absorption Efficiency

TO LEARN MORE ABOUT ECO2 VISIT US ON THE WEB:
WWW.ECO2TECH.COM
OR CONTACT US AT (317) 706-6484

D.O. SUPPLEMENTATION FOR IMPAIRED LAKES, RIVERS, & RESERVOIRS

Analytical chemistry support for Gulf spill requires specialized techniques

By JEFF CHRISTIAN

The recent explosion of an oil drilling rig 50 miles off the Louisiana coast and the subsequent massive oil leak is expected to have substantial impacts on the environment. At the current rate, the spill is expected to surpass the 11 million gallons spilled in the 1989 Exxon Valdez disaster.

Deep Horizon Oil Spill First in a series of columns

Various investigations, monitoring activities, damage assessments and other related studies will be occurring for many years as a result of this massive spill.

From an analytical chemistry standpoint, several relatively specialized procedures will be required to assure detectable contaminants originated from this spill.

In addition, a certain amount of standardization between all laboratories performing testing will be necessary to assure comparable data.

The key procedures that will be used for much of the testing are briefly described in the following comments.

Alkylated polycyclic aromatic hydrocarbons

Trace level determinations of alkylated PAHs will be performed. This analysis is typically performed using gas chromatography/mass spectrometry operated in the selective ion monitoring mode. Samples are solvent-extracted and subjected to clean-ups via silica gel to remove interfering matrix components.

The SIM mode is used to further improve selectivity, but also increases sensitivity. Typical reporting limits for aqueous samples are in 10-20 ng/L range, for sediment 0.5-5 ng/g range, and for tissue 0.5-5 ng/g range.

The inclusion of alkylated homologs is critical to the forensic aspect of the determinations, which provides the connection to the source oil that was spilled.

The ratios of the various PAHs with substituted low molecular weight alkyl groups provide unique chemical characteristics that relate to the source of the petroleum material.

Petroleum hydrocarbons

The PHC analysis, including alkane fraction analysis and forensic approaches, will typically be performed via solvent extrac-

tion followed by gas chromatography/flame ionization detection. The determinations will generally require a more complex approach than a routine diesel or residual range determination because of the need for forensic evaluation of the results.

The routine PHC chromatogram (i.e. DRO/RRO) provides a fingerprint useful in tracing the source. The simplified procedure will be beneficial during cleanup of more highly contaminated areas.

Calibrations for determinations where pattern recognition and quantification are used will require source oil as standards. In addition, speciated hydrocarbon analyses (delineated via alkane markers) will help from a forensic standpoint.

Certain other hydrocarbons serve as biomarkers (unique to the source of the oil). Biomarkers might include compounds such as pristane, phytane, retene and hopane.

Again, the presence and ratio of biomarkers aid in the identification of the source of the oil.

Volatile organic compounds

For much of the testing, relatively routine determinations for benzene, toluene, ethylbenzene and xylenes will be used quite extensively.

In addition, extended lists of VOCs will be necessary for in-depth forensic work. The additional lists might include various alkylated benzenes, branched alkanes, alkenes, alkynes, etc. In general, compounds in the C5 to C13 range are included in the parameter list.

Dispersants

Thus far, the most widely used dispersants have been Corexit 9527 and Corexit 9500 (both trade names for commercially available dispersants). Several analytical approaches have been identified for the detection of these dispersants, but they are not selective to the specific active ingredient, which essentially eliminates the ability to trace the source of the material.

General procedures exist for detection of anionic surfactants in aqueous samples, but do not assure the detectable compound(s) originated from a specific product such as Corexit 9500 or 9527.

Thus, a selective procedure will be necessary to correctly identify the specific dispersant.

of nutrients entering water bodies.

This research also exemplified the importance of installing BMPs that filter gross solids to keep organic debris dry, preventing leaching of nutrients into waterbodies.

This type of BMP is used as a first component in a treatment train to increase pollutant removals over a standard BMP such as a wet detention pond.

The report is available at <http://www.stormwatersolutionsinc.com/papers.html>.

Gordon England, PE, DWRE, is president of Stormwater Solutions Inc. in Cocoa Beach. He can be reached at gengland@stormwatersolutionsinc.com.

LID

From Page 1

They plan to hire a technical consultant for other areas such as stormwater harvesting, bioharvesting, taking into account the local hydrology and rainfall, and customizing BMPs.

The initial focus will be on minimizing site disturbance, biofiltration, bioretention, pervious pavements and designs for swales, sidewalks and right-of-ways.

"We have to work with utilities, and we don't want to lose sight of promoting stormwater reuse or harvesting," Seibold said. "We have to take into account our high water table and soil, but I think biofiltration and bioretention can be used in the area. In commercial applications, we can have green roofs, rainwater harvesting and pervious pavement as we develop it down the road."

The state also is encouraging, but not mandating, LID in a draft version of new stormwater rules.

Development of analytical procedures has commenced for selective and sensitive determinations using appropriate chemical separations followed by liquid chromatography/mass spectrometry/mass spectrometry.

As noted in the brief descriptions of the various procedures that will be important during the activities associated with cleanup and assessment of the spill, specialized techniques will be necessary to complete the various tasks.

Considering the potential size of the da-

tabase that will be generated, an important consideration should be comparability of data. For each of the general categories of analysis, numerous iterations of methodologies exist between laboratories. The result will be data of limited value when attempting to make comparisons.

Thus, clear and concise protocol need to be established to assure that usable data is generated.

Jeff Christian is chief operating officer for Columbia Analytical Services Inc. He can be reached at jchristian@caslab.com.

ZEBRA Environmental Corp.

Subsurface Sampling, Injection, and Data Collection for Environmental Professionals Since 1992



- > Real-time lithology & VOC logging with MIP
- > Real-time Core Penetrometer Logging with CPT or CPT/MIP for Soil Stratigraphy & VOC logging
- > Installation of Monitoring Wells, 2" Prepacks & CMT Multi-level System
- > Complete Bioremediation & Chem Ox Injection Services
- > Soil Vapor Intrusion Investigations
- > Geoprobe Subsurface Soil and Groundwater Sampling

ZEBRA- Florida

1020 S. 82nd St.
Tampa, FL 33619
P: (813) 626-1717

ZEBRA- North Carolina

4205 Newington Hills Way
Cary, NC 27513
P: (919) 424-6122

Go to www.teamzebra.com for more information

A003092010

STUDY

From Page 8

of autosamplers, flow meters and event mean concentrations for measuring water column pollutants.

A customized testing device enabled the collection of gross solids bypassing a baffle box, enabling the calculation of a 99 percent gross solid removal efficiency.

Lab analysis of representative soil and organic debris samples gave removal masses of total phosphorus and total nitrogen from the gross solids components.


Continuous flow measurements over a two-year period were coupled with masses of sediments collected in the wet vault and masses of organic debris trapped in the screens, allowing the calculation of a mass removal efficiency for sediment, TP, TN and 11 other pollutants.

The results showed that on a mass removal basis, Type 2 boxes removed 19 percent of TN, 15.5 percent of TP, and 67.2 percent of sediment, while removals with Type 1 baffle boxes were 2.3 percent for TP, 0.5 percent for TN, and 19.9 percent for sediment.


Traditional event mean concentration calculations showed significantly lower removal rates than mass removal calculations.

Data from this research indicated that in watersheds with greater than 43 percent tree canopy coverage, leaves contributed an order of magnitude greater TP and TN pollutant loadings than what was measured in the water column. In those basins, leaf masses were the major source of nutrients entering stormwater.

These results show that measurement of organic debris in stormwater is necessary to obtain an accurate determination




ST. JOHNS RIVERKEEPER®



The St. Johns Riverkeeper
Neil Armingeon

"The people who are working against us and our efforts to protect the St. Johns are the same people working to weaken enforcement, rob the Inland Protection Trust Fund, and ease regulations. They're working against all of our interests."




PROTECTION AND ENFORCEMENT

GOOD FOR OUR RIVER.

GOOD FOR YOUR BUSINESS.

ST. JOHNS RIVERKEEPER

FOR THE RIVER. BY THE PEOPLE.



JOIN
ST. JOHNS RIVERKEEPER®
stjohnsriverkeeper.org/join

Hometown Democracy: Growth management by the people or a disaster waiting to happen?

By JOHN J. FUMERO, ESQ and
THOMAS F. MULLIN, ESQ

Chances are, the proposed Amendment 4 to the Florida Constitution (“Hometown Democracy” or “HTD”) will affect you either personally or professionally. Despite its rocky beginnings, the fate of HTD and possibly the future growth of the state will be put to a vote by Floridians on Nov. 2, 2010.

Florida Hometown Democracy, the nonpartisan political action committee sponsoring HTD, promotes it as the solution to Florida’s ailing economic condition by empowering the state’s residents with a vote over all amendments to local government’s comprehensive plans. Supporters of HTD cite the numerous public corruption cases that have arisen over the past several years as proof that Floridians need a greater say over the land use decisions made by their locally elected representatives.

Opponents of HTD admit that Florida’s growth management process can and should be improved. They say, however, that HTD is a knee-jerk reaction that does not properly address the real life problems. Instead, HTD could dramatically and detrimentally undermine true reasoned growth management while causing significantly more.

This column will survey both points of view on HTD and provide commentary on the practical impacts and unintended consequences should HTD pass. Additionally, we will look into the current situation in the town of St. Pete Beach that has enacted its own version of HTD.

What is Hometown Democracy?

What is HTD and what is it intended to accomplish? As proposed, HTD would amend the state’s constitution to require that any amendment to a local government’s comprehensive land use plan be approved by a referendum of voters after the regular approval process has been followed.

HTD defines the term “local government comprehensive land use plan” as “a plan to guide and control future land development in an area under the jurisdiction of a local government.” Arguably, this could apply to the entire local government’s comprehensive plan, and not just its future land use element. It appears that the process for seeking approvals for rezonings, site plans, environmental permits and variances would be unaffected.

Supporters of Hometown Democracy

HTD supporters believe that HTD will prevent urban sprawl, protect the environment, save tax payer dollars and stop unwanted development. They also believe that the economic downturn felt so especially strong in Florida is a result of poor land use decisions by local politicians and developers.

Lesley Blackner, a land use attorney and a cofounder of Florida Hometown Democracy, suggests that placing the responsibility for local land use decisions with the residents, and not with the politicians, is the cure to the state’s economic condition. Developers “control the politics of Florida from the governor on down,” she stated.

The process by which developers, property owners and the local governments themselves must follow to seek approval of a comprehensive plan amendment will, in theory, remain intact following passage of HTD. The only change will be, at the end of the process, the decisions of elected local officials on the comprehensive plan amendments will be subject to review by the voters.

Florida has a complex, elaborate and, at times, cumbersome system for determining future land uses based on economic, environmental, planning and other considerations that should be based on actual science and data. Supporters believe the wealth of technical information prepared as part of the comprehensive plan amendment process will have enhanced value as it will also be placed before the public for their review and thoughtful consideration.

HTD supporters believe that a second, and final, look at land use changes by the public is a useful and positive addition to our present land use planning laws and procedures.

The primary arguments put forward by Florida Hometown Democracy in favor of HTD include:

- Hometown Democracy will give residents a voice over land use planning decisions. HTD supporters state that the amendment will put the power back in the voter’s hands and that local politicians will no longer be able to make decisions based on the desires of their campaign contributors, developers and big businesses.

- Development and smart growth will continue under the existing comprehensive plans. Local governments’ comprehensive plans were written to provide for growth, so even if the plans are not changed, plenty of growth and construction can continue. During the development boom period, large tracts of vacant land were approved for new projects. That land can be developed first and, when needed, the voters will decide which plans allow additional growth.

- Special interests already control growth management. Florida Hometown Democracy argues that developers already control the decisions of local politicians and representative democracy is not working.

The reasons against Hometown Democracy

Opponents of HTD fear the measure will significantly impact revenue and jobs at a time when the state and local governments are struggling to meet budgets. Further, opponents argue that it will make land use decisions even more political as developers and property owners will spend even more money on advertising and marketing prior to elections on the comprehensive plan amendments.

Opponents state that the public will be inundated with 30-second television commercials both for and against the proposed amendments. They argue that the public is included in such decisions through the public hearing process required by Florida Statute and that the general public will not have the analytical ability to understand the technical data and the analysis that accompanies it.

While the focus of the supporters of HTD has been on growth management and the corruption charges and easily-influenced local politicians, critics state that the language of HTD is too broad and its scope exceeds the initiative’s intent. They argue that potentially HTD could apply to zoning approvals unrelated to comprehensive plan amendments. HTD will confuse unsophisticated smaller local governments on how to implement its directives.

Moreover, the language requires a vote on every minor and technical plan change, even if unrelated to a development plan, such as local government’s amendments in response to Evaluation and Appraisal Reports from the Florida Department of Community Affairs. The idea is that not only will development be affected, but comprehensive plans for new schools, hospitals, fire stations, community centers and public parks could all be held until the next scheduled public election.

The most practical implications of HTD implementation are noteworthy. For instance, most voters, without having a background in land use and planning, are not familiar with their local government’s comprehensive plan. These voters will be faced with ballot language and associated data and analysis that are hard to comprehend.

The most dramatic criticism of HTD is the estimated 267,247 jobs that would be lost by the passage of HTD. The Washington Economics Group Inc. was retained to study the economic impact that HTD could have on the state. Under the WEG’s “Most Likely Scenario,” it was assumed that 25 percent of new real estate related expansion would require a comprehensive plan amendment. The impacts associated with the Most Likely Scenario includes the loss of 267,247 jobs, of which 38 percent were estimated in the construction sector, 34 percent were in the knowledge-based services sector, and the remaining 28 percent were distributed among other economic sectors of the Florida economy.

The WEG study concluded that “(HTD)’s passage will have potentially devastating consequences to Florida’s economy at a time when the economic situation at both the state and national levels is uncertain and at a time when attracting new businesses to Florida is essential for the future recovery and prosperity of the state and its residents.”

Backed by the Florida Chamber of Commerce, the group Floridians for Smarter Growth has stepped up against Florida Hometown Democracy. Some of the other primary criticisms of HTD cited by FSG include:

- Increased taxes. The cost of special elections for the larger cities in Florida could run as much as \$120,000 to \$300,000—the cost of which would be covered by taxes to the residents.

- Businesses will choose to locate in other states. Businesses in new industries, such as biotechnology, will select locations out of state as the comprehensive plans of

GROWTH
Continued on Page 13

Petroleum cleanup funding: Education, diligence pay dividends during 2010 legislative session

By GLENN MacGRAW, PG

After last year’s legislative session ended with a \$90 million dollar bond to fund the petroleum cleanup program—and with the reported state revenue deficit approaching three billion dollars—we all knew it would be a battle this year to properly fund the petroleum program.

The battle was waged primarily by the Florida Petroleum Marketers and Convenience Store Association. The effort was also supported by both the Florida Ground Water Association and the Florida Association of Professional Geologists.

Soon after last year’s session, a group of affected parties met with Senate President Jeff Atwater. This meeting, which I attended, gave us a lot of insight into not only what had happened the previous year, but what it would take to be successful in securing funding for this year (FY2010-2011). We knew we had our work cut out for us.

The environmental consultants that were part of the FPMA met and produced some known petroleum contamination maps which were overlaid on the modeled draw-down of pumping wells in the area. The maps painted a graphic picture of the density of petroleum contaminated sites in Florida. This information was given to many of the legislators in meetings to help them visualize the extent of the problem right in their own districts.

These meetings, along with continuing discussions with legislative leaders in the House and Senate, were key in bringing added attention to our issues.

We then started working on rule changes in conjunction with the Florida Department of Environmental Protection. House Bill 1385/Senate Bill 2592 were created which had the following provisions:

- The bill allows the DEP to establish a long-term natural attenuation monitoring category for sites in the petroleum cleanup program. The DEP is required to utilize natural attenuation monitoring strategies and, when cost-effective, transition sites eligible for restoration funding

assistance to long-term natural attenuation monitoring where a site meets certain criteria.

- The bill requires DEP to evaluate whether higher natural attenuation default concentrations for natural attenuation monitoring or long-term natural attenuation monitoring are cost-effective and will adequately protect public health and the environment. DEP must also evaluate site-specific characteristics that will allow for higher natural attenuation or long-term natural attenuation concentration levels.

- A local government may not deny a building permit based solely on the presence of petroleum contamination for any construction, repairs or renovations performed in conjunction with tank upgrade activities to an existing retail fuel facility if the facility was fully operational before the building permit was requested and if the construction, repair or renovation is performed by a licensed contractor.

- The bill establishes a low-scored site initiative for sites with a priority ranking score of 10 points or less and provides conditions for voluntary participation. If these conditions are met, DEP must issue a No Further Action order, which means minimal contamination exists on-site and that contamination is not a threat to human health or the environment. If no contamination is detected, DEP may issue a Site Rehabilitation Completion Order.

Sites that are eligible will be initiated by the source property owner or responsible party for the contamination and are strictly voluntarily. DEP may pre-approve the cost of the assessment pursuant to Section 376.30711, F.S., including six months of groundwater monitoring, not to exceed \$30,000 for each site. DEP may not pay the costs associated with the establishment of institutional or engineering controls. Assessment work must be completed no later than six months after DEP issues its approval.

- The bill authorizes DEP to spend no more than \$10 million per fiscal year from the funds currently authorized

MacGRAW
Continued on Page 14

Florida Specifier

P.O. Box 2175
Goldenrod, FL 32733

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

We welcome columns, articles and letters to the editor on any subject or issue pertinent to the environmental, regulatory and technical areas we cover.

We reserve the right to edit all submissions for newspaper style and publish submissions on a space-available basis.

The views expressed in columns authored by industry professionals are their own.

Calendar

June

JUNE 7-9—Course: Asbestos: Inspector, Gainesville, FL. Presented by the University of Florida TREEO Center. Call (352) 392-9570 or visit www.treeco.ufl.edu.

JUNE 8—Course: Permit Required Confined Space Entry, Gainesville, FL. Presented by the University of Florida TREEO Center. Call (352) 392-9570 or visit www.treeco.ufl.edu.

JUNE 9—Course: Excavation and Trenching: Competent Person Training, Gainesville, FL. Presented by the University of Florida TREEO Center. Call (352) 392-9570 or visit www.treeco.ufl.edu.

JUNE 9—Course: Laws and Rules for Florida Engineers, Jupiter Beach, FL. Presented by the University of Florida TREEO Center. Call (352) 392-9570 or visit www.treeco.ufl.edu.

JUNE 9-11—Conference: Florida Stormwater Association Annual Conference: Keeping Pace with New Water Quality Strategies, Sanibel Harbour Marriott, Fort Myers, FL. Call 1-888-331-3124 or visit www.florida-stormwater.org.

JUNE 9-11—Conference: 2010 FAWQC Conference- Liquid Assets: The Future of Natural Resource Management in Florida, Naples, FL. Presented by the Florida Association for Water Quality Control. Call (813) 623-6646 or visit www.fawqc.com.

JUNE 10—Course: Water Distribution System Security, Tallahassee, FL. Presented by the University of Florida TREEO Center. Call (352) 392-9570 or visit www.treeco.ufl.edu.

JUNE 10-11—Course: Asbestos: Management Planner, Gainesville, FL. Presented by the University of Florida TREEO Center. Call (352) 392-9570 or visit www.treeco.ufl.edu.

JUNE 13-16—Symposium: 2010 Spring Symposium of the Southeast Desalting Association, South Seas Island Resort, Captiva Island, FL. Call (772) 781-7698 or visit www.southeastdesalting.com.

JUNE 14—Course: Heavy Equipment Safety, Gainesville, FL. Presented by the University of Florida TREEO Center. Call (352) 392-9570 or visit www.treeco.ufl.edu.

JUNE 14—Course: Personal Protection Equipment (PPE) and Safety Procedures, Gainesville, FL. Presented by the University of Florida TREEO Center. Call (352) 392-9570 or visit www.treeco.ufl.edu.

JUNE 15—Course: Understanding Hazardous Waste in Solid Waste Operations, Gainesville, FL. Presented by the University of Florida TREEO Center. Call (352) 392-9570 or visit www.treeco.ufl.edu.

JUNE 15—Course: Health and Safety for Solid Waste Workers-4 Hours, Gainesville, FL. Presented by the University of Florida TREEO Center. Call (352) 392-9570 or visit www.treeco.ufl.edu.

JUNE 15—Course: Asbestos Refresher: Inspector, Jacksonville, FL. Presented by the University of Florida TREEO Center. Call (352) 392-9570 or visit www.treeco.ufl.edu.

JUNE 15—Course: Asbestos Refresher: Management Planner, Jacksonville, FL. Presented by the University of Florida TREEO Center. Call (352) 392-9570 or visit www.treeco.ufl.edu.

JUNE 15-16—Workshop: ADaPT Training Workshop (Laboratories), Royal Palm Beach, FL. Presented by Laboratory Data Consultants FL Inc. Call (561) 512-9956.

JUNE 15-18—Course: Backflow Prevention Assembly Tester Training and Certification, Gainesville, FL. Presented by the University of Florida TREEO Center. Call (352) 392-9570 or visit www.treeco.ufl.edu.

JUNE 15-18—Course: Introduction to Backflow Prevention, Gainesville, FL. Presented by the University of Florida TREEO Center. Call (352) 392-9570 or visit www.treeco.ufl.edu.

JUNE 15-18—Course: Water Facilities Security and Response Systems Training, Tallahassee, FL. Presented by the University of Florida TREEO Center. Call (352) 392-9570 or visit www.treeco.ufl.edu.

JUNE 16—Course: 4-Hour Refresher Course for Spotters at Landfills, C&D Sites and Transfer Stations, Gainesville, FL. Presented by the University of Florida TREEO Center. Call (352) 392-9570 or visit www.treeco.ufl.edu.

JUNE 16—Course: Spotter Training for Solid Waste Facilities, Gainesville, FL. Presented by the University of Florida TREEO Center. Call (352) 392-9570 or visit www.treeco.ufl.edu.

JUNE 16—Course: Asbestos Refresher: Contractor/Supervisor, Jacksonville, FL. Presented by the University of Florida TREEO Center. Call (352) 392-9570 or visit www.treeco.ufl.edu.

(352) 392-9570 or visit www.treeco.ufl.edu.

JUNE 16-17—Course: Microbiology of Activated Sludge, Gainesville, FL. Presented by the University of Florida TREEO Center. Call (352) 392-9570 or visit www.treeco.ufl.edu.

JUNE 17-18—Workshop: ADaPT Training Workshop (Data Users), Royal Palm Beach, FL. Presented by Laboratory Data Consultants FL Inc. Call (561) 512-9956 or visit www.ldcfl.com.

JUNE 17-26—Course: Backflow Prevention Assembly Tester Training and Certification, Lake Worth, FL. Presented by the University of Florida TREEO Center. Call (352) 392-9570 or visit www.treeco.ufl.edu.

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

JUNE 20-23—Conference: American Water Works Association 2010 Annual Conference and Exhibition, Chicago, IL. Call 1-800-926-7337 or visit www.awwa.org.

JUNE 21-23—Course: Backflow Prevention Assembly Repair and Maintenance Training and Certification, Lake Buena Vista, FL. Presented by the University of Florida TREEO Center. Call (352) 392-9570 or visit www.treeco.ufl.edu.

JUNE 21-23—Course: Lead: Inspector, Gaines-

ville, FL. Presented by the University of Florida TREEO Center. Call (352) 392-9570 or visit www.treeco.ufl.edu.

JUNE 22-23—Course: Cross-Connection Control: Survey and Inspection, Gainesville, FL. Presented by the University of Florida TREEO Center. Call (352) 392-9570 or visit www.treeco.ufl.edu.

JUNE 23-26—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.treeco.ufl.edu.

JUNE 24-25—Course: Lead: Risk Assessor, Gainesville, FL. Presented by the University of Florida TREEO Center. Call (352) 392-9570 or visit www.treeco.ufl.edu.

JUNE 29-30—Course: Water Facilities Security and Response Systems Training, Gainesville, FL. Presented by the University of Florida TREEO Center. Call (352) 392-9570 or visit www.treeco.ufl.edu.

July

JULY 1—Course: Water Distribution System Security, Gainesville, FL. Presented by the University of Florida TREEO Center. Call (352) 392-9570 or visit www.treeco.ufl.edu.

JULY 12-15—Conference: AMTA Annual Con-

ference & Exposition, Membrane Technology: The Wave of the Future as Arrived, San Diego, CA. Presented by the American Membrane Technology Association. Call (772) 463-0820.

JULY 12-16—Course: Asbestos: Contractor/Supervisor, Gainesville, FL. Presented by the University of Florida TREEO Center. Call (352) 392-9570 or visit www.treeco.ufl.edu.

JULY 13-15—Course: Asbestos: Project Design, Gainesville, FL. Presented by the University of Florida TREEO Center. Call (352) 392-9570.

JULY 14-15—Course: Florida Water Conservation Coordinator Training, Altamonte Springs, FL. Presented by the University of Florida TREEO Center. Call (352) 392-9570 or visit www.treeco.ufl.edu.

JULY 14-16—Conference: American Water Resources Association, Florida Section, Key West, FL. Contact Dave Watt at d watt@s jrwm d.com or (386) 329-4355 or visit www.awraflorida.org.

JULY 15-17—Seminar: 2010 Florida Section ASCE Annual Meeting, Harbor Beach Marriott Resort, Ft. Lauderdale, FL. Presented by the Florida Section of the American Society of Civil Engineers. Visit www.fla-asce.org.

JULY 17-21—Conference: FPMA Convention and Trade Show, Gaylord Palms Resort, Kissimmee, FL. Presented by the Florida Petroleum Marketers & Convenience Store Association. Call 1-800-523-9166 or visit www.fpma.org.

UF TREEO Center
UNIVERSITY of FLORIDA

NEW COURSE

Florida Water Conservation Coordinator Training

The purpose of this course is to enhance skill sets of current water conservation practitioners or to train new or emerging individuals by providing a body of knowledge on current water conservation topics and initiatives in the state of Florida.

July 14-15, 2010 Altamonte Springs

Aug. 31-Sep. 1, 2010 Tampa

Oct. 7-8, 2010 Jacksonville

Time 8:30 am – 5:00 pm

\$395 | CEUs: 1.6 | FDEP OCP DW/WW/DS CEUs: 1.4: Basic: 43773

Students will learn to:

- Develop an understanding of the broad range of water conservation measures
- Know where to go (the who, what, when, where, why and how) to obtain the latest water conservation information
- Understand the basics of changing Floridians behavior as it relates to the use of water

Excellence in Environmental Training

www.treeco.ufl.edu

Coordinator: Laurel Brown,
lbrown@treeco.ufl.edu
352/392-9570 ext 231
Register online:
www.treeco.ufl.edu/wct or
contact Josette Rassel,
jrassel@treeco.ufl.edu
352/392-9570 ext 212

Register Early and Save Big!

Special Focus:
Numeric Nutrient Criteria
2010 Legislative Update
Statewide Stormwater Rule



2010 Annual Conference

June 9-11, 2010 • Sanibel Harbour Marriott Hotel

Keeping Pace with New Water Quality Strategies

Featured Speakers:

Jim Giattina, Director of the Office of Water, EPA
David Moore, Executive Director, SWFWMD

Go to www.florida-stormwater.org for a complete agenda and registration details.

Switch from ground to surface water as source causing headaches for PSJ

By BLANCHE HARDY, PG

In September 2009, the city of Port St. Joe brought its \$21 million state-of-the-art alternative surface water treatment plant on-line in compliance with the Northwest Florida Water Management District's water needs assessment.

The district found that public water supplies could be threatened by saltwater intrusion should groundwater supplies continue to be pumped from the Floridan Aquifer underlying southern Gulf County.

Like the majority of public water sup-

pliers in Florida, Port St. Joe had to find an alternative source of drinking water.

The new 6-million-gallon capacity Port St. Joe Water Treatment Plant processes and distributes approximately 1.5 million gallons a day of fresh surface water withdrawn from the Gulf County Fresh Water Canal off the Chipola River.

The plant's treatment capacity affords the city the option of expanding its service area to become the regional water supplier in the southern portion of the county. PSJ currently provides water within the city limits, as well as to customers in a number of

surrounding communities.

Larry McClamma, the new plant's chief operator, said the city's wells and groundwater treatment plant, which formerly processed about 1.7 MGD of potable water, are being maintained in accordance with the city's NFWMD permit, but they are not contributing to the water supply.

While PSJ no longer depends on groundwater for potable supply and the treatment plant mechanically functions as intended, the age and makeup of some components comprising the city's distribution system and their reaction to the switch from "hard" groundwater to "soft" surface water have left the city with a water quality compliance issue and a number infrastructure problems requiring prompt attention.

The city is in the midst of negotiating a consent order with the Florida Department of Environmental Protection to address trichloromethane, a chlorine disinfectant by-product detected in excess of the state's drinking water standard. Exacerbating the problem but not the risk, water from the new plant also ran red and infused with scale in some areas.

The city's distribution system contains components installed as early as 1936. The addition of corrosion inhibitors to the water supply, a standard practice undertaken to promote the establishment of a protective coating on the interior walls of the distribution system's pipes, caused rust and minerals deposited within the system's pipes, valves and fire hydrants to be released, hence the red water.

Lynn Todd, a biologist and assistant

plant manager, characterized the problems as "aging infrastructure in a distribution system that is (in some cases) 60-70 years old."

"The plant can go to chloramines now or in the immediate future," she said. Drinking water is disinfected prior to distribution by one of two dominant chemicals, either chlorine or chloramines.

Disinfection utilizing chloramines may address the THM issue, but given the age and condition of some of the distribution system's components and segments, switching at this time could result in more water quality problems.

The ammonia in chloramines may be converted by naturally occurring bacteria through nitrification to form nitrites and nitrates. This could potentially result in loss of disinfectant residuals and lead to more aggressive corrosion resulting in the release of lead and copper from pipes and solder.

"The city has installed auto flushers in the more troublesome locations to address the immediate problem," Todd said in describing the city's actions to address the THM issue in the near term.

"Recalculating pumps have been installed in two of the underground water storage tanks while an exhaust fan has been installed in one of the tanks to vent off some of the disinfectant by-products," she said.

PSJ has also received a \$50,000 grant from the NFWMD to make emergency repairs the failing hydrants within the system.

Environmental Services

FL: (813) 626 - 1717 WWW.TEAMZEBRA.COM NC: (919) 424 - 6122

Michael G. Czerwinski, P.A.
ENVIRONMENTAL CONSULTANTS
 • Permitting
 • Phase 1 ESA's
 • Wetland Delineation
 • Water Quality Studies
 • Gopher Tortoise Relocation
 • Environmental Impact Assessment
 • Listed Species & Habitat Assessments & Mapping
 (877) 249-1012
 www.MGCenvironmental.com • Lecanto, FL 34461

16th Annual
FLORIDA REMEDIATION CONFERENCE
 Tools, Techniques and Practices
 October 14-15, 2010
 Radisson Worldgate Resort, Kissimmee
 Call 1-800-881-6822 for information

RFP Responses Made Easy!
 We Manage the Process from Start to Finish...
 rfp services online.com
 • Timeline • Editing • Printing
 • Graphic Design • Marketing
 • "Short-list" Presentation Package
 1-800-970-1995 • www.rfpservicesonline.com

SouthArc, Inc.
 Providing archaeological and historical services since 1989:
 Survey • Site assessment • Mitigation Interpretation • Litigation support
 www.southarc.com

Innova Technologies
Clear Solutions for Remediation Professionals
Susan Bostian, P.E.
 susan@innoveatech.com
 (919) 342-2944
 www.innoveatech.com

Pace Analytical
 Florida Laboratory
 • Full Drinking Water & Environmental Testing Services
 • NELAC Accredited, NAICS 541380
 • Monitoring for: CERCLA, RCRA, NPDES, SDWA, UCMR, RCRA/UST
 Three convenient Florida locations to serve you:
 Ormond Beach Tampa Jacksonville
 Fourteen labs & nine service centers nationwide!
 Simply call: 386-672-5668
 Inquiries: Mike.Valder@pacelabs.com

LAKELAND LABORATORIES
Prompt. Accurate. At a Fair Price.
 • Solid & Chemical Materials
 • Non-Potable Water
 • Hazardous Waste
 • Pesticides & PCBs
 • Petroleum Waste
 • Chapter 62-713, FAC
 • EPA Method 18
 (863) 686-4271

KNOW BEFORE YOU DRILL
 ASR & Deep Injection Well Site Characterization
 Hydroseismic imaging can map hazardous fault zones, karst collapses, and fractured confining units where migration of effluent to underground sources of drinking water is highly probable
WALKER MARINE GEOPHYSICAL CO.
 Call 561-251-5352
 www.walkermarinegeo.com • info@walkermarinegeo.com

Gary A. Maier, P.E., Esq.
 Attorney at Law & Professional Engineer
 Web: www.garyamaier.com
 Phone: (239) 935-9948
 Email: gary@garyamaier.com
 Focusing on Environmental, Regulatory, and Administrative Law, including Permitting, Compliance, Enforcement, and Relief.
 Available Statewide in Florida
 No Fee or Cost for Initial Consultation
 Office: Lee County

HCR
 HANDEX CONSULTING & REMEDIATION, LLC
 30941 Suneagle Drive
 Mt. Dora, FL 32757
 Phone: 352-735-1800 x127
 Fax: 352-735-5990
 iheath@handexmail.com
Specializing in
 • Consulting & Remediation
 • Construction and UST Removals
 • Site Assessments / Brownfields
 • System Design, Installation and O&M
 • Sludge Dewatering
 • Mobile Remediation / Drilling
 • Health & Safety, Mold Remediation
 • Emergency Response Services 365-24-7
 www.handex.com

Providing quality drilling services with quality people and equipment
HD Huss Drilling
 Environmental drilling • Exploration Geotechnical drilling • Wire line coring
 All terrain and barge rigs
 (352) 567-9500 • Toll-free: 1-800-487-9665
 www.hussdrilling.com
 Offices in Dade City, Bonifay and Monticello

URS
 An Environmental Leader in Florida and Around the World
 Stormwater TMDLs
 Groundwater NPDES
 Water Quality Assessments
 Wastewater Mitigation Design
 Potable Water Remedial Design
 Reclaimed Water Brownfields
 www.urscorp.com

ENVIRONMENTAL DRILLING SERVICE inc.
 Celebrating 20 Years of Service 1989 - 2009
Auger, Rotary, Geoprobe Truck and ATV-Mounted Services Statewide
 Phone: (407) 295-3532 • E-mail: Doug@edsenvironmental.com
 www.edsenvironmental.com

Environmental Remediation Services, Inc.
 760 Talleyrand Avenue
 Jacksonville, FL 32202
 (800) 718-5598; (904) 791-9992
 Info@ersfl.com
 - 24/7 Emergency Spill Response
 - Site Remediation Contractor
 - Industrial Cleaning
 - Vacuum Truck/Tanker Transportation
 - Hazardous/Nonhaz Waste
 - Drum Disposal
 - Roll-Off Transportation
 - Licensed UST Contractor
 PCC 048415

AVS AMERICAN VIBRACORE SERVICES
 85' Research Vessel
 24' Shallow Draft Vessel
 Vibracoring, Mini-CPTs
 Hydrographic Surveys
 ROV/AUV Platform
 ACOE Certified Lab
 Buoy Placement/Retrieval
 Video Surveys, Dive Platform
 www.AmericanVibracore.com • Phone 561-372-0500 • Info@AmericanVibracore.com

Geophysical Surveying Services
GeoView
 "Experience is What Makes Us Different"
 • Environmental/Brownfields Investigations
 • Karst/Sinkhole Studies
 • Utility Designation/Vacuum Excavation
 • Rebar/Post Tension Cable Identification
 • Geological Characterization
 • Archaeological/Water Resources
 • Concrete/Pavement/Bridge Deck Evaluation
 Offices Throughout Florida | Since 2002 | MBE / SDB / DBE Certified
 www.geoviewinc.com | 1-888-832-6436

FPL plant upgrades will save millions, provide environmental benefits

By PRAKASH GANDHI

Officials at Florida Power & Light are touting the environmental benefits of a new \$1.1 billion power plant. The new plant in Port St. John will replace an old oil and gas plant and be up and running before the 2013 hurricane season, say company officials.

In addition, the company plans to modernize its power plants in Riviera Beach and Cape Canaveral to high-efficiency natural gas units that employ the latest technology.

Florida Power & Light says the move will save customers hundreds of millions of dollars and will provide major environmental benefits.

"The new units will improve air quality by reducing particulate emissions by 88 percent at these sites and improve the plants' carbon dioxide emission rate by more than 50 percent," said FPL spokeswoman Jackie Anderson.

Earlier this year, FPL scrapped plans to build new plants in Brevard County and

Riviera Beach.

This followed a decision by the Florida Public Service Commission to reject a proposed 30 percent rate increase that would have generated \$1.27 billion.

A Massachusetts-based environmental consultant conducted a four-year, \$1 million study that found that particulate matter from FPL's plant slightly increase the risk of asthma attacks and other health problems.

In addition, officials conducting the study found that FPL's plant contributed 7 percent over background concentrations of fine soot pollution near the plant.

The company announced plans for the plant upgrade shortly after the study's release.

FPL officials say the new plant will bring a major economic boost to the region and alleviate health concerns.

Several hundred temporary construction jobs will be added and the upgrades

The new plant in Port St. John will replace an old oil and gas plant and be up and running before the 2013 hurricane season.

will generate about \$12 million in tax revenue in the first year alone to Brevard County local taxing authorities.

"The new units will save customers \$850-\$950 million over the life of the plants as compared to keeping the existing facilities in the fleet," said Anderson.

She said modernizing the two plants will create demand for 1,300 direct and 4,000 indirect jobs during the construction period.

FPL's \$1 billion natural gas conversion of its Riviera Beach plant in Palm Beach County is expected to be operational by 2014.

Both plants currently burn a mixture of heavy fuel oil and natural gas. The firm says the upgrades should reduce particle pollution from each plant by 90 percent.

The current generating units at the Riviera power plant went into service in 1962 and 1963 and generate 280 megawatts of power each.

The Riviera Beach Next Generation Clean Energy Center, scheduled to go on-line in 2014, will feature a combined cycle natural gas unit capable of producing 1,250

megawatts of electricity.

Cape Canaveral's existing units came on-line in 1965 and 1969 and generate 400 megawatts of power each.

The Cape Canaveral Next Generation Clean Energy Center, scheduled to go into service in 2013, will also feature a combined cycle natural gas unit capable of producing 1,250 megawatts of power.

FPL says the new units will be much more efficient than the existing facilities, using at least 33 percent less fuel to produce the same amount of power.

The primary water source for the cooling system will be the Intracoastal Waterway/Indian River.

FPL will also make some environmental improvements at each site. For example, the office buildings will feature rooftop solar panels to help power the facilities.

Modernizing the two plants is contingent upon whether or not FPL is granted approval to construct a third natural gas unit at the company's facility in Palm Beach County.

Without the new West County unit, FPL will not have a sufficient reserve margin of generating capacity to take the Riviera Beach and Cape Canaveral plants off-line to upgrade them.

GROWTH

From Page 10

local governments typically do not include such developing industries in their lists of permitted uses.

- Significant litigation will follow each comprehensive plan amendment. Critics of HTD believe that comprehensive plan amendments will be more contentious than before as litigation will ensue over wording of ballots, campaign methods and voting results.

- Hometown Democracy will actually increase urban sprawl. Most comprehensive plans were written in the 1980s and have only received piecemeal edits over the years. They are intended to be working documents, designed to change over time and adjust to growth. Failing to update comprehensive plans could create more sprawl, not less.

- We live in a representative democracy, not a true democracy. The citizens of the country and the state are governed by elected officials as their representatives. If a resident does not agree with the decisions of his elected official, he can vote the official out. HTD proposes a true democracy type of system, which conflicts with the current system in place at all levels of government.

A St. Pete Beach case study

Critics of HTD refer to the city of St. Pete Beach as an example of the problems that HTD will create. St. Pete Beach became the test case for HTD after city officials amended their comprehensive plan to increase allowable height and density. Fearing rows of tall hotels along the barrier island, anti-growth activists organized a petition to undo the changes. The city's voters approved the measure, repealing the revised height and density values and amending the city's charter to require all comprehensive plan amendments to pass voter approval. Until that time, no other city provided the voters with such broad decision-making authority.

A second petition was organized by the business community that proposed a more developer-friendly comprehensive plan amendment. This petition was also approved by the voters. In response, critics filed suit against the city. The litigation is ongoing and legal bills have exceeded \$500,000, a sizable amount for a city of only 10,000 residents.

The result is that development has come to a halt and no new land use plan amendments have been approved.

In the November 2009 election, the residents of St. Pete Beach voted to reduce the amount of comprehensive plan amendments that require referenda to only those affecting building height, density, intensity of use, or land use category. On Jan. 26, 2010, the City Commission approved a resolution urging city residents to vote against HTD.

Coordinated and organized opposition

As expected, the development and business community has united a strong coalition

of organizations against HTD, including the Florida Chamber of Commerce, Florida American Planning Association, Florida League of Cities, Florida State Council of Machinists and Aerospace Workers, and Florida Health Care Associations.

Frank Ortis, President of Florida State Council of Machinists and Aerospace Workers said "It's not too often that a union leader and a business leader agree on something, but we can all see how much HTD would hurt Florida's working families. And we are working together to defeat it."

What is even more interesting is that 1000 Friends of Florida, a bipartisan growth management group with members originating from development and environmental backgrounds, opposes HTD.

1000 Friends of Florida argues that the proposal would turn the planning process into a series of high-priced media campaigns that favor wealthy developers, and result in piecemeal, rather than comprehensive, planning.

They further raise concerns that HTD will promote sprawl as voters block growth in existing communities—the "Not in My Backyard" syndrome. HTD could also result in backlash legislation to weaken planning requirements and legal gridlock through court challenges, 1000 Friends says.

Final thoughts

The simple truth is that we do not know the real impact that HTD may have on land use, growth management, jobs or Florida's economy. No one can be sure what the real outcome will be.

We believe that the growth management process in Florida is in need of an overhaul. While innovative and well intended, Florida's system of land use planning and growth management is not perfect.

That said, HTD is by no means the "silver bullet." While backers of HTD may be well intentioned, the net result of HTD enactment will not necessarily be reasoned and appropriate growth management and land use decision-making.

There is no reason to believe that the electorate will somehow be empowered by enactment of HTD, nor will the electorate be in a position to understand or render informed decision-making. While these are admirable goals, the HTD initiative, in our view, falls far short of the mark.

John J. Fumero is a former general counsel of the South Florida Water Management District and specializes in environmental and water law. He is a board certified federal and state government and administrative practice lawyer as well as a certified circuit and county court mediator. He is a partner at Rose, Sundstrom & Bentley, LLP and can be reached at jfumero@rsbattorneys.com.

Thomas F. Mullin is an associate at Rose, Sundstrom & Bentley, LLP and specializes in environmental and land use law. He is a LEED accredited professional and can be reached at tmullin@rsbattorneys.com.

Water & Wastewater Services

PAT'S PUMP + BLOWER
Providing Pump and Blower Sales and 24-hour Service Since 1985
 Phone: 407.841.7867 • Toll Free: 800.359.7867
 www.patspump.com • E-mail: patspump@aol.com

Greenway Electrical Services, LLC
Lift Station Specialist
 Orlando, FL
 License #: EC0001094 • (407) 532-2778
 cduffield@greenwayelecsc.com
 www.greenwayelecsc.com
 A Veteran Owned Company

SEVERN TRENT SERVICES
 Our process technologies include DeepBed filtration, Denite® denitrification, Higgins Loop™ continuous ion exchange, Submerged Aerated Filters (SAF) and ColOX™ ammonia nitrification and BOD removal.
 Tetra Process Technologies
 5415 W. Sligh Avenue, Suite 102
 Tampa, FL 33634
 Tel: 800-364-3931
 813-886-9331
 Fax: 813-886-0651
 Mobile: 813-240-0261
 E-mail: dslack@severntrentservices.com www.severntrentservices.com

LANZO
 Living Services, Inc.
Fred Tingberg, Jr.
 Director of Business Development
 www.Lanzo.net FredT@Lanzo.org
 125 S.E. 5th Ct. 28137 Groesbeck Hwy.
 Deerfield Beach, FL 33441 Roseville, MI 48066
 Office: (954) 973-9700 Office: (586) 775-5819
 Cell: (954) 931-4430

MWH
 BUILDING A BETTER WORLD
 FLORIDA'S LEADING EXPERT IN WATER AND WASTEWATER
 813-221-1981
 CAPE CORAL • MIAMI • SARASOTA • SUNRISE • TAMPA • W. PALM BEACH

HAZEN AND SAWYER
 Environmental Engineers & Scientists
 Hollywood • Coral Gables • Boca Raton • Fort Pierce
 Tampa • Sarasota • Jacksonville • Miami Beach
 www.hazenandsawyer.com
 Water | Wastewater | Utility Management
 Stormwater | Environmental Studies

FILTER MEDIA
Leaders in...
 Filter Media Removal, Disposal & Installation
Suppliers of...
 • Filter Media to all levels of Government, Industrial and Commercial Plants & Installations
 • Anthracite Filter Media—Sands & Gravels, Garnet, Ilmenite, Activated Carbon, Green Sand
 • Filter Media which meets or exceeds AWWA Specifications
One Source for...
 QUALITY • VALUE • SERVICE
AnthraFilter Inc.
 5700 Escondida Blvd., Unit 201, St. Petersburg, FL 33715
 TEL: 1-800-998-8555 FAX: 727-865-0905
 www.anthrafilter.net

16th Annual FLORIDA REMEDIATION CONFERENCE
 Tools, Techniques and Practices
 October 14-15, 2010
 Radisson Worldgate Resort, Kissimmee
 Call 1-800-881-6822 for information

www.ceuplan.com
 • CEU Plan® is approved for wastewater and water related continuing education credits
 • approved for pdh's – professional engineers
 • approved for ceu's – DW and WW operators
 • over 150 courses to choose from starting at \$9.95
 • largest online in USA – approved in over 40 states for your multiple state licenses

PROFESSIONAL PIPING SERVICES
The Piping System Cleaning Specialists
 Over 17 MILLION feet of Force Mains, Potable Water, Fire Protection and Industrial Systems SUCCESSFULLY and Safely Cleaned
Free Technical Brochure Available
CERTIFIED UNDERGROUND UTILITY CONTRACTOR
 License # CU-CO55717
 P.O. Box 7337, Zephyrhills, FL 33543
(813) 994-0032; Fax (813) 907-0902
1-800-780-6098
 www.professionalpiping.com

Hudson
PUMP & EQUIPMENT
 A Division of Tencarva Machinery Company
PUMPS • PUMP STATIONS CONTROLS • REPAIRS
 NASH VACUUM ITT A-C PUMP
 GORMAN-RUPP JOHN CRANE
 THERMOFISHER ALLWEILLER
 ITT-GOULD'S PUMPS MILTON ROY
 ROSEDALE FILTERS WILDEN
 3524 Craftsman Blvd., Lakeland, FL 33803
 Phone: (863) 665-7867 Fax: (863) 667-2951
 E-mail: NateGeiger@HudsonPump.com
 Web address: www.HudsonPump.com

NOTES

From Page 3

DEP will allow the firm to submit an alternative cleanup plan.

Jones Edmunds thinks the best solution would be to extract the gas from the groundwater by installing solar and wind vents in wells. Turbines in the wells would accomplish the desired venting in existing wells and wells that might need to be added.

Hospital waste guidance. DEP recently issued a guidance document to help categorize waste from hospitals and to determine if a waste is hazardous and regulated under state law and the federal Resource Conservation and Recovery Act.

Waste from pharmaceuticals that can be defined as hazardous can be managed as "universal waste." This P-listed waste or "acutely hazardous" waste must have unused preparations and spills disposed of as universal waste. Empty bottles and partially used IV bags are included.

Compliance can be achieved by following simple guidelines, according to DEP.

No thanks to brownfield. Some property owners in Indian River County objected to being included in property proposed for designation as a brownfield.

Officials from INEOS New Plant BioEnergy LLC looking to build a bioethanol plant on 69 acres requested the

designation for its possible economic development benefits if pollution was found.

Surrounding property owners were included to extend these benefits, but many of these owners say they don't want even the perception of possible contamination on their land.

News on fines. A proposed DEP consent order will fine Pinellas County \$5,000 for wastewater violations at a landfill, which is part of the waste-to-energy incinerator.

Contaminants such as nitrogen were above allowable limits six times in three months last summer after rain caused discharges to overflow a storage pond.

The county also will have to pay \$1,000 in related costs and make \$26.8 million in improvements at the landfill and pond. These improvements must start next year and are part of the county's construction plans.

Officials with the U.S. Environmental Protection Agency have asked representatives for the city of Marco Island and Quality Enterprises to meet with them to negotiate a settlement agreement related to allegations of improperly handling cement pipes containing asbestos.

The settlement could avoid charges against the city and contractor for violating the Clean Air Act during the construction of Collier Boulevard around five years ago.

MacGRAW

From Page 10

from the Inland Protection Trust Fund in DEP to assess low scored sites.

Funds will be made available on a first-come, first-served basis and will be limited to 10 sites in each fiscal year for each responsible party or property owner.

- The bill deletes the provisions relating to funding for limited interim soil-source removals, which sunsets June 30, 2010.

- Finally, for fuel service station facilities that have orders issued by the DEP before July 1, 2010, granting an extension to the Dec. 31, 2009 deadline pertaining to fuel tank upgrades to secondary containment systems, the bill requires DEP to extend the deadline to Sept. 30, 2011. The facilities must be in compliance with all other state and federal regulations pertaining to petroleum storage systems. The bill will have an effective date of July 1, 2010.

While these provisions were being created and finalized, the budget process was in full swing.

The DEP had asked for a budget of \$132 million for the cleanup program, Governor Crist had suggested \$144 million, the Senate established their original budget number at \$140 million and the House had their number at \$120 million.

Near the end of the session in March, the FPMA implemented a well planned lobbying effort focused on the jobs impact of this program and its impact on Florida's economy. The theme was "Put Florida Back to Work," with essential information provided in both handout materials and dedicated Web sites in each legislator's name to allow legislators and their aides to review the information and become better educated.

This campaign was very effective and set the stage for the final budget number being higher than last year's \$90 million. The final budget conferencing produced a \$120 million suggested number that is now on Governor Crist's desk awaiting signature along with the program changes discussed above.

The effort expended this year by all parties working for a more sustainable program budget is hard to measure. However, we learned that it will now take a yearlong effort to educate legislators in order to keep the program adequately funded.

Don't sit on the sidelines! Become active with the FPMA, FGWA or FAPG. We know there will be even more budget pressure next year with additional shortfalls in the state's revenue collections. Get involved! Your livelihood depends on it!

Glenn R. MacGraw, PG, is the Northwest Florida regional manager at the FGS Group. He can be reached at (850) 504-1300 or gmacgraw@thefgsgroup.com.

Environmental Services



Complex environmental issues? Ask Golder.

Boca Raton + 1 561 994 9910
Gainesville + 1 352 336 5600
Jacksonville + 1 904 363 3430
Tampa + 1 813 287 1717

Golder Associates

southeastolutions@golder.com www.golder.com

HBEL, Inc. Environmental Testing Services
PALM CITY 772-465-8584
SANFORD 407-322-4686
WWW.HBEL.COM

Sanders Laboratories, Inc. Environmental Testing Services
NOKOMIS 941-488-8103
FORT MYERS 239-590-0337
WWW.SANDERSLABS.NET

Quality, Integrity, Service

7 Days/Week Receipt & Analysis

Courier Services

Standard and Custom Reports
'Paperless' Reporting available
Electronic Data Deliverable Formats

DEP SOP Compliant Field Sampling
Diel Studies, Compositors and Monitoring Wells
Drinking Water THMs, HAAs, SOCs, VOCs

Extensive NELAC Certified Analyte Listing
Safe Drinking Water, Clean Water and Solid and Chemical Waste Programs

IDEAL TECH SERVICES, INC.

SOP-Compliant Sampling for:

- Groundwater
- Surface Water
- Soil / Sediment
- Industrial Waste
- Landfill Gas Monitoring
- Remediation System Removal / Transport
- System Modification
- O & M / Repairs
- Flow Proportional

Centrally Located in Ocala • 352-502-3407

Mobile Labs • MIP Services

- GCMS/GC (8260, 8021) Volatiles • Pesticides/PCBs

Membrane Interface Probe (MIP)
FDEP Required Individual Mobile Lab
NELAP Certification
WMBE Certified

Phone: 352-367-0073 www.kbmobilelabs.com

SUBSURFACE EVALUATIONS, INC.

Engineering Geology and Geophysics
Offices in Tampa & Orlando

- Advanced Geophysical™ Site Characterization
- Ground Penetrating Radar
- Electrical Resistivity Imaging
- Roadway Geophysics
- Concrete Scanning
- Locate Buried Utilities
- Environmental & USTs
- Buried Metal Location

www.SEI-Tampa.com 1-800-508-2509

ADLER TANK RENTALS

A national provider of tank and container rentals for the storage of hazardous and non-hazardous liquids and solids.

Specializing in frac tanks, weir tanks, vacuum tanks, dewatering and roll-off containers.

Greg Bloom
greg.bloom@adlertankrentals.com
(727) 639-2564

www.adlertankrentals.com

Quality work with a 3-day TAT

NELAC Certified, ADAPT
W/MBE, SBE, SFWMD,
PBC, WPB, School boards

Palm Beach Environmental Laboratories, Inc.
(561) 689-6701

ENVIRONMENTAL RISK MANAGEMENT, INC.

Assessment, Remediation, Insurance, Tank and Forensic Services

Stephen F. Hilfiker • steve@ermi.net
1-888-ENV-MGMT • 1-888-368-6468
www.ERMI.net

Classified Advertising

Business Development Associate

Columbia Analytical Services, an employee-owned, full service analytical laboratory network, is looking for a Business Development Associate to conduct sales and marketing activities, primarily in the Jacksonville, FL area. The ideal candidate would have at least an AA degree in the natural sciences, some experience in a production laboratory setting, and excellent writing and presentation skills. Please send resume to ashepard@caslab.com.

CAS is an Equal Opportunity Employer.

Chemist

Columbia Analytical Services, an employee-owned, full service analytical laboratory network, is looking for a Chemist in either classical wet chemistry or in semi-volatile organics, to work in the Jacksonville, FL laboratory. The ideal candidate would have at least a BS degree in the natural sciences, 3-5 years experience in a production laboratory setting, and excellent organizational and documentation skills. Please send resume to ashepard@caslab.com.

CAS is an Equal Opportunity Employer.

**City of Tallahassee Program Engineer
Water and Sewer Engineering**

This position requires graduation from a four year college or university with a degree in Civil Engineering or related field and five years of professional experience. Preference will be given to applicants having longer experience with work concentrated in the areas of water and sewer infrastructure planning, design and construction.

Must possess registration as a professional engineer at the time of application. Incumbent must attain a registration as a professional engineer in the State of Florida within one year from date of employment.

Salary range: \$44,512 - \$102,294

If interested, apply online at talgov.com no later than July 16, 2010. (Job Req. No. 100147)

28 offices throughout the Southeast



Environmental Services • Natural & Cultural Resources • Occupational Health & Safety • Water Resources
Solid Waste Engineering • Geotechnical Engineering • Construction Materials Engineering & Testing

Tampa 813-623-6646 Orlando 407-327-9537

MACTEC

When you need Results, Experience and Peace of Mind.

All across Florida, MACTEC helps clients manage risk, preserve the environment, and reduce the cost of construction and ownership.

Please visit us at **www.mactec.com**

Air and Water Resources
Assessment and Remediation
Environmental Engineering
Facilities Engineering
Geotechnical Engineering
Transportation Engineering
Telecommunications Services
UST / Pre Approval Services



FLORIDA REMEDICATION CONFERENCE

Tools, Techniques and Practices
October 14-15, 2010

Radisson Worldgate Resort, Orlando

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, now in its 16th year, will again focus on the issues of soil and groundwater contamination cleanup in Florida's unique physical and regulatory environment. **Plus this year—based on abstracts we received over the past few years—we are expanding our technical focus to include surface water cleanup.**

Engineers, scientists, hydrogeologists, project managers, regulators, compliance managers, consultants, attorneys, equipment vendors and others 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 on risk assessment/RBCA, bioremediation, natural attenuation, emerging technologies, mixed waste challenges, site assessment technologies and methods, site stabilization, combined strategies, vapor intrusion,

regulatory policy and initiatives and cleanup of sites and surface water contaminated with petroleum, PCBs, solvents, arsenic and heavy metals, pesticides and other contaminants.

We are looking for papers on proven technologies with real-world applicability to Florida and appreciate data-heavy presentations and a "roll up the sleeves" approach to your presentation.

Submission Instructions

We have started reviewing subject matter to be included on the

2010 FRC agenda. If you are interested in being a part of our conference, submit an abstract of approximately 250 words **by June 30, 2010**. FRC presentations are strictly limited to 25 minutes in length. Mail or e-mail abstracts to **Florida Remediation Conference**, P.O. Box 2175, Goldenrod, FL 32733; or E-mail: mrest@enviro-net.com

Conference Producer

The Florida Remediation Conference, now in its 16th year, is produced and sponsored by National Technical Communications Co. Inc., publisher of the *Florida Specifier* and producer of the Enviro-Net Web site, providing on-line news and archival access to print publication articles.

The *Florida Specifier*, NTCC's state-based, industry-leading trade newspaper for over three decades, regularly covers the soil and groundwater remediation 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 at (407) 671-7777 or 1-800-881-6822, or on-line at info@enviro-net.com should you have any questions or need additional information about FRC 2010.

Exhibit and Sponsorship Opportunities

FRC Exhibit Space: \$855

Exhibit space is available throughout the hotel's conference center. Specific booth locations are reserved on a first-come, first-served basis, pending receipt of deposit. Each exhibitor will be provided with a 8' x 10' space, one draped table and a chair, a company description in the conference program, one full conference registration (registration for additional booth personnel from the exhibiting company only are available for \$200 each) and a list of FRC 2010 participants. Note: Firms that reserve space early will be included in exhibitor lists in the *Specifier* and on-line at www.enviro-net.com.

FRC Luncheon Sponsor: Sold out

Luncheon Sponsors will receive recognition during the conference through prominently displayed signage and literature, acknowledgment in the conference program and its cover, one full conference registration and a list of FRC 2010 participants. More importantly, a representative from each Luncheon Sponsor will have an opportunity to briefly introduce their firm and discuss their capabilities during their sponsored luncheon. (Two available, Day One and Day Two)

FRC Reception Sponsor: Sold out

Reception Sponsors will receive recognition through signage, acknowledgment in the conference program, one full conference registration and a final list of participants. In addition, a representative from each Reception Sponsor will have an opportunity to briefly introduce their firm and discuss their capabilities at some point during the conference. (Four available)

FRC Session Sponsor: \$175

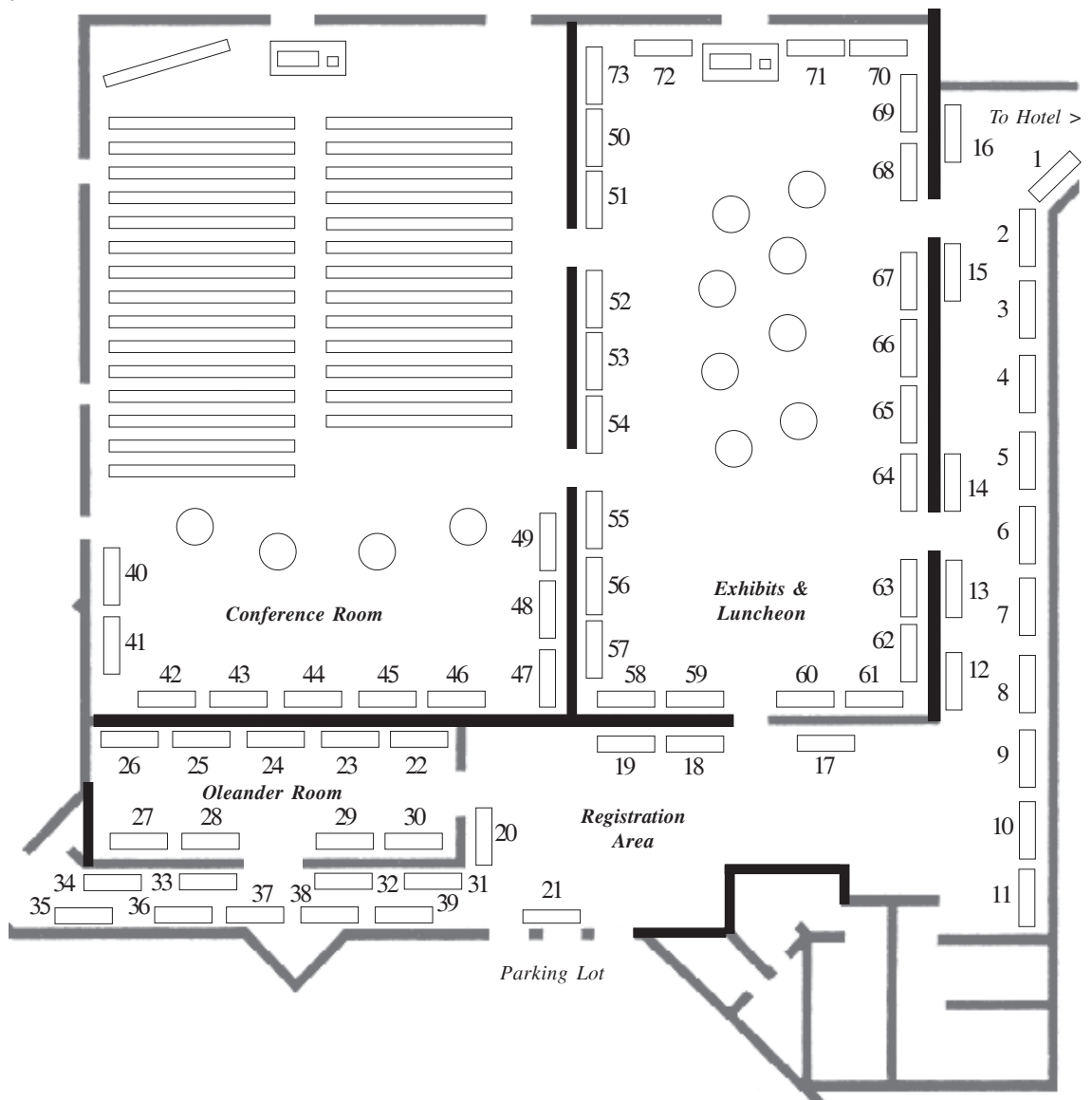
FRC 2010 includes a total of eight technical program sessions, seven of which may be sponsored. Representatives from each Session Sponsor will introduce the two, three or four speakers in their session, and lead the Q&A following each talk. Note: Sessions sponsors must be exhibitors or registered attendees.

FRC Literature Distribution: \$175

Can't make it to FRC 2010? Let your marketing literature do your talking. Your company brochure will be included in all conference registration packages and will also be distributed at our sponsor table throughout the conference.

FRC 2010 Slide Show Ad: \$100

For both days, before and after sessions, we will run a slide show in the conference hall that will include messages from conference management and exhibitors. Use your slide to announce a special drawing, new product or service, equipment on display in the parking lot or any other item of interest to attendees.



We have a dozen booths still available for the 2010 conference.
If you would like more information,
call (407) 671-7777 or visit www.enviro-net.com.

Gulf Oil Spill Lab Analysis



Photo: US Coast Guard

Columbia Analytical has expert chemists and capacity to support large-scale sampling activities for your Gulf spill project. (including logistics and method development)

Polycyclic Aromatic Hydrocarbon (PAH) Analysis with trace-level analytical capability in water, sediment, and tissue matrices, including 'extended' compound lists and specialized cleanup procedures to eliminate false positives and/or elevated detection limits.

Alkylated PAH Analysis to aid in identifying the source of contamination.

Petroleum Hydrocarbon Analysis, including alkane fraction analysis and forensic approaches.

Dispersant Analysis for determining specific components of dispersant (Corexit 9500 and Corexit 9527), including ultra low detection using LC/MS/MS.

Petroleum Hydrocarbons in Air Analysis, including EPA TO-15, Massachusetts APH, and EPA TO-17.



www.caslab.com/spill

Steve Packard - 386.672.3539 | Tom Kissinger - 904.394.4408

Increasing aquifer nitrate levels could pose problems with waterbody nutrient reductions

By ROY LAUGHLIN

Nitrate levels in some parts of the Floridan Aquifer are increasing dramatically and the highest values are above the EPA standard of 350 parts per billion.

That's the finding of Robert Knight, PhD, president of Wetland Solutions Inc. in Gainesville. His conclusion is based on analysis of four decades of water quality data available from the Florida Department of Environmental Protection and other sources.

The occurrence of elevated nitrate levels in the aquifer is localized. In general, most occurs along the Florida Ridge from the neck of the peninsula south to the Peace River basin.

Two areas are notably high: around Gainesville and at the south end of the ridge, in the Peace River basin. The nitrate is clearly coming from surface sources.

"Water from the upper parts of the aquifer is higher in nitrogen than discharges from lower in it," said Knight.

And even with the scarcity of early data, since 1970 nitrate levels have been increasing. The earliest data show that most often early measurements were at the detection limits, somewhere between 20 and 50 ppb.

Now, contemporary data sets show that large areas of the aquifer have nitrate levels of 200 ppb. Fanning Springs is 350 ppb, equal to the EPA standard for these waters.

Little investigation has been done to clearly delineate the sources, but Knight suggests that major contributors are agriculture, rapid infiltration basins and septic tanks.

He noted that every watershed has its own source characteristics, but that in those with significant agriculture (for example, the Peace River watershed), nitrate levels tend to be highest.

Geology also plays a role. In areas where the Hawthorne layer is an effective barrier, or wetlands sequester the nitrates, the aquifer below has little, if any, nitrate excess.

In areas with sand over Karst, nitrates have easy passage to the aquifer. In the absence of organic carbon, the nitrates will not be reduced by microbial metabolism and will accumulate.

Knight says the ecological consequences in the aquifer appear to be slight. But if that groundwater reaches the surface, then the nitrate is a nutrient that will lead to eutrophication.

With numeric nutrient criteria in the works for Florida's surface waters, the role of nitrate contamination of aquifer source water could play a big role in reaching reduction goals.

At this point, it could take a decade to define the extent of the nitrate contamination and its levels, and then to develop a reduction plan, said Knight. If that plan were effective, it could be half a century before nitrate levels were significantly reduced in the Floridan Aquifer. Those are Knight's estimates, based on an aquifer turn over period of 30-50 years.

Nitrates in groundwater do not seem to be high on the priority list of regulatory issues. Whether the phenomenon will influence numerical water quality criteria, or vice versa, remains to be seen.

Florida Specifier

August Special Focus:

Enviro-Labs 2010

List your lab in our 2010 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 issue of the *Florida Specifier*, we include a directory of environmental labs providing services in the state.

You're invited to complete the form below, providing details about your firm and its analytical capabilities. **There is a fee of \$200 to list your lab this year.** (Fee waived for advertisers and FRC exhibitors.) In addition to your listing in the directory, **your lab will also be included in the 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 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 9, 2010.**

(If you were listed last year, we will be in touch. Do not complete this form.)

Laboratory name: _____

Primary Florida address: _____

City, State, Zip: _____

Phone: _____ Fax: _____

E-Mail: _____ Web: _____

Additional locations: _____

Contact: _____ Title: _____

Lab capabilities/specialties: _____

Sample types: _____

Certifications: _____

Additional services: _____

Number of years in business: _____ years

Staff: Total: _____ Engineers/scientists: _____ Technicians: _____

What impact is advancing technology having on your lab? _____

Are you a current advertiser? _____ Yes _____ No

Contact us about: _____ Advertising in the *Specifier's* Lab Focus issue

_____ Submitting a column for the *Specifier's* Lab Focus issue



Index to Display Advertisers

Advertiser (Florida Representative)	Telephone	Page
URL/E-mail (if available)	Facsimile	
ADVANCED ENVIRONMENTAL LABS	(904) 363-9350	4
www.aellab.com	(904) 363-9354	
ADVENTUS GROUP	1-888-295-8661	2
www.adventusgroup.com	(815) 235-3506	
AECOM	www.aecom.com	6
BEEMATS	(386) 428-8578	7
www.beemats.com	(386) 428-8879	
CARBON SERVICE & EQUIPMENT	(407) 313-9113	8
www.carbonservice.net	(407) 313-9114	
CLARK ENVIRONMENTAL	1-800-276-2187	7
www.thermaltreatment.com	(863) 425-2854	
COLUMBIA ANALYTICAL SERVICES	(904) 739-2277	16
www.caslab.com	(904) 739-2011	
CROM CORPORATION	(352) 372-3436	3
www.cromcorp.com	(352) 372-6209	
CUSTOM DRILLING SERVICES	1-800-532-5008	2
www.customdrilling.net	(863) 425-9620	
ETEC LLC	(813) 972-1331	6
www.etecllc.com		
FLORIDA STORMWATER ASSOCIATION	1-888-221-3124	11
www.florida-stormwater.org	850/222-4124	
FLOWERS CHEMICAL LABS	1-800-669-LABS	6
www.flowerslabs.com	(407) 260-6110	
GEOPROBE SYSTEMS	(352) 212-4080	5
www.geoprobe.com		
IN-SITU RENTALS	1-800-446-7488	5
www.in-situ.com		
JAEE ENVIRONMENTAL SERVICES	(954) 476-8333	4
www.jaeeenvironmental.com	(954) 476-8347	
LABORATORY DATA CONSULTANTS OF FL	(561) 753-0483	2
www.ldcfl.com	(561) 771-1721	
MARCOR ENVIRONMENTAL	(813) 749-8629	8
www.marcor.com	(813) 749-8630	
MARINCO BIOASSAY LABORATORY	1-800-889-0384	7
www.toxtest.com	(941) 922-3874	
PC&B ENVIRONMENTAL LABORATORIES	(407) 359-7194	5
www.pcb laboratories.com	(407) 359-7197	
PREFERRED DRILLING SOLUTIONS	(727) 561-7477	7
www.pdsflorida.com	(727) 561-9028	
ST. JOHNS RIVERKEEPER	(904) 256-7591	9
www.stjohnsriverkeeper.org		
TM / ECON MITIGATION AREA	(407) 876-2755	5
jclark31@cfl.rr.com	(407) 876-5284	
UNIV OF FLORIDA TREEO CENTER	(352) 392-9570	11
www.doce.ufl.edu/treeo	(352) 392-6910	
ZEBRA ENVIRONMENTAL CORP	(813) 655-1717	9
www.teamzebra.com	(813) 654-9398	